Form to submit re	e/YV8PLFwXa	0	0	0	0	0
0	0	Task Informatic	0	0	0	0
Timestamp	Grade Level:	Topic:	Type:	Task Name	Description	Link
###########	Geometry	#DEĞER!	Task	Transversals	to introduce	stadel.blogspo
###########	Geometry	#DEĞER!	Task	Distance	sliced prompts	ogle.com/docu
###########	1st grade	#DEĞER!	Curriculum	grade	thinking tasks	openupresour
###########	2nd grade	#DEĞER!	Thin Slice	Analog Clock	reading a	ogle.com/pres
###########	8th grade	#DEĞER!	Thin Slice	Solving	problems on	ogle.com/docu
###########	8th grade	#DEĞER!	Thin Slice	change from	list of stories	ogle.com/docu
###########	Helpful	0	0	0	0	0
###########	Helpful	0	0	0	0	0
###########	Helpful	0	0	0	0	0
###########	Helpful	0	0	0	0	0
###########	Algebra	#DEĞER!	Curriculum	1 BTC Tasks -	Algebra 1	om/alg1btc
###########	Algebra	#DEĞER!	Thinking Task	- Real World	basic pictures	ogle.com/docu
###########	Geometry	#DEĞER!	Task	Distance	sliced prompts	ogle.com/docu
###########	Geometry	#DEĞER!	Task	Transversals	to introduce	stadel.blogspo
###########	Kindergarten	#DEĞER!	Curriculum	Resources for	thinking tasks	openupresour
###########	8th grade	Solving Equatic	0	Equations	0	
###########	8th grade	Solving Equatic	0	Equations	0	ogle.com/form
###########	8th grade	Solving Equatic	0	Property Intro	0	ogle.com/pres
###########	8th grade	Solving Equatic	0	Standard	more difficult	Form to Slope-
###########	8th grade	Volume of Cylir		Cylinders,	0	0
###########	8th grade	Volume of Cylir	0	0	0	0
###########	8th grade	Solving Equatic	0	Two-Step	0	https://docs.go
###########	8th grade	Solving Equatic	0	Multi-Step	0	Equations
###########	8th grade	Solving Equatic	0	Solving	0	https://drive.go
###########	8th grade	Solving Equatic	0	Multi-step	0	https://drive.go
###########	8th grade	Solving Equatic	0	Task for	0	https://hailston
###########	8th grade	Solving Equatic	0	Solving Linear	0	Solving Linear
###########	8th grade	Solving Equatic	0	Equations with	0	https://docs.go
###########	8th grade	Solving Equatic	0	Multi-Step	0	https://docs.go
###########	8th grade	Solving Equatic	0	One and two	0	Slideshow with
###########	8th grade	Solving Equatic	0	Multi-step	Increasingly	https://docs.go
###########	8th grade	Solving Equatic	0	solving	0	http://slamdun
###########	8th grade	Solving Equatic	0	Algebraic	0	0
###########	8th grade	Solving Equatic	0	Multi-step	0	https://docs.go
###########	8th grade	Solving Equatic		Solving	0	0
###########	8th grade	Rational/Irratior	0	Open Locker	0	https://090202
###########	8th grade	Rational/Irratior	0	Comparing/Or	0	don newman
###########	8th grade	Rational/Irratior	0	Estimating	0	https://docs.go
###########	8th grade	Rational/Irratior	0	SUPER BEAR	0	https://docs.go
###########	8th grade	Rational/Irratior	0	Identifying	0	https://docs.go
###########	8th grade	Rational/Irratior		Rational/Irratio	0	0
###########	8th grade	Radical & Integ	0	Adapted	0	https://hailston
###########	8th grade	Radical & Integ	0	Full Lesson -	Lesson plan	Exponent
###########	8th grade	Radical & Integ	0	Perfect	Lesson plan	Perfect
###########	8th grade	Radical & Integ	0	Evaluating	0	https://docs.go
###########	8th grade	Radical & Integ	0	Bullseye/Targe	0	https://docs.go
###########	8th grade	Radical & Integ	0	Exponent	notes layout	https://docs.go
###########	8th grade	Radical & Integ	0	Product Rule	Thin Slice	Document
###########	8th grade	Radical & Integ	0	Exponents	0	1) Nrich
###########	8th grade	Radical & Integ	0	Perfect	0	1) Cheezits

###########	8th grade	Radical & Integ		0	Perfectly		0	https://artofpro
###########	8th grade	Radical & Integ			Radical &		0	0
###########	8th grade	Pythagorean Th		0	Thin Sliced	Expanded		Pythagorean
###########	8th grade	Pythagorean Th		0	Mindset		0	https://drive.go
###########	8th grade	Pythagorean Th		0	Discovering		0	Discovering
###########	8th grade	Pythagorean Th		0	Squares		0	http://slamdun
###########	8th grade	Pythagorean Th		0	Ant		0	Ant
###########	8th grade	Pythagorean Th		0	Full Lesson -	thin slice		Full Lesson
###########	8th grade	Pythagorean Th		0	Expanded	Train Problem		Expanded
###########	8th grade	Pythagorean Th			Pythagorean		0	0
###########	8th grade	Functions 8.F.A		0	0		0	0
###########	8th grade	Functions 8.F.A			Functions		0	0
###########	8th grade	Connection Pro		0	Discovering y	Two-day		Discovering y
###########	8th grade	Connection Pro		0	Deriving the	Thin slicing -		Deriving the
###########	8th grade	Connection Pro		0	Barbie Bungee		0	https://www.fa
###########	8th grade	Connection Pro		0	Slope-		0	https://docs.go
###########	8th grade	Connection Pro		0	Slope to	This is just a		https://docs.go
###########	8th grade	Connection Pro		0	Unit on		0	https://docs.go
###########	8th grade	Connecting Pro			Connecting		0	0
###########	8th grade	Congruence an		0	Similar		0	https://www.op
###########	8th grade	Congruence an		0	Transformatio		0	https://docs.go
###########	8th grade	Congruence an		0	Scale Factor		0	https://docs.go
###########	8th grade	Congruence an		0	Transformatio		0	https://www.op
###########	8th grade	Congruence an		0	Rotations BTC		0	https://docs.go
###########	8th grade	Congruence an		0	Reflections			https://docs.go
###########	8th grade	Congruence an		0	Translations		0	slidesgo
###########	8th grade	Congruence an		0	Ms. Pac-Man		0	https://robertk
###########	8th grade	Congruence an		0	Two Truths		0	https://docs.go
###########	8th grade	Congruence an		0	Mixed Review		0	https://www.te
###########	8th grade	Congruence an		0	Congruence		0	http://tasks.illu
###########	8th grade	Congruence an		0	Dilations		0	https://docs.go
###########	8th grade	Congruence an			Congruence		0	0
###########	8th grade	Bivariate Data &			Bivariate Data		0	0
###########	8th grade	Full Year Reso		0	Meaningful		0	Meaningful
###########	8th grade	Full Year Reso		0	Activity		0	https://docs.go
###########	8th grade	Full Year Reso		0	Curriculum		0	Grade 8 CCSS
###########	8th grade	Full Year Reso		0	Teaching		0	https://090202
###########	8th grade	Full Year Reso			Full		0	0
###########	7th grade	Unit Rates and		0	Best Coins to	Dan Meyer		https://danmey
###########	7th grade	Unit Rates and		0	Unit	Students will		https://docs.go
###########	7th grade	Unit Rates and		0	Solutions	Solution 1		https://data.art
###########	7th grade	Unit Rates and		0	The Candy Jar	Students will		NCTM Mr.
###########	7th grade	Unit Rates and		0	Scaled Copies	Future		Teacher Copy
###########	7th grade	Unit Rates and		0	Water Bottle	What is		http://mr-
###########	7th grade	Unit Rates and		0	Similar		0	https://www.op
###########	7th grade	Unit Rates and		0	Best Deal	Problem set to		https://docs.go
###########	7th grade	Unit Rates and			Unit Rates and		0	0
###########	7th grade	Statistics (Sam		0	Multiplying two	A short task		https://docs.go
###########	7th grade	Statistics (Sam		0	Which traffic	I did this over		https://docs.go
###########	7th grade	Statistics (Sam		0	Valentine	Variability		http://tasks.illu
###########	7th grade	Statistics (Sam		0	Mr. Brigg's	Sample data		http://tasks.illu
###########	7th grade	Statistics (Sam		0	Simulating a	Design & Use		https://docs.go
###########	7th grade	Statistics (Sam		0	Compound			https://docs.go
###########	7th grade	Statistics (Sam		0	Counting	A task about		https://www.m
###########	7th grade	Statistics (Sam			Statistics		0	0
###########	7th grade	Rational Numbe	Notes		Additive	DESMOS Hot		Notes Additive
###########	7th grade	Rational Numbe	Thinking Task		Additive	DESMOS Hot		LINK
###########	7th grade	Rational Numbe		0	GeoGebra	Zero-Sum		Link
###########	7th grade	Rational Numbe		0	Adding and	These are		https://docs.go

###########	7th grade	Rational Numbe		0	Limbo: An	Objective:	Link
###########	7th grade	Rational Numbe		0	Shopping	Spending	Integers
###########	7th grade	Rational Numbe		0	intro to adding	This is a video	https://mathisv
###########	7th grade	Rational Numbe		0	Integer	Interactive tool	https://www.fis
###########	7th grade	Rational Numbe		0	g	Cooking with	https://www.d4
###########	7th grade	Rational Numbe	Notes		Integer Sort	Students go	https://docs.go
###########	7th grade	Rational Numbe	Thin Slice		Integer Sort	Students go	Integer Sort
###########	7th grade	Rational Numbe		0	Adding	All letters of	https://docs.go
###########	7th grade	Rational Numbe		0	Develop	I had students	https://docs.go
###########	7th grade	Rational Numbe		0	Exponent	Do a similar	https://www.in
###########	7th grade	Rational Numbe		0	Multiplying and	Notes to	https://docs.go
###########	7th grade	Rational Numbe		0	Subtracting	Notes to	https://docs.go
###########	7th grade	Rational Numbe		0	Absolute	Notes to	https://docs.go
###########	7th grade	Rational Numbe		0	Rational	Converting	https://docs.go
###########	7th grade	Rational Numbe		0	Unusual	Adding and	https://docs.go
###########	7th grade	Rational Numbe		0	Decomposing	Adding and	https://docs.go
###########	7th grade	Rational Numbe		0	https://teachert	6th grade	https://teachert
###########	7th grade	Rational Numbe		0	Desmos Hot	Adding and	https://teacher.
###########	7th grade	Rational Numbe		0	Subtracting	Make the	https://docs.go
###########	7th grade	Rational Numbe		0	Multiplying and	Task string for	https://docs.go
###########	7th grade	Rational Numbe		0	Adding	Task string for	#2 Adding
###########	7th grade	Rational Numbe	Notes		Temperature	Find missing	Temperature
###########	7th grade	Rational Numbe	Thinking Task		Temperature	Find missing	https://www.m
###########	7th grade	Rational Numbe		0	24	Make the	
###########	7th grade	Rational Numbe			Rational	0	0
###########	7th grade	Other Resource		0	Balancing	0	Link
###########	7th grade	Other Resource		0	Genius Blocks	0	Link
###########	7th grade	Other Resource		0	Percents	Students were	https://drive.go
###########	7th grade	Other Resource		0	Absolute	sequence of	https://docs.go
###########	7th grade	Other Resource		0	Integer	Activities to	Link
###########	7th grade	Other Resource			Other	0	0
###########	7th grade	Geometry (Ang		0	Triangle	Desmos	https://teacher.
###########	7th grade	Geometry (Ang		0	Band Around	Challenging	https://docs.go
###########	7th grade	Geometry (Ang		0	Full Lesson -	thin slices,	Full lesson link
###########	7th grade	Geometry (Ang		0	Full Lesson -	thin slices,	Full lesson link
###########	7th grade	Geometry (Ang		0	Circumference	Thin slicing	Thin sliced:
###########	7th grade	Geometry (Ang		0	Volume	First, I will	https://docs.go
###########	7th grade	Geometry (Ang		0	Area of	I saw	Compound
###########	7th grade	Geometry (Ang		0	Angle Facts -	thin slice, cyu,	Full lesson link
###########	7th grade	Geometry (Ang		0	Vertical and	Print out one	0
###########	7th grade	Geometry (Ang		0	Constructing	Using 3	https://nrich.m
###########	7th grade	Geometry (Ang		0	Slicing 3D	Investigate	https://docs.go
###########	7th grade	Geometry (Ang			Geometry	0	0
###########	7th grade	Expressions, E		0	Percent	Thin slicing	Percent
###########	7th grade	Expressions, E		0	Desmos Twin	Students are	https://teacher.
###########	7th grade	Expressions, E		0	Task: Fencing	Students	https://docs.go
###########	7th grade	Expressions, E		0	Multi-step	Add 'em Up:	Equations Add
###########	7th grade	Expressions, E		0	Two-Step	Directions:	https://www.op
###########	7th grade	Expressions, E		0	Distributive	Directions:	Distributive
###########	7th grade	Expressions, E		0	OUR, grade 7,	Thin slicing to	https://docs.go
###########	7th grade	Expressions, E		0	Add 'Em Up	Students work	https://drive.go
###########	7th grade	Expressions, E		0	Multiplicative	15 problems	Multiplicative
###########	7th grade	Expressions, E		0	Bill's Fence	This is	https://docs.go
###########	7th grade	Expressions, E		0	Woody's Raise	Students	https://www.10
###########	7th grade	Expressions, E		0	Equations	Thin Slicing:	https://teacher.
###########	7th grade	Expressions, E		0	Solve one	thin slices,	Solve One
###########	7th grade	Expressions, E		0	Distributive	thin slices,	Distributive
###########	7th grade	Expressions, E		0	Distributive	Thin Slice and	Thin Slice
###########	7th grade	Expressions, E		0	Clothesline	Students	https://estimati

###########	7th grade	Expressions, E		0	Pool border	Students write	https://www.ke
###########	7th grade	Expressions, E		0	Pig pen	Students write	https://mathpr
###########	7th grade	Expressions, E		0	I'm thinking of	Students write	f
###########	7th grade	Expressions, E		0	Number Tricks	Write	https://blythevil
###########	7th grade	Expressions, E		0	0	Works with	https://tasks.ill
###########	7th grade	Expressions, E		0	0	Several level	Math 7 Unit 1: -
###########	7th grade	Expressions, E		$0,00	Card sorts,	Various card	https://drive.go
###########	7th grade	Expressions, E		0	Simplify and	Multiple days-	https://docs.go
###########	7th grade	Expressions, E		0	Algebraic	Solving	Thinking
###########	7th grade	Expressions, E			Expressions,	0	0
###########	7th grade	Full Year Reso		0	7th Grade	0	0
###########	7th grade	Full Year Reso		0	IM Community	0	https://docs.go
###########	7th grade	Full Year Reso		0	algebra	Full 8th Grade	https://090202
###########	7th grade	Full Year Reso		0	Open Middle	I found this	https://www.op
###########	7th grade	Full Year Reso		0	Curriculum	https://docs.go	Grade 7 CCSS
###########	7th grade	Full Year Reso		0	Notes Packets	Notes Packets	https://drive.go
###########	7th grade	Full Year Reso		0	Dr. Austin's	Worksheets	https://www.dr
###########	7th grade	Full Year Reso		0	The Centre for	The Problem	CEMC - Web
###########	7th grade	Full Year Reso	Full		na	Open Up	https://access.
###########	7th grade	Full Year Reso			Full	0	0
###########	6th grade	0		0	0	0	0
###########	6th grade	Statistics (dot p		0	Full Lesson -	thin slices,	Full Lesson
###########	6th grade	Statistics (dot p		0	Interquartile	“Oh no! I	https://drive.go
###########	6th grade	Statistics (dot p		0	Range Tasks	Students use	https://docs.go
###########	6th grade	Statistics (dot p		0	Exploring	Students are	https://docs.go
###########	6th grade	Statistics (dot p		0	Exploring	Students are	https://docs.go
###########	6th grade	Statistics (dot p		0	Dot Plots	Interpreting	https://docs.go
###########	6th grade	Statistics (dot p		0	Dot Plots	Create a dot	https://drive.go
###########	6th grade	Statistics (dot p		0	Mean, Median	Find data sets	https://nrich.m
###########	6th grade	Statistics (dot p		0	Mean, Median,	Find data sets	https://nrich.m
###########	6th grade	Statistics (dot p		0	Mean	Given a set of	https://nrich.m
###########	6th grade	Statistics (dot p		0	Mean, Median,	Find data sets	Google Slides
###########	6th grade	Statistics (dot p		0	Matching	The mean,	0
###########	6th grade	Statistics (dot p			Statistics (dot	0	0
###########	6th grade	Ratios, Rates, a		0	Rates full	thin slices,	Full Lesson
###########	6th grade	Ratios, Rates, a		0	Proportional	thin slices,	Full Lesson
###########	6th grade	Ratios, Rates, a		0	Percents full	thin slices,	Full Lesson
###########	6th grade	Ratios, Rates, a		0	dime thieves	weight to value	https://danmey
###########	6th grade	Ratios, Rates, a		0	Turning Green	Equivalent	https://access.
###########	6th grade	Ratios, Rates, a		0	Lunchtime	Fractions of a	https://nzmath
###########	6th grade	Ratios, Rates, a		0	Exam Scores	Students use	https://tasks.ill
###########	6th grade	Ratios, Rates, a		0	Shirt Sale	Students use	http://tasks.illu
###########	6th grade	Ratios, Rates, a		0	What’s a Fair	Each student	https://resourc
###########	6th grade	Ratios, Rates, a		0	Sharing Costs	0	https://www.m
###########	6th grade	Ratios, Rates, a		0	Security	0	https://www.m
###########	6th grade	Ratios, Rates, a		0	Fractions/Deci	see p.105	https://www.ali
###########	6th grade	Ratios, Rates, a		0	12 Cookies	How many	0
###########	6th grade	Ratios, Rates, a		0	Partial Product	How much	https://www.ali
###########	6th grade	Ratios, Rates, a		0	Nana's	Can the	http://threeacts
###########	6th grade	Ratios, Rates, a		0	Nana's Paint	Is it possible to	https://www.10
###########	6th grade	Ratios, Rates, a		0	Rope Jumper	How many	https://gfletchy
###########	6th grade	Ratios, Rates, a		0	Let It Flow	How long will it	https://gfletchy
###########	6th grade	Ratios, Rates, a		0	Fast Clapper	Will he beat	https://tapintot
###########	6th grade	Ratios, Rates, a		0	Mullet Ratio	What is the	Here are
###########	6th grade	Ratios, Rates, a		0	Clothesline	Use a	https://kristena
###########	6th grade	Ratios, Rates, a		0	Super Bear	How many	0
###########	6th grade	Ratios, Rates, a			Ratios, Rates,	0	0
###########	6th grade	Rational Numbe		0	Downside Up	Find	https://www.citi
###########	6th grade	Rational Numbe		0	Howard	Some great	Link

###########	6th grade	Rational Numbe	0	Integer War	Use to	https://docs.go
###########	6th grade	Rational Numbe	0	Unusual	Adding and	https://docs.go
###########	6th grade	Rational Numbe	0	Comparing	Place the	https://www.op
###########	6th grade	Rational Numbe	0	Converting a	Write an	https://docs.go
###########	6th grade	Rational Numbe	0	Comparing	TPT free	https://www.te
###########	6th grade	Rational Numbe	0	Clothesline	Use a	https://kristena
###########	6th grade	Rational Numbe		Rational	0	0
###########	6th grade	Operations with	0	Converting	Online puzzles	https://www.tra
###########	6th grade	Operations with	0	Adding	Saw this on	https://mathigo
###########	6th grade	Operations with	0	Verbalizing	Tasks to get	https://docs.go
###########	6th grade	Operations with	0	Dividing	Tasks to see	https://docs.go
###########	6th grade	Operations with	0	Decimal	Using PV chart	https://docs.go
###########	6th grade	Operations with	0	adding,	progressive	https://docs.
###########	6th grade	Operations with	0	Adding and	practice	https://docs.go
###########	6th grade	Operations with	0	Bridget's	A fraction to	https://docs.go
###########	6th grade	Operations with	0	Special Ops-	Task Cards for	https://docs.go
###########	6th grade	Operations with	0	Order of	20 basic,	https://docs.go
###########	6th grade	Operations with	0	Order of	Each row has	https://docs.go
###########	6th grade	Operations with	0	Order of	A google form	https://docs.go
###########	6th grade	Operations with	0	Shopping	Spending	https://docs.go
###########	6th grade	Operations with	0	Order of	Make the	https://www.op
###########	6th grade	Operations with	0	0	0	0
###########	6th grade	Operations with	0	Order of	Writing as	https://www.op
###########	6th grade	Operations with	0	Penny A Day	Introduction to	https://tapintot
###########	6th grade	Operations with	0	Thin slicing	attached link is	https://docs.go
###########	6th grade	Operations with	0	Adding and	This uses the	https://docs.go
###########	6th grade	Operations with	0	Smallest and	0	0
###########	6th grade	Operations with	0	Amazing Offer	Which deal is	https://090202
###########	6th grade	Operations with	0	Checkerboard	How many	https://www.ali
###########	6th grade	Operations with	0	Route Product	Which route	https://nrich.m
###########	6th grade	Operations with	0	Decimal	0	https://docs.go
###########	6th grade	Operations with	0	Twos to Nines	How many	https://matheq
###########	6th grade	Operations with	0	5-4-3-2-1	How many	https://matheq
###########	6th grade	Operations with	0	Foxy Fives	Use five	https://www.fa
###########	6th grade	Operations with	0	Four Fours	Use Four 4's	https://www.gl
###########	6th grade	Operations with		Operations	0	0
###########	6th grade	Greatest Comm	0	Prime Time	Game with 1-	https://www.yo
###########	6th grade	Greatest Comm	0	Writing	Rewrite a	https://docs.go
###########	6th grade	Greatest Comm	0	Prime Climb	Ask students	https://drive.go
###########	6th grade	Greatest Comm	0	Counting	How many	http://natbantin
###########	6th grade	Greatest Comm	0	Factors and	Explore	https://nrich.m
###########	6th grade	Greatest Comm	0	Prime Climb	Explore	https://mathforl
###########	6th grade	Greatest Comm	0	Geared Up	How many	https://gfletchy
###########	6th grade	Greatest Comm	0	Hot Dogs from	How many hot	https://robertk
###########	6th grade	Greatest Comm	0	Tax Man (Tax	Can you beat	https://www.pe
###########	6th grade	Greatest Comm		Greatest	0	0
###########	6th grade	Geometry (area	0	Volume full	thin slices,	Full lesson link
###########	6th grade	Geometry (area	0	Surface Area	thin slices,	Full lesson link
###########	6th grade	Geometry (area	0	Area full	thin slices,	Full lesson link
###########	6th grade	Geometry (area	0	Perimeter full	thin slices,	Full lesson link
###########	6th grade	Geometry (area	0	Surface area	Goes from	https://docs.go
###########	6th grade	Geometry (area	0	Volume thin	guides kids	https://docs.go
###########	6th grade	Geometry (area	0	Missing Side	Students solve	Area Maze
###########	6th grade	Geometry (area	0	Area of a	Students	https://matheq
###########	6th grade	Geometry (area	0	Area of a	Notice &	Trapezoid
###########	6th grade	Geometry (area	0	Area of a	Students use a	Trapezoid
###########	6th grade	Geometry (area	0	Area of	Students	https://drive.go
###########	6th grade	Geometry (area	0	Area of	Set up to be	https://docs.go
###########	6th grade	Geometry (area	0	Area of	Contains 3-4	https://twitter.c

############	6th grade	Geometry (area		0	Area of	Use the	https://www.op
############	6th grade	Geometry (area		0	Overflow from	How many	https://gfletchy
############	6th grade	Geometry (area		0	Packing	How many	https://gfletchy
############	6th grade	Geometry (area		0	Got Cubes	How many	https://gfletchy
############	6th grade	Geometry (area		0	Area and	Create a	https://docs.go
############	6th grade	Geometry (area		0	Area and	Create a	https://www.op
############	6th grade	Geometry (area		0	Girl Scout	How many girl	https://www.10
############	6th grade	Geometry (area		0	Pop Box	Design a pop	http://mrpiccm
############	6th grade	Geometry (area		0	Candy Cartons	Students will	https://www.m
############	6th grade	Geometry (area		0	File Cabinet	How many	http://mr-
############	6th grade	Geometry (area			Geometry	0	0
############	6th grade	Algebraic Conc		0	Combining	thin slices,	https://docs.go
############	6th grade	Algebraic Conc		0	CYU-	Check Your	https://docs.go
############	6th grade	Algebraic Conc		0	Introduction to	Thin Slicing	https://docs.go
############	6th grade	Algebraic Conc		0	Addition	Thin Slicing	https://docs.go
############	6th grade	Algebraic Conc		0	Introduction to	Thin slicing	https://drive.go
############	6th grade	Algebraic Conc		0	Writing	Thin slicing;	https://docs.go
############	6th grade	Algebraic Conc		0	6.EE. 3, 4	Thin Sliced	https://docs.go
############	6th grade	Algebraic Conc		0	Combining	Use	https://docs.go
############	6th grade	Algebraic Conc		0	Writing	Moves	https://curricul
############	6th grade	Algebraic Conc		0	Stacking Cups	How many	http://slamdun
############	6th grade	Algebraic Conc			Algebraic	0	0
############	6th grade	Full Year Reso	Full Year		Year in	0	0
############	6th grade	Full Year Reso	Full Year		0	Multiple Tasks	https://www.sc
############	6th grade	Full Year Reso	Full Year		Rources from	Ideas and	Resourceaholi
############	6th grade	Full Year Reso	Full Year		Problem-	Grade 6 Tasks	https://docs.go
############	6th grade	Full Year Reso	Full Year		Increasingly	Multiple grade	https://taylorda
############	6th grade	Full Year Reso	Full Year		Curriculum	Full year of	https://docs.go
############	6th grade	Full Year Reso			Full Year	0	0
############	5th grade	Operations and		0	0	0	0
############	5th grade	Operations and		0	Order of	Thin-slicing	https://docs.go
############	5th grade	Operations and		0	Order of	How should	Order of
############	5th grade	Operations and		0	Order of	Link contains	https://docs.go
############	5th grade	Operations and		0	Operations	0	0
############	5th grade	Operations and		0	0	0	0
############	5th grade	Numbers and C		0	Thin Slicing -	Word	https://docs.go
############	5th grade	Numbers and C		0	0	0	0
############	5th grade	Numbers and C		0	Multiply and	Thin slice, cyu,	Full lesson -
############	5th grade	Numbers and C		0	Think Slicing	Before	https://docs.go
############	5th grade	Numbers and C		0	Thin Sicing	Before	https://docs.go
############	5th grade	Numbers and C		0	https://fraction	Thin Slicing	https://docs.go
############	5th grade	Numbers and C		0	All things	link contains	https://fraction
############	5th grade	Numbers and C		0	Dividing	_	https://docs.go
############	5th grade	Numbers and C		0	Multiplying	Link contains	https://docs.go
############	5th grade	Numbers and C		0	Thin Slicing	Before	https://drive.go
############	5th grade	Numbers and C	Notes		Add &	Link contains	https://docs.go
############	5th grade	Numbers and C		0	Add &	Link contains	k
############	5th grade	Numbers and C		0	The Unusual	Students	In the book
############	5th grade	Numbers and C		0	0	0	0
############	5th grade	Number and Op		0	Thin Slicing -	Lesson Plans	https://docs.go
############	5th grade	Number and Op		0	Thin Slicing -	Lesson Plans	https://docs.go
############	5th grade	Number and Op		0	Multiply	Students	https://docs.go
############	5th grade	Number and Op		0	Target	Rich task	https://drive.go
############	5th grade	Number and Op		0	BK Meal Deal	Link contains	0
############	5th grade	Number and Op		0	Number and	0	0
############	5th grade	Number and Op		0	Exponents and	Students	https://docs.go
############	5th grade	Number and Op		0	Decimal	https://docs.go	https://docs.go
############	5th grade	Number and Op		0	The Deca	How many	https://nrich.m
############	5th grade	Number and Op		0	Number and	0	0

############	5th grade	Number and Op	0	Number and	0	0	
############	5th grade	Measurement &	0	Line Plots	Most of this is	https://docs.go	
############	5th grade	Measurement &	0	Volume	Link contains	https://docs.go	
############	5th grade	Measurement &	0	Measurement	0	0	
############	5th grade	Geometry 5.G	0	Geometry 5.G	0	0	
############	5th grade	Full Year Reso	0	Tracey Bean	0	https://docs.go	
############	5th grade	Full Year Reso	0	MARS Tasks	Multiple Tasks	https://www.sc	
############	5th grade	Full Year Reso	0	Curriculum	Full year of	https://docs.go	
############	5th grade	Full Year Reso	0	Full	0	0	
############	4th grade	Use place-valu	0	3 Act Task for	0	Arcade 3 act	
############	4th grade	Use place-valu	0	Exploding	Builds visual	Exploding	
############	4th grade	Use place-valu	0	Use place-	0	0	
############	4th grade	Understand dec	0	Understand	0	0	
############	4th grade	Solve problems	0	Solve	0	0	
############	4th grade	Represent and	0	Represent and	0	0	
############	4th grade	Geometric mea	0	Geometric	0	0	
############	4th grade	Generate and a	0	Generate and	0	0	
############	4th grade	Generate and a	0	Number	Students find	https://www.yo	
############	4th grade	Generate and a	0	Generate and	0	0	
############	4th grade	Extend underst	0	Comparing	Full lesson	Equivalent	
############	4th grade	Extend underst	0	Dividing	This includes	Dividing	
############	4th grade	Extend underst	0	The Unusual	Students	Thinking	
############	5th grade	0	Thin Slice	Mean, Median	Ontario	https://docs.go	
############	High school -	0	Thin Slice	Simplifying	Before giving	https://drive.go	
############	6th grade	0	Full	Real Math	Real Math is a	https://www.yo	
############	8th grade	0	Thin Slice	Systems	Thin slicing	https://drive.go	
############	8th grade	0	Thin Slice	Desmos - Thin	This is an	https://teacher.	
############	High school -	0	Thin Slice	Quotient of	Using	https://drive.go	
############	High school -	0	Thin Slice	Powers of	Using powers	https://drive.go	
############	General	0	0	0	0	0	
############	General	0	0	0	0	0	
############	Statistics and	0	Full	Statmedic--	Statmedic has	https://www.st	
############	High School -	0	Thin Slice	Area Formula	A thin-sliced	https://docs.go	
############	High School -	0	Thinking Task	Open Middle	Open Middle	https://docs.go	
############	High school -	0	Check Your	Multiplying and	Multiplying and	https://drive.go	
############	High school -	0	Check Your	Solving	Check Your	https://drive.go	
############	Calculus	0	Thinking Task	BTC Intro to	Covers basic	https://docs.go	
############	8th grade	0	Thin Slice	Exploring the	After students	https://docs.go	
############	General	0	0	0	0	0	
############	High school -	0	Thinking Task	Sum and	This is a	https://drive.go	
############	7th grade	0	Thin Slice	Percentages	Thin Sliced	https://docs.go	
############	High School -	0	Thin Slice	Discovery of	After students	https://docs.go	
############	High school -	0	Thinking Task	Horizontal	Students will	https://drive.go	
############	High school -	0	Full	Algebra II BTC	This is the	https://drive.go	
############	General	0	0	0	0	0	
############	High School -	0	Thinking Task	Trig Quiz	Students build	https://docs.go	
############	Calculus	0	Thin Slice	Definite	A set of tasks	https://docs.go	
############	Calculus	0	Thin Slice	Introduction to	Introducing	https://docs.go	
############	Calculus	0	Thin Slice	Related Rates	A set of	https://docs.go	
############	Calculus	0	Thin Slice	Implicit	Students were	https://docs.go	
############	High school -	0	Full	Darcy House	Grade 9 - BC	https://drive.go	
############	High school -	0	Full	Daily Algebra	Tasks for each	https://tinyurl.c	
############	5th grade	0	Lesson with	Dividing	This is a slide	https://docs.go	
############	6th grade	0	A discovery	Lesson on	This is a slide	https://docs.go	
############	High school -	0	A discovery	Solving	A slide deck	https://docs.go	
############	General	0	0	0	0	0	
############	General	0	0	0	0	0	
############	6th grade	0	Thin Slice	Adding &	Lesson plan	https://docs.go	
############	6th grade	0	Thin Slice	Multiplying	Lesson is	https://docs.go	

############	6th grade		0	Thin Slice	Division	Division	https://docs.go
############	High School -		0	Thin Slice	Segment	A thin slice	https://docs.go
############	General		0	0	0	0	0
############	General		0	0	0	0	0
############	General		0	0	0	0	0
############	3rd grade		0	Multiplication	Number	Students work	https://www.yo
############	General		0	0	0	0	0
############	8th grade		0	Thin Slice	Solving 1 & 2	Thin sliced	https://docs.go
############	3rd grade		0	Thinking Task	Story Board	Grade 3,	https://www.ny
############	3rd grade		0	Thinking Task	Two-step story	Module 1,	https://nysed.s
############	5th grade		0	Thin Slice	LCM	30 minute	https://docs.go
############	5th grade		0	Thin Slice	Fractions &	30 minute	https://docs.go
############	5th grade		0	Thin Slice	Comparing	20 minute	https://docs.go
############	Statistics and		0	Full Unit	Unit 1 Group	Here are the	https://drive.go
############	Statistics and		0	Full Unit	Unit 2 Group	Here are all of	https://drive.go
############	High school -		0	Thinking Task	Polynomial	Polynomial	https://drive.go
############	6th grade		0	Thin Slice	Equivalent	In this lesson,	https://docs.go
############	4th grade	Extend underst		0	Extend	0	0
############	4th grade	Draw and identi		0	Draw and	0	0
############	4th grade	Build fractions f		0	SPLAT	https://stevewy	Students are
############	4th grade	Build fractions f		0	Build fractions	0	0
############	4th grade	Full Year Reso		0	SeeSaw	Intro to	https://teacher.
############	4th grade	Full Year Reso		0	Krispy Kreme	2 by 2 digit	https://gfletchy
############	4th grade	Full Year Reso		0	Slim Cans	3 Act Task-	\
############	4th grade	Full Year Reso		0	Shopping	Spending	https://docs.go
############	4th grade	Full Year Reso		0	Use the four	Full year of	0
############	4th grade	Full Year Reso		0	NRICH	https://nrich.m	0
############	4th grade	Full Year Reso		0	OPEN	0	https://docs.go
############	4th grade	Full Year Reso		0	Curriculum	Full year of	https://docs.go
############	4th grade	Full Year Reso		0	Teaching	Full 3rd Grade	https://090202
############	4th grade	Full Year Reso		0	Full	0	0
############	3rd grade	Use place-valu		0	Counting	Estimation and	0
############	3rd grade	Use place-valu		0	Use place-	0	0
############	3rd grade	Understand pro		0	Understand	0	0
############	3rd grade	Solve problems		0	SPLAT	https://stevewy	Students are
############	3rd grade	Solve problems		0	Solve	0	0
############	3rd grade	Solve problems		0	Solve	0	0
############	3rd grade	Represent and		0	How many	Beginning	What is a
############	3rd grade	Represent and		0	Represent and	0	0
############	3rd grade	Represent and		0	Represent and	0	0
############	3rd grade	Reason with sh		0	Guess my	Students are	https://mathath
############	3rd grade	Reason with sh		0	Reason with	0	0
############	3rd grade	Multiply and div		0	Stone Soup	Students have	https://www.in
############	3rd grade	Multiply and div		0	Multiply and	0	0
############	3rd grade	Geometric mea		0	How many	Develop area	https://www.yo
############	3rd grade	Geometric mea		0	Geometric	0	0
############	3rd grade	Develop unders		0	The Unusual	Students	https://docs.go
############	3rd grade	Develop unders		0	Develop	0	0
############	3rd grade	Full Year Reso		0	Beverely	Numeracy	https://berkele
############	3rd grade	Full Year Reso		0	3 Act Tasks	Engaging	https://gfletchy
############	3rd grade	Full Year Reso		0	Good	This book is	https://www.a
############	3rd grade	Full Year Reso		0	Marian Small	Open tasks	https://drive.go
############	3rd grade	Full Year Reso		0	Marian Small	Open tasks	http://www.one
############	3rd grade	Full Year Reso		0	Math Images	Math images =	http://ntimages
############	3rd grade	Full Year Reso		0	Math Before	These tasks	Math Prompts
############	3rd grade	Full Year Reso		0	Curriculum	Full year of	https://docs.go
############	3rd grade	Full Year Reso		0	Teaching	Full 3rd Grade	https://090202
############	3rd grade	Full Year Reso		0	Full	0	0
############	2nd grade	Work with time		0	0	0	0

###########	2nd grade	Work with equa	0	0	0	0	0
###########	2nd grade	Work with equa	0	0	0	0	0
###########	2nd grade	Use place-valu	0	0	0	0	0
###########	2nd grade	Represent and	0	0	0	0	0
###########	2nd grade	Relate addition	0	0	0	0	0
###########	2nd grade	Reason with sh	0	0	0	0	0
###########	2nd grade	Measure and e	0	0	0	0	0
###########	2nd grade	Add and subtra	0	SPLAT	https://stevewy	Students are	
###########	2nd grade	Add and subtra	0	Add and		0	0
###########	2nd grade	Full Year Reso	0	3 Act Tasks	Engaging	https://gfletchy	
###########	2nd grade	Full Year Reso	0	Good	This book is	https://www.a	
###########	2nd grade	Full Year Reso	0	Marian Small	Open tasks	https://drive.go	
###########	2nd grade	Full Year Reso	0	Marian Small	Open tasks	http://www.one	
###########	2nd grade	Full Year Reso	0	Math Images	Math images =	http://ntimages	
###########	2nd grade	Full Year Reso	0	Math Before	These tasks	https://mathbef	
###########	2nd grade	Full Year Reso	0	Teaching	Full 2nd Grade	https://090202	
###########	2nd grade	Full Year Reso	0	Full		0	0
###########	1st grade	Work with addit	0	How Can They	Students use	https://www.do	
###########	1st grade	Use place-valu	0	The Very	How many	https://tasks.ill	
###########	1st grade	Understand pla	0	Same But	3 tens and 1	www.samebut	
###########	1st grade	Understand an	0	Number Tasks	https://docs.go		0
###########	1st grade	Understand an	0	SPLAT	https://stevewy	Students are	
###########	1st grade	Tell and write ti	0	0	0	0	0
###########	1st grade	Represent and	0	20 Tickets	Find ways to	https://tasks.ill	
###########	1st grade	Represent and	0	Toy Cars	Students can	https://www.do	
###########	1st grade	Represent and	0	Comparing	Students need	https://www.do	
###########	1st grade	Represent and	0	Interpreting	Make a graph	https://www.op	
###########	1st grade	Reason with sh	0	Shadow	The picture		
###########	1st grade	Reason with sh	0	Draw & Name	Draw and	https://www.op	
###########	1st grade	Money	0	Variety of coin	this is a variety	https://docs.go	
###########	1st grade	Money	0	Do you have	3 Act Task -	http://robertka	
###########	1st grade	Measure length	0	Non Standard	Which box is	https://mscastil	
###########	1st grade	Extend the cou	0	Open Number	Use the digits	https://www.op	
###########	1st grade	Extend the cou	0	Find the	Find the next	page 155 in	
###########	1st grade	Add and subtra	0	Make Ten	How many	https://docs.go	
###########	1st grade	Add and subtra	0	Nature Walk	Students go	https://www.do	
###########	1st grade	Full Year Reso	0	Mix of NCT	Tasks based	https://www.in	
###########	1st grade	Full Year Reso	0	Tasks by	Lots of tasks	https://docs.go	
###########	1st grade	Full Year Reso	0	Tasks by	Lots of tasks	https://docs.go	
###########	1st grade	Full Year Reso	0	3 Act Tasks	Engaging	https://gfletchy	
###########	1st grade	Full Year Reso	0	Good	This book is	https://www.a	
###########	1st grade	Full Year Reso	0	Marian Small	Open tasks	https://drive.go	
###########	1st grade	Full Year Reso	0	Marian Small	Open tasks	http://www.one	
###########	1st grade	Full Year Reso	0	Math Images	Math images =	http://ntimages	
###########	1st grade	Full Year Reso	$0,00	Math Before	These tasks	Math Prompts	
###########	1st grade	Full Year Reso	0	Teaching	Full 2nd Grade	https://090202	
###########	Kindergarten	Work with numl	0	0	0	0	0
###########	Kindergarten	Understand ad	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Understand ad	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Understand ad	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Identify and des	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Identify and des	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Describe and c	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Count to tell the	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Count to tell the	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Count to tell the	0	SPLAT	https://stevewy	Students are	
###########	Kindergarten	Compare numb	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Classify objects	0	E3 (Enrich,	3 different	https://docs.go	
###########	Kindergarten	Classify objects	0	E3 (Enrich,	3 different	https://docs.go	

############	Kindergarten	Analyze, compa		0	E3 (Enrich,	3 different	https://docs.go
############	Kindergarten	Full Year Reso		0	Tasks Library	One stop shop	sembl.app
############	Kindergarten	Full Year Reso		0	3 Act Tasks	Engaging	https://gfletchy
############	Kindergarten	Full Year Reso		0	Good	This book is	https://www.a
############	Kindergarten	Full Year Reso		0	Marian Small	Open tasks	https://drive.go
############	Kindergarten	Full Year Reso		0	Marian Small	Open tasks	http://www.one
############	Kindergarten	Full Year Reso		0	Math Images	Math images =	http://ntimages
############	Kindergarten	Full Year Reso		0	Math Before	These tasks	https://mathbef
############	Stats and Prob	Data Analysis a		0	"Insta-	Task for	"Insta-
############	Stats and Prob	Data Analysis a		0	Measures of	Mean, median,	Link to Google
############	Stats and Prob	Data Analysis a		0	Scatterplot	For Randomly	0
############	Stats and Prob	Data Analysis a		0	Scatterplot	This	https://drive.go
############	Stats and Prob	Data Analysis a		0	Slow Reveal	Can be used	Resources for
############	Stats and Prob	Data Analysis a		0	Statistics Unit--	Navigational	Statistics Unit--
############	HS - Alg	Number & Ope	Thin Slice		Positive,	Smudged	Task
############	HS - Alg	Number & Ope		0	Postive/Negati	Note making	https://docs.go
############	HS - Alg	Number & Ope		0	Postive/Negati	CYU -	https://docs.go
############	HS - Alg	Number & Ope		0	Postive/Negati	Thin	https://drive.go
############	HS - Alg	Number & Ope		0	Postive/Negati	CYU	https://docs.go
############	HS - Alg	Number & Ope		0	Power	CYU - Power	https://docs.go
############	HS - Alg	Number & Ope	Thin Slice		Power to a	Smudged	Task
############	HS - Alg	Number & Ope		0	Powers and	Gr 9 (NS,	https://docs.go
############	HS - Alg	Number & Ope		0	Powers of Ten	Thin-slicing -	https://drive.go
############	HS - Alg	Number & Ope		0	Powers of Ten	CYU - Powers	https://docs.go
############	HS - Alg	Number & Ope		0	Exponent	Each property	https://drive.go
############	HS - Alg	Number & Ope		0	Exponent	Discovering	https://drive.go
############	HS - Alg	Number & Ope		0	Exponent	These sets of	Exponent
############	HS - Alg	Number & Ope		0	Multiplication	Thin	https://docs.go
############	HS - Alg	Number & Ope		0	Multiplication	Smudged	Task
############	HS - Alg	Number & Ope		0	Multiplication/	Note making	https://docs.go
############	HS - Alg	Number & Ope		0	Multiplication/	CYU - Mult/Div	https://docs.go
############	HS - Alg	Linear Function		0	Graphing in	This thin	https://docs.go
############	HS - Alg	Linear Function	Thin Slice		Graphing in	Thin slicing.	Task
############	HS - Alg	Linear Function	Notes		Graphing in	Thin slicing.	https://drive.go
############	HS - Alg	Linear Function	Thin Slice		Graphing	Thin sliced	Graphing
############	HS - Alg	Linear Function		0	Graphing	An activity that	0
############	HS - Alg	Linear Function	Notes		https://teacher.	Notes To My	https://drive.go
############	HS - Alg	Linear Function		0	Identifying &	Task with	Identifying &
############	HS - Alg	Linear Function		0	Identifying	Start class	https://matheq
############	HS - Alg	Linear Function		0	Ind/Dep	Using summer	https://docs.go
############	HS - Alg	Linear Function		0	Independent	Distinguish	https://docs.go
############	HS - Alg	Linear Function		0	Interpreting	Task with	Interpreting
############	HS - Alg	Functions- Intro		0	Intro to	Slides to	https://docs.go
############	HS - Alg	Sequences and		0	Introduction to	Thin slicing.	https://docs.go
############	HS - Alg	Linear Function		0	Linear	A task to find	https://docs.go
############	HS - Alg	Linear Function		0	Linear	A Google	https://drive.go
############	HS - Alg	Linear Function		0	Linear	Navigational	Linear
############	HS - Alg	Linear Function		0	Linear/Non-	Using summer	https://docs.go
############	HS - Alg	Functions- Intro		0	Function	Introduces	https://docs.go
############	HS - Alg	Functions- Intro		0	Function vs	Label as	https://docs.go
############	HS - Alg	Functions- Intro		0	Functions -	Using summer	https://docs.go
############	HS - Alg	Functions, Line		0	Writing	Ss have	https://docs.go
############	HS - Alg	Functions, Line		0	Writing Linear	Task with	Writing Linear
############	HS - Alg	Functions, Line	Thin Slice		Writing Slope	Thin slicing.	Task
############	HS - Alg	Functions, Line		0	Writing	Task/ Problem	https://drive.go
############	HS - Alg	Functions- Intro		0	Zeros of a	Thin Slices	https://docs.go
############	HS - Alg	Functions- Intro		0	Identifyng Key	This activity	Red Carpet
############	HS - Alg	Number & Ope		0	Open Middle	Using these	Creating Zero
############	HS - Alg	Number & Ope		0	Radical	Thin slicing	https://docs.go

############	HS - Alg	Number & Ope		0	Identifying and	This is a	https://docs.go
############	HS - Alg	Number & Ope		0	Imaginary	This is a thin	https://docs.go
############	HS - Alg	Number & Ope		0	Integer	Thin slicing	
############	HS - Alg	Number & Ope		0	Integer and	Thin sliced	https://docs.go
############	HS - Alg	Number & Ope		0	Rational and	This lesson	https://docs.go
############	HS - Alg	Polynomials- F	Thin Slice		Adding and	Thin slicing	https://docs.go
############	HS - Alg	Polynomials- F	Thin Slice		Adding and	thin-slicing (for	https://docs.go
############	HS - Alg	Polynomials- F	Notes		Adding and	Thin slicing	https://docs.go
############	HS - Alg	Polynomials- F		0	Classifying	Students cut	Copy of 4-6
############	HS - Alg	Polynomials- F		0	Classifying	Thinking task	https://drive.go
############	HS - Alg	Quadratics- Fu		0	Completing	Deriving the	https://docs.go
############	HS - Alg	Quadratics- Fu		0	Completing	Thin slicing	https://docs.go
############	HS - Alg	Quadratics- Fu		0	Converting	Thin slicing	https://docs.go
############	HS - Alg	Functions- Intro		0	Domain &	Thin sliced	https://drive.go
############	HS - Alg	Exponential Fu		0	Exponential	Navigational	Exponential
############	HS - Alg	Exponential Fu		0	Exponential	Guess my	https://tapintot
############	HS - Alg	Quadratics- Fu		0	Factor Special	Thin slicing	0
############	HS - Alg	Quadratics- Fu		0	Factor when a	Thin	https://drive.e.
############	HS - Alg	Quadratics- Fu		0	Factoring	Thin	https://docs.go
############	HS - Alg	Quadratics- Fu		0	Factoring	Thin	https://docs.go
############	HS - Alg	Quadratics- Fu	Thin Slice		Factoring	Thin slicing	task
############	HS - Alg	Quadratics- Fu		0	Factoring by	Thin Slicing.	https://docs.go
############	HS - Alg	Quadratics- Fu		0	Factoring	Thin	https://docs.go
############	HS - Alg	Quadratics- Fu	Thin Slice		Factoring GCF	Thin slicing	task
############	HS - Alg	Quadratics- Fu		0	Factoring	A set of	https://docs.go
############	HS - Alg	Quadratics- Fu	Thin Slice		Factoring	Thin	Task
############	HS - Alg	Quadratics- Fu		0	Factoring	Thin Slicing	https://ggle.io/
############	HS - Alg	Quadratics- Fu		0	Factoring	Thin	https://docs.go
############	HS - Alg	Quadratics- Fu		0	Factoring	Thin slicing	https://drive.go
############	HS - Alg	Quadratics- Fu		0	Factoring	Thin Slicing	https://docs.go
############	HS - Alg	Quadratics- Fu	Thin Slice		Factoring	Thin slicing	Task
############	HS - Alg	Quadratics- Fu	Thin Slice		graphing	Thin	Task
############	HS - Alg	Quadratics- Fu		0	Intro to	Desmos	https://teacher.
############	HS - Alg	Polynomials- F	Thinking Task		Introduction to	Students	Task
############	HS - Alg	Solving Equatio		0	Introduction to	Thin slicing	BTC -
############	HS - Alg	Exponential Fu		0	Lucky Penny -	Comparison of	https://docs.go
############	HS - Alg	Polynomials- F		0	Multiplying	thin-slicing	https://docs.go
############	HS - Alg	Polynomials- F		0	Multiplying	Smudged	https://drive.go
############	HS - Alg	Polynomials- F	Thin Slice		Multiplying	Thin slicing.	Task
############	HS - Alg	Polynomials- F	Notes		Multiplying	Thin slicing.	https://docs.go
############	HS - Alg	Polynomials- F		0	Multiplying	Thin slicing	https://docs.go
############	HS - Alg	Polynomials- F	Thinking Task		Naming	Students are	Task
############	HS - Alg	Exponential Fu		0	Newspaper	Activity to get	https://docs.go
############	HS - Alg	Polynomials- F		0	Polynomial	0	Copy of 4-6
############	HS - Alg	Polynomials- F		0	Polynomials	Gr 9 (NS,	https://docs.go
############	HS - Alg	Polynomials- F		0	Polynomials:	Leveled	https://docs.go
############	HS - Alg	Polynomials- F		0	Polynomials	Navigational	Polynomails
############	HS - Alg	Quadratics- Fu		0	Cycling	Knowledge of	Nrich Cycling
############	HS - Alg	Quadratics- Fu		0	Quadratics	Navigational	Quadratics
############	HS - Alg	Number & Ope	Thin Slice		Simplifying	Thin slicing	Task
############	HS - Alg	Quadratics- Fu		0	Solve by	Thin	https://docs.go
############	HS - Alg	Quadratics- Fu		0	Solve by	0	Google Doc
############	HS - Alg	Quadratics- Fu		0	Solve	Thin Slices.	QF Thin Slices
############	HS - Alg	Quadratics- Fu	Thin Slice		Solving	Thin slicing	Task
############	HS - Alg	Quadratics- Fu	Notes		Solving	Thin slicing	https://docs.go
############	HS - Alg	Quadratics- Fu		0	Solving	Thin slicing	https://docs.go
############	HS - Alg	Quadratics- Fu		0	Solving	Four days of	https://drive.go
############	HS - Alg	Quadratics- Fu		0	Solving	Lesson builds	Solving
############	HS - Alg	Quadratics- Fu		0	Solving	Task for	Solving

############	HS - Alg	Quadratics- Fu	Thin Slice		Standard	Thin	Task
############	HS - Alg	Exponential Fu		0	Task: Trouble	Writing and	https://docs.go
############	HS - Alg	Quadratics- Fu		0	The Quadratic	Derive the	https://docs.go
############	HS - Alg	Quadratics- Fu		0	The Quadratic	Thin sliced	https://docs.go
############	HS - Alg	Quadratics- Fu	Thin Slice		Vertex Form of	Thin	Task
############	HS - Alg	Quadratics- Fu		0	Vertex Form	CYU to match	ACTIVITY:
############	HS - Alg	Quadratics- Fu	Thin Slice		Vertical Motion	Thin slicing	Task
############	HS - Alg	Sequences anc		0	Arithmetic	Thin slicing	https://docs.go
############	HS - Alg	Sequences anc		0	Arithmetic	Thin slicing	https://docs.go
############	HS - Alg	Sequences anc		0	Introduction to	Thin slicing.	https://docs.go
############	HS - Alg	Sequences anc		0	Arithmetic	Thin slicing	https://docs.go
############	HS - Alg	Sequences anc		0	Arithmetic	Thin slicing	https://docs.go
############	HS - Alg	Sequences anc		0	Arithmetic	Thin slicing	https://docs.go
############	HS - Alg	Sequences anc		0	Arithmetic	Thin slicing	https://docs.go
############	HS - Alg	Solving Equatic		0	One and two	Works through	
############	HS - Alg	Solving Equatic		0	One and two	Guess my	https://docs.go
############	HS - Alg	Solving Equatic		0	Open Middle	Using these	0
############	HS - Alg	Solving Equatic		0	Order of	Note making	https://docs.go
############	HS - Alg	Solving Equatic		0	Pentaminos to	Use	https://docs.go
############	HS - Alg	Solving Equatic		0	Solving	Thin-slicing.	https://docs.go
############	HS - Alg	Solving Equatic		0	Solving	Thin Slicing	https://docs.go
############	HS - Alg	Solving Equatic		0	Solving	Meaningful	https://docs.go
############	HS - Alg	Solving Equatic		0	Solving	A number	https://drive.go
############	HS - Alg	Solving Equatic		0	Solving	Thin Slicing	https://drive.go
############	HS - Alg	Solving Equatic		0	Solving	Thin Slicing	https://drive.go
############	HS - Alg	Solving Equatic	Thin Slice		Two step and	Thin slicing.	1-5 Simple
############	HS - Alg	Solving Equatic		0	Two-Step and	Thin slicing.	https://drive.go
############	HS - Alg	Solving Equatic	Thin Slice		Two-Step	Thin slicing	Don's Task
############	HS - Alg	Solving Equatic	Full Lesson		Two-Step	Thin Slicing	Day 1 page 1
############	HS - Alg	Solving Equatic		0	Two-Step	Thin slicing	Alg 1 L2.2-
############	HS - Alg	Solving Equatic		0	Two-Step	Thin Slicing	Day 1 Day 1
############	HS - Alg	Solving Equatic		0	Variables on	Start with	https://docs.go
############	HS - Alg	Solving Equatic		0	Writing	Real-world	https://drive.go
############	HS - Alg	Solving Equatic		0	Equations	A review of	https://docs.go
############	HS - Alg	Solving Equatic		0	Equations with	Mult-step	https://docs.go
############	HS - Alg	Solving Equatic		0	Intepret &	Warm-Up	https://docs.go
############	HS - Alg	Solving Equatic		0	Linear	Gr 9 (NS,	https://docs.go
############	HS - Alg	Solving Equatic		0	Multi-Step	Thin slicing	Don's version.
############	HS - Alg	Solving Equatic		0	Multi-Step	Splat	Equations
############	HS - Alg	Solving Equatic		0	Multi-Step	CYU self-	.
############	HS - Alg	Solving Equatic		0	Multi-Step	Thin slicing	https://drive.go
############	HS - Alg	Solving Equatic		0	Multi-Step	https://drive.go	https://docs.go
############	HS - Alg	Solving Equatic		0	NTMFFS -	Notes To My	https://drive.go
############	HS - Alg	SYSTEMS of E		0	Solve Systems	Thin slicing	https://docs.go
############	HS - Alg	SYSTEMS of E		0	Systems RW	Task	https://drive.go
############	HS - Alg	SYSTEMS of E		0	NTMFFS -	Notes To My	https://drive.go
############	HS - Alg	SYSTEMS of E		0	Solve Systems	Thin Sliced	https://docs.go
############	HS - Alg	SYSTEMS of E		0	https://docs.go	Thin slicing	https://docs.go
############	HS - Alg	SYSTEMS of E		0	Solving	Task- students	http://slamdun
############	HS - Alg	SYSTEMS of E		0	Systems Intro	Students	https://docs.go
############	HS - Alg	SYSTEMS of E		0	Solving	Thin Slicing,	https://docs.go
############	HS - Alg	SYSTEMS of E		0	Solving	Thin Slicing	https://docs.go
############	HS - Alg	SYSTEMS of E		0	Solving	Differentiated	0
############	HS - Alg	SYSTEMS of E		0	Solve Systems	Thinly sliced	https://docs.go
############	HS - Alg	SYSTEMS of E		0	Solve Systems	Task-for	Solving
############	HS - Alg	SYSTEMS of E		0	Ostrich, Llama	Low floor high	https://www.he
############	HS - Alg	SYSTEMS of E		0	Reasoning	Determine if a	Cash Box
############	HS - Alg	SYSTEMS of E		0	Solving	Performance	Maximizing
############	HS - Alg	SYSTEMS of E		0	introducing	Coin counting	https://www.10

############	HS - Alg	SYSTEMS of E		0	Solving	Thin slicing,	4-1 Solving
############	HS - Alg	SYSTEMS of E		0	Solving	Thin slicing	Task. Notes
############	HS - Alg	SYSTEMS of E		0	Solving	Thin slicing	Task. Notes
############	HS - Alg	SYSTEMS of E		0	Graphing	Thin slicing,	Task Notes
############	HS - Alg	SYSTEMS of E		0	Solving	Thin slicing,	Task. Notes
############	HS - Alg	SYSTEMS of E		0	Systems of	Navigational	Systems of
############	HS - Alg	SYSTEMS of E		0	Solving	Thin Sliced	Solving
############	HS - Alg	SYSTEMS of E		0	Solving	Thin Sliced	Solving
############	HS - Alg	SYSTEMS of E		0	Tasks for	First task is	https://docs.go
############	HS - Alg	SYSTEMS of E		0	Snatch It	Good activity	https://drive.go
############	HS - Alg	Solving Equatio		0	:Literal	Thin Sliced,	https://docs.go
############	HS - Alg	Number & Ope		0	Add and	Intro, Thin	https://drive.go
############	HS - Alg	Number & Ope		0	Add, Subtract,	Intro, Thin	https://drive.go
############	HS - Alg	Solving Equatio		0	Combine Like	Order Up! 3	https://docs.go
############	HS - Alg	Solving Equatio		0	Combine Like	A review of	https://docs.go
############	HS - Alg	Solving Equatio		0	Compound	Board Work,	https://docs.go
############	HS - Alg	Solving Equatio		0	Compound	Board Work,	https://docs.go
############	HS - Alg	Solving Equatio		0	Consecutive	0	https://docs.go
############	HS - Alg	Solving Equatio		0	Distributive	teacher	https://docs.go
############	HS - Alg	Solving Equatio	Multistep		Multistep	Multistep	https://docs.go
############	HS - Alg	Number & Ope		0	Multiply and	Intro, Thin	https://drive.go
############	HS - Alg	Solving Equatio		0	Interval	CYUs/Practice	Practice
############	HS - Alg	Solving Equatio		0	https://docs.go	Literal	https://docs.go
############	HS - Alg	Solving Equatio		0	Literal	Self-Checking	https://docs.go
############	HS - Alg	Solving Equatio		0	Literal	thin slices,	Full Lesson
############	HS - Alg	0	Notes		NTMFFS -	Notes To My	https://drive.go
############	HS - Alg	0	Notes		NTMFFS -	Notes To My	https://drive.go
############	HS - Alg	0	Notes		NTMFFS -	Notes To My	https://drive.go
############	HS - Alg	0	Notes		NTMFFS -	Notes To My	https://drive.go
############	HS - Alg	0	Notes		NTMFFS -	Notes To My	https://drive.go
############	HS - Alg	0	Notes		NTMFFS -	Notes To My	https://drive.go
############	HS - Alg	Functions, Line		0	Parallel &	Thin slicing	https://docs.go
############	HS - Alg	Functions, Line		0	Parallel and	Thin slicing.	Task. Notes
############	HS - Alg	Functions, Line		0	Point Slope	Thin slicing.	https://docs.go
############	HS - Alg	Functions, Line		0	Point slope,	Exploration	8i. ?
############	HS - Alg	Functions, Line		0	Rates of	A string of	Rates of
############	HS - Alg	Functions, Line		0	Rates of	Short thin	Rates of
############	HS - Alg	Functions, Line		0	Representatio	A self	https://teacher.
############	HS - Alg	Number & Ope		0	Simplify	Intro, Thin	https://drive.go
############	HS - Alg	Solving Equatio		0	Simplifying	CYU	https://docs.go
############	HS - Alg	Number & Ope		0	Simplifying	Intro, Thin	https://drive.go
############	HS - Alg	Functions, Line		0	Standard	Thin slicing.	Task. Notes
############	HS - Alg	Functions, Line		0	Standard to	0	0
############		0	Full Year Reso	Whole	Teaching	Full 8th Grade	https://090202
############	HS - Alg	Solving Equatio		0	Translating	Board Work,	https://docs.go
############	HS - Alg	Solving Equatio		0	Translating	Eight algebraic	https://drive.go
############	HS - Geo	Tools of Geome		0	Points, Lines,	Few activities	https://drive.go
############	HS - Geo	Tools of Geome		0	Angle	There was a	Angles
############	HS - Geo	Tools of Geome		0	Points, Lines,	Before	https://docs.go
############	HS - Geo	Tools of Geome		0	Constructions	Good	https://im.kend
############	HS - Geo	Tools of Geome		0	Introducing	Having kids	https://drive.go
############	HS - Geo	Tools of Geome		0	Segment	Practice	https://wfps-
############	HS - Geo	Tools of Geome		0	Distance	Determine the	https://wfps-
############	HS - Geo	Tools of Geome		0	Segment/Angl	After	https://docs.go
############	HS - Geo	Tools of Geome		0	Partioning of a	This slicing	https://docs.go
############	HS - Geo	Tools of Geome		0	Points, lines,	Full unit on	0
############	HS - Geo	Tools of Geome		0	Points, Lines,	A partner	https://docs.go
############	HS - Geo	Tools of Geome		0	Tasks for	Thin sliced	https://drive.go
############	HS - Geo	Tools of Geome		0	Midpoint,Dista	Thin sliced	0

###########	HS - Geo	Tools of Geome	0	Tasks for	Thin sliced	https://drive.go
###########	HS - Geo	Tools of Geome	0	Intro Unit:	Slides starting	0
###########	HS - Geo	Logic and Reas	0	Algebraic	Great	https://newells
###########	HS - Geo	Logic and Reas	0	Inductive	Extending	https://docs.go
###########	HS - Geo	Logic and Reas	0	Biconditionals -	0	https://docs.go
###########	HS - Geo	Logic and Reas	0	Intro to Geom	This is after	https://docs.go
###########	HS - Geo	Logic and Reas	0	Conditional	Ss build	https://samjsh
###########	HS - Geo	Logic and Reas	0	Intro to	This follows	https://docs.go
###########	HS - Geo	Parallel and Pe	0	Equations of	Desmos	https://teacher.
###########	HS - Geo	Parallel and Pe	0	Parallel and	post it note	Parallel Lines
###########	HS - Geo	Parallel and Pe	0	Parallel Lines	Using VPNS to	Parallel Proofs
###########	HS - Geo	Parallel and Pe	0	Parallel Lines	Thin sliced	https://drive.go
###########	HS - Geo	Parallel and Pe	0	Parallel Lines	thin slice	Full Lesson
###########	HS - Geo	Congruent Triai	0	Are triangle	Illustratitive	
###########	HS - Geo	Congruent Triai	0	Equidistance	Thinking task	Thinking Task
###########	HS - Geo	Congruent Triai	0	Congruent	Thin sliced	https://www.m
###########	HS - Geo	Relationships w	0	Interior/Exterio	https://docs.go	https://docs.go
###########	HS - Geo	Relationships w	0	0	0	0
###########	HS - Geo	Relationships w	0	Points of	art-based	https://docs.go
###########	HS - Geo	Relationships w	0	Triangle	Thin sliced	https://drive.go
###########	HS - Geo	Polygons and C	0	Interior/Exterio	This topic was	https://docs.go
###########	HS - Geo	Polygons and C	0	Full lesson -	Thin slice	Full Lesson
###########	HS - Geo	Coordinate Geo	0	Rotations on	Uses the	https://docs.go
###########	HS - Geo	Coordinate Geo	0	All things	Thin sliced	Unit 9 -
###########	HS - Geo	Transformation	0	Point and Line	Students form	https://docs.go
###########	HS - Geo	Similarity	0	Cry Me a	Uses similar	https://bit.ly/35
###########	HS - Geo	Similarity	0	Shadows &	Uses shadows	https://bit.ly/3l
###########	HS - Geo	Similarity	0	Similarity	Thin sliced	https://drive.go
###########	HS - Geo	Right Triangles	0	Intro to Trig	Geogebra and	Trig Ratios
###########	HS - Geo	Right Triangles	0	Intro to Trig	Thin sliced	Trig Equations
###########	HS - Geo	Right Triangles	0	Intro to Inverse	Thin sliced	8.4 Day 3 Thin
###########	HS - Geo	Right Triangles	0	Intro to Trig	Thin sliced	Intro to Trig
###########	HS - Geo	Right Triangles	0	Intro to Trig	Thin sliced	0
###########	HS - Geo	Right Triangles	0	Applications of	Thin sliced	https://docs.go
###########	HS - Geo	Right Triangles	0	Intro to Inverse	Thin sliced	Inverse Trig
###########	HS - Geo	Right Triangles	0	Intro to trigo	Semi Thin	https://drive.go
###########	HS - Geo	Right Triangles	0	Pythagorean	Students	https://drive.go
###########	HS - Geo	Right Triangles	0	Pythagorean	After learning	https://drive.go
###########	HS - Geo	Right Triangles	0	Deriving	Thin slicing	0
###########	HS - Geo	Right Triangles	0	45-45-90 and	Thin slice	Option 1
###########	HS - Geo	Right Triangles	0	30-60-90	Thin Sliced	https://drive.go
###########	HS - Geo	Right Triangles	0	All things Trig	Thin sliced	https://drive.go
###########	HS - Geo	Right Triangles	0	45-45-90	Thin Sliced	https://docs.go
###########	HS - Geo	Right Triangles	0	Special Right	Students	https://matheq
###########	HS - Geo	Area	0	Unusual cake	Page 154 in	https://teacher.
###########	HS - Geo	Area	0	Day 1:	Discovery	https://docs.go
###########	HS - Geo	Area	0	Day 2:	Cut out activity	https://docs.go
###########	HS - Geo	Area	0	Day 3:	0	https://docs.go
###########	HS - Geo	Area	0	Day 4: circle	0	https://docs.go
###########	HS - Geo	Area	0	Day 5: sectors	Practice	https://docs.go
###########	HS - Geo	Area	0	Day 6:	I used a TPT	0
###########	HS - Geo	Volume and Su	0	Cones	Credit: I Speak	https://ispeak
###########	HS - Geo	Volume and Su	0	3D Prisms	Credit: I Speak	Volume of 3D
###########	HS - Geo	Volume and Su	0	Circuit	Requires	https://docs.go
###########	HS - Geo	Circle Measure	0	Analyzing a	Al Overwijk	http://slamdun
###########	HS - Geo	Circle Measure	0	Intro to Circles	Thin sliced	https://drive.go
###########	HS - Geo	Circle Measure	0	Angles in	This is	https://docs.go
###########	HS - Geo	Circle Measure	0	Arcs and	Discovering/pr	https://docs.go
###########	HS - Geo	Circle Measure	0	Tangents (Day	0	https://docs.go

############	HS - Geo	Circle Measure	0	Inscribed and	Combines		https://docs.go
############	HS - Geo	Circle Measure	0	Equations of		0	https://docs.go
############	HS - Geo	Circle Measure	0	Circles &	Review of		https://docs.go
############	HS - Geo	Circle Measure	0	Circles &	Thin slice to		Google Doc
############	HS - Geo	Circle Measure	0	Circumference	Free TPT		https://www.te
############	HS - Geo	Circle Measure	0	Circles	Thin sliced		https://drive.go
############	HS - Alg	Exponential an		Exponential		0	0
############	HS - Alg	Exponential an	0	Learning	Thin slicing		Solving
############	HS - Alg	Exponential an	0	Exponential	Task		
############	HS - Alg	Exponential an	0	Task: Trouble	Writing and		https://docs.go
############	HS - Alg	Exponential an	0	Key Features	Thin slicing		https://docs.go
############	HS - Alg	Exponential an	0	Compound	Thin		https://docs.go
############	HS - Alg	Exponential an	0	Introduction to	Thin slicing		https://docs.go
############	HS - Alg	Exponential an	0	Graphing	Thin slicing		6-4 Part 1
############	HS - Alg	Exponential an	0	Inverses of	Thin slicing		https://docs.go
############	HS - Alg	Exponential an	0	Properties of	Thin		https://docs.go
############	HS - Alg	Exponential an	0	Exponential	Thin slicing		https://docs.go
############	HS - Alg	Exponential an	0	Exponent	Thin slicing		Exponent
############	HS - Alg	Exponential an	0	Simplifying	thin slicing		8-1 Rescue
############	HS - Alg	Exponents		0		0	0
############	HS - Alg	Exponents	0	Exponent	Thin Slicing		https://docs.go
############	HS - Alg	Exponents	0	Exponent	CYU		https://docs.go
############	HS - Alg	Exponents	0	Discovers	Thin slicing		https://drive.go
############	HS - Alg	Exponents		Intro to	Thin Slicing		https://docs.go
############	HS - Alg	Exponents	0	Intro to	Thin Slicing		https://docs.go
############	HS - Alg	Exponents	0	nth Roots,	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	Simplifying	Thin Slicing		https://docs.go
############	HS - Alg	Exponents	0	Properties of	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	Adding and	Thin Slicing		https://docs.go
############	HS - Alg	Exponents	0	Adding,	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	Adding,	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	Intro to	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	Graphs of	Thin Slicing		https://docs.go
############	HS - Alg	Exponents	0	Graphing	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	Solving	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	g	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	Inverse	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	Inverse	Thin slicing		https://docs.go
############	HS - Alg	Exponents	0	Simplifying	thin slicing		8-1 Rescue
############	HS - Alg	Key Features o	0	Key Features		0	0
############	HS - Alg	Key Features o	0	domain &	Students are		https://docs.go
############	HS - Alg	Key Features o	0	Thin		0	1-1 Key
############	HS - Alg	Key Features o	0	Slope and	Thin-slicing		https://drive.go
############	HS - Alg	Key Features o	0	Linear	thin slicing		https://docs.go
############	HS - Alg	Key Features o	0	Increasing,	Thin slicing		https://docs.go
############	HS - Alg	Key Features o	0	Domain,	Thin slicing		3-2 Basic Key
############	HS - Alg	Key Features o	0	Domain,	CYU self-		3-3 Basic Key
############	HS - Alg	Key Features o	0	Domain,	Think slicing		4-2 Common
############	HS - Alg	Key Features o	0	Domain,	CYU self-		4-3 Common
############	HS - Alg	Key Features o	0	Key Features	Thin slicing		5-1 Forms of
############	HS - Alg	Key Features o	0	Key Features	CYU self-		5-3 Forms of
############	HS - Alg	Key Features o	0	Key Features	Thin slicing		6-1 Movie
############	HS - Alg	Key Features o	0	Key Features	Thin slicing		6-2 The New
############	HS - Alg	Key Features o	0	Key Features	CYU self-		Puzzle 1 Alg1
############	HS - Alg	Key Features o	0	Key Features	CYU self-		Puzzle 3 Alg2
############	HS - Alg	Key Features o	0	Key Features	CYU self-		0
############	HS - Alg	Key Features o	0	Key Features	CYU self-		Puzzle 4 Alg2
############	HS - Alg	Linear Function	0	Linear		0	0
############	HS - Alg	Linear Function	0	Solving	Thin slicing		https://docs.go

############	HS - Alg	Linear Function	0	Solving	Thin slicing	https://drive.go
############	HS - Alg	Linear Function	0	Solving	Thin slicing	https://drive.go
############	HS - Alg	Linear Function	0	Solving	Thin-slicing	https://drive.go
############	HS - Alg	Linear Function	0	Water jug task	Desmos	2-2 Measuring
############	HS - Alg	Polynomial Fun		Polynomial	0	0
############	HS - Alg	Polynomial Fun	0	Introduction to	Thin slicing	https://docs.go
############	HS - Alg	Polynomial Fun	0	Adding/Subtra	Thin slicing	https://docs.go
############	HS - Alg	Polynomial Fun	0	Polynomial	Thin slicing	https://docs.go
############	HS - Alg	Polynomial Fun	0	The Binomial	Thin slicing	https://docs.go
############	HS - Alg	Polynomial Fun	0	Polynomial	Thin slicing	https://docs.go
############	HS - Alg	Polynomial Fun	0	Synthetic	Thin	https://docs.go
############	HS - Alg	Polynomial Fun	0	Graphing	Thin slicing	https://docs.go
############	HS - Alg	Polynomial Fun	0	Rules for	Thin slicing	https://docs.go
############	HS - Alg	Polynomial Fun	0	Findng Real	Thin slicing	https://docs.go
############	HS - Alg	Polynomial Fun	0	Cubic	USPS	https://docs.go
############	HS - Alg	Polynomial Fun	0	Remainder	Thin Slicing	https://drive.go
############	HS - Alg	Polynomial Fun	0	Roots and	Thin Slicing?	https://drive.go
############	HS - Alg	Polynomial Fun	0	End Behavior	Discovery -	https://docs.go
############	HS - Alg	Polynomial Fun	0	Factoring	thin slicing	8-1 Rescue
############	HS - Alg	Polynomial Fun	0	Polynomial on	students get a	https://docs.go
############	HS - Alg	Quadratic Func		Quadratic	0	0
############	HS - Alg	Quadratic Func	0	Tranforming	Desmos	Will it hit the
############	HS - Alg	Quadratic Func	0	0	0	0
############	HS - Alg	Quadratic Func	0	Vertex Form	Thin slicing,	https://docs.go
############	HS - Alg	Quadratic Func	0	Standard	Thin slicing,	https://docs.go
############	HS - Alg	Quadratic Func	0	Review of	Thin	https://docs.go
############	HS - Alg	Quadratic Func	0	Factored	Thin slicing	https://docs.go
############	HS - Alg	Quadratic Func	0	Positive/Negati	Thin slicing	https://docs.go
############	HS - Alg	Quadratic Func	0	Introduction to	Thin slicing	https://docs.go
############	HS - Alg	Quadratic Func	0	Adding/Subtra	Thin slicing	https://docs.go
############	HS - Alg	Quadratic Func	0	Multiplying/Divi	Thin slicing	https://docs.go
############	HS - Alg	Quadratic Func	0	Completing	Thin slicing	https://docs.go
############	HS - Alg	Quadratic Func	0	The Quadratic	Thin slicing,	https://docs.go
############	HS - Alg	Quadratic Func	0	The	Thin slicing	https://docs.go
############	HS - Alg	Quadratic Func	0	Quadratic	Application -	https://docs.go
############	HS - Alg	Quadratic Func	0	Complex	Thin-slicing	https://drive.go
############	HS - Alg	Quadratic Func	0	Vertex Form	CYU to match	ACTIVITY:
############	HS - Alg	Quadratic Func	0	Factoring	thin slicing	8-1 Rescue
############	HS - Alg	Quadratic Func	0	Function	Introduces	https://docs.go
############	HS - Alg	Rational Functi		Rational	0	0
############	HS - Alg	Rational Functi	0	Get Real! Be	Thin slicing	Get Real! Be
############	HS - Alg	Rational Functi	0	Inverse	Thin slicing	https://docs.go
############	HS - Alg	Rational Functi	0	Graphing	Thin slicing	https://docs.go
############	HS - Alg	Rational Functi	0	Snatch It	Good activity	Graphs:
############	HS - Alg	Rational Functi	0	Vertical and	Thin slicing	https://docs.go
############	HS - Alg	Rational Functi	0	Simplfying and	Thin slicing	https://docs.go
############	HS - Alg	Rational Functi	0	Dividing	Thin slicing	https://docs.go
############	HS - Alg	Rational Functi	0	Adding and	Thin slicing	https://docs.go
############	HS - Alg	Rational Functi	0	Simplifying	Thin slicing	https://docs.go
############	HS - Alg	Rational Functi	0	Solving	Thin slicing	https://docs.go
############	HS - Alg	Sequences and		Sequences	0	0
############	HS - Alg	Sequences and	0	Sigma	Introduction /	Sigma
############	HS - Alg	Solving Equatio	0	Solving	0	0
############	HS - Alg	Solving Equatio	0	Solving	Thin-slicing	https://drive.go
############	HS - Alg	Solving Equatio	0	Solving	Small groups	https://docs.go
############	HS - Alg	Solving Equatio	0	Solving Linear	Thin-slicing	https://drive.go
############	HS - Alg	Solving Equatio	0	Solving	https://docs.go	https://docs.go
############	HS - Alg	Solving Equatio	0	Solving	Thin slicing,	https://docs.go
############	HS - Alg	Solving Equatio	0	Solving Linear	Thin-slicing	https://drive.go

############	HS - Alg	Solving Equatic	0	Writing Linear	Thin-slicing		https://drive.go
############	HS - Alg	Solving Equatic	0	Graphing	Thin-slicing		https://drive.go
############	Stats and Prob	Statistics (Norm		Statistics		0	0
############	Stats and Prob	Statistics (Norm	0	Introduction	Thin Slicing		Empirical Rule
############	Stats and Prob	Statistics (Norm	0	Introduction	Thin Slicing		Z-score -- Thin
############		0 Transformation	0	Transformatio		0	0
############	HS - Alg	Transformation	0	Transforming	Students		Slides
############	HS - Alg	Transformation	0	Graphing	Thin slicing,		https://docs.go
############	HS - Alg	Transformation	0	Transformatio	Thin-slicing,		https://drive.go
############	HS - Alg	Transformation	0	Transformatio	Thin-Slicing,		https://drive.go
############	HS - Alg	Transformation	0	What's My	Students get a		https://docs.go
############	HS - Alg	Transformation	0	Transformatio	Thin slicing		2-1 What's the
############	HS - Alg	Transformation	0	Linear &	Math Game -		https://scratch.
############		0 Trigonometric F		Trigonometric		0	0
############	HS - Geo	Trigonometric F	0	Unit Circle	Developing		https://docs.go
############	HS - Geo	Trigonometric F	0	Unit Circle and	Free lessons		https://mathme
############	HS - Geo	Trigonometric F	0	Basic Trig	Derive the trig		https://docs.go
############	HS - Geo	Trigonometric F	0	Using Trig to	Thin slicing		https://docs.go
############	HS - Geo	Trigonometric F	0	Special Right	Thin slicing		https://docs.go
############	HS - Geo	Trigonometric F	0	The Unit Circle	Thin slicing		https://docs.go
############	HS - Geo	Trigonometric F	0	Degrees and	Thin slicing		https://docs.go
############	HS - Geo	Trigonometric F	0	intro to the unit	Thin slicing		https://docs.go
############	HS - Geo	Trigonometric F	0	Writing trig	Thin slicing		https://drive.go
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	0	Andrew Stadel	Katie Bills	0	0	0	0
	0	Harrington	Harrington	0	0	0	0
	0	OUR	Throolin	0	Resources	0	0
	0	created	Joyce McKay	0	0	and money.	0
	0	Landreth	Landreth	0	0	0	0
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	0	Carlson	Carlson	0	0	0	0
	0	Annie Moses	Annie Moses	0	0	0	0
	0	Harrington	Harrington	0	0	0	0
	0	Andrew Stadel	Katie Bills	0	0	0	0
	0	OUR	Throolin	Resources	0	0	0
created		0	Mickie Gibbs	Equations &	0	0	0
created		0	Mickie Gibbs	Equations &	0	0	0
created		0	Sarah Forst	Equations &	0	0	0
Created		0	Crespo	Equations &	0	0	0
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teacher		0	Mickie Gibbs	Solving	0	0	0
Teacher		0	Mackenzie	Solving	0	0	0
teacher		0	Justina Erre	Solving	0	0	0
	0	0	Justina Erre	Solving	0	0	0
My blog post		0	Hannah	Solving	0	0	0
teacher		0	Erica Cross	Solving	0	0	0
This is actually		0	Dana Carie	Solving	0	0	0
teacher		0	Dana Carie	Solving	0	0	0
Teacher		0	Amanda	Solving	0	0	0
Talk through:		0	Alanna Lindahl	Solving	0	0	0
from Alex		0	Abby Bates	Solving	0	0	0
Grade 6/7		0	Abby Bates	Solving	0	0	0
Thank you		0	0	Solving	0	0	0
	0	0	0	Solving	0	0	0
Imagine that		0	Geeta Makhija	Rational/Irratio	0	0	0
teacher		0	Jason Ayers	Rational/Irratio	0	0	0
teacher		0	Dana Carie	Rational/Irratio	0	0	0
Presentation		0	Samantha	Rational/Irratio	0	0	0
teacher		0	Neleigh	Rational/Irratio	0	0	0
	0	0	0	Rational/Irratio	0	0	0
This is a work-		0	Hannah	Radical &	0	0	0
Why are		0	Deborah	Radical &	0	0	0
The first		0	0	Radical &	0	0	0
teacher		0	Jason Ayers	Radical &	0	0	0
Teacher		0	Mackenzie	Radical &	0	0	0
These sets of		0	Abby Bates	Radical &	0	0	0
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I did the	0	Jason Ayers	Pythagorean	0	0	0
5	0	Jessica	Pythagorean	0	0	0
From	0	Abby Bates	Pythagorean	0	0	0
From Al	0	Abby Bates	Pythagorean	0	0	0
Shared by	0	Abby Bates	Pythagorean	0	0	0
Thin Slice	0	Deborah	Pythagorean	0	0	0
From Jim	0	Tom Fisher	Pythagorean	0	0	0
0	0	0	Pythagorean	0	0	0
0	0	0	Functions	0	0	0
0	0	0	Functions	0	0	0
Teacher	0	Michael	Connection	0	0	0
Teacher	0	Michael	Connection	0	0	0
Credit to Fawn	0	Liz Knutson	Connection	0	0	0
From the	0	Dana Carie	Connection	0	0	0
I used this	0	Kandace	Connection	0	0	0
I created these	0	Justina Erre	Connection	0	0	0
0	0	0	Connecting	0	0	0
from the Open	0	KatieJo	Congruence	0	0	0
	0	0	Congruence	0	0	0
teacher	0	Dana Carie	Congruence	0	0	0
This is from	0	Dana Carie	Congruence	0	0	0
teacher	0	Dana Carie	Congruence	0	0	0
teacher	0	Dana Carie	Congruence	0	0	0
teacher	0	Dana Carie	Congruence	0	0	0
See also the	0	Anna Clark	Congruence	0	0	0
0	0	Angie Mezera	Congruence	0	0	0
This activity is	0	Angie Mezera	Congruence	0	0	0
from	0	0	Congruence	0	0	0
0	0	0	Congruence	0	0	0
0	0	0	Congruence	0	0	0
0	0	0	Bivariate Data	0	0	0
teacher	0	Dana Carie	Full Year	0	0	0
Shared by	0	Abby Bates	Full Year	0	0	0
0	0	Abby Bates	Full Year	0	0	0
www.aliciabur	0	Abby Bates	Full Year	0	0	0
0	0	0	Full Year	0	0	0
0	0	0	Unit Rates and	0	0	0
make a copy	0	0	Unit Rates and	0	0	0
See sample	0	0	Unit Rates and	0	0	0
0	0	Rebecca	Unit Rates and	0	0	0
Since I didn't	0	Nickel & Wolf	Unit Rates and	0	0	0
(OUR Lessons	0	Nathan Kraft	Unit Rates and	0	0	0
0	0	KatieJo	Unit Rates and	0	0	0
0	0	Heddi Craft	Unit Rates and	0	0	0
0	0	0	Unit Rates and	0	0	0
0	0	Jessica Simek	Statistics	0	0	0
0	0	Jessica Simek	Statistics	0	0	0
Illustrative	0	Hannah Edgar	Statistics	0	0	0
Illustrative	0	Hannah Edgar	Statistics	0	0	0
https://docs.go	0	Carri Chesler	Statistics	0	0	0
4 scenarios	0	Carri Chesler	Statistics	0	0	0
Mathematics	0	Emily	Statistics	0	0	0
0	0	0	Statistics	0	0	0
I used this to	0	Suzanne	Rational	0	0	0
I used this to	0	Suzanne	Rational	0	0	0
0	0	0	Rational	0	0	0
After each	0	0	Rational	0	0	0

0	0	0	Rational	0	0	0
https://docs.go	0	0	Rational	0	0	0
I use this a	0	0	Rational	0	0	0
I use this to	0	Tom Fisher	Rational	0	0	0
super	0	Michele	Rational	0	0	0
I have groups	0	Melanie	Rational	0	0	0
I have groups	0	Melanie	Rational	0	0	0
This could	0	Julie Pottinger	Rational	0	0	0
0	0	Jill Torrence	Rational	0	0	0
I included	0	Jessica Simek	Rational	0	0	0
Teacher copy	0	H.Wolf	Rational	0	0	0
Teacher copy	0	H. Wolf	Rational	0	0	0
Teacher copy	0	H. Wolf	Rational	0	0	0
Inspired by an	0	Erin Beaver	Rational	0	0	0
Found on	0	Erica Cross	Rational	0	0	0
Great for use	0	Carrie Herman	Rational	0	0	0
Teacher	0	Brandi	Rational	0	0	0
Practice	0	Ashley Lipka	Rational	0	0	0
Would intro	0	Andrea Hart	Rational	0	0	0
Intro script for	0	Andrea Hart	Rational	0	0	0
Would intro	0	Andrea Hart	Rational	0	0	0
I skipped the	0	Alicia Bena	Rational	0	0	0
I skipped the	0	Alicia Bena	Rational	0	0	0
Have students	0	Alicia Bena	Rational	0	0	0
0	0	0	Rational	0	0	0
0	0	0	Other	0	0	0
0	0	0	Other	0	0	0
0	0	Paige Conley	Other	0	0	0
Start with	0	Andrea Hart	Other	0	0	0
0	0	0	Other	0	0	0
0	0	0	Other	0	0	0
I use this for	0	Tom Fisher	Geometry	0	0	0
From Jim	0	Tom Fisher	Geometry	0	0	0
Thin slice	0	Deborah	Geometry	0	0	0
Includes the	0	Deborah	Geometry	0	0	0
0	0	Maggie	Geometry	0	0	0
Print more	0	Jessica Simek	Geometry	0	0	0
Print a copy	0	Jessica Simek	Geometry	0	0	0
Based on	0	Deborah	Geometry	0	0	0
It might be	0	Jessica Simek	Geometry	0	0	0
I used this to	0	Ashton Shetler	Geometry	0	0	0
0	0	Amy Marcum	Geometry	0	0	0
0	0	0	Geometry	0	0	0
I use this at	0	Tom Fisher	Expressions,	0	0	0
Thin slicing	0	Spring Alvarez	Expressions,	0	0	0
Students intuit	0	Katrina Misley	Expressions,	0	0	0
You can make	0	Justina Erre	Expressions,	0	0	0
See Open	0	Jill Weiss	Expressions,	0	0	0
See Open	0	Jill Weiss	Expressions,	0	0	0
I adapted this	0	Jessica	Expressions,	0	0	0
I gave them 10	0	Jessica Simek	Expressions,	0	0	0
https://docs.go	0	Jessica Simek	Expressions,	0	0	0
This works	0	Jessica Simek	Expressions,	0	0	0
0	0	Jaime Suarez	Expressions,	0	0	0
I designed this	0	Hannah	Expressions,	0	0	0
Full lesson	0	Deborah	Expressions,	0	0	0
This is the	0	Deborah	Expressions,	0	0	0
The thin slice	0	Deborah	Expressions,	0	0	0
0	0	Cheryl Fink	Expressions,	0	0	0

Extensions are		0	Anna Blinstein	Expressions,	0	0	0
	0	0	Amy Marcum	Expressions,	0	0	0
p. 49 and 50		0	Amy Marcum	Expressions,	0	0	0
	0	0	Amy Marcum	Expressions,	0	0	0
	0	0	Amy Marcum	Expressions,	0	0	0
	0	0	Amy Marcum	Expressions,	0	0	0
Proportional		0	Amy Marcum	Expressions,	0	0	0
	0	0	Amy Hoekstra	Expressions,	0	0	0
Grade 6/7		0	Abby Bates	Expressions,	0	0	0
	0	0	0	Expressions,	0	0	0
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	0	0	Abby Bates	Full Year	0	0	0
	0	0	0	Full Year	0	0	0
	0	0	Tom Fisher	Full Year	0	0	0
	0	0	0	Full Year	0	0	0
OUR	OUR		Jessica	Full Year	0	0	0
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	0	0	0	0	0	0	0
	0	Deborah	Deborah	Statistics (dot	0	0	0
	0	Allie	Allie	Statistics (dot	0	0	0
	0	Bridget Adam	Bridget Adam	Statistics (dot	0	0	0
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	0	Alicia Williams	Alicia Williams	Statistics (dot	0	0	0
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	0	0	Deborah	Ratios, Rates,	0	0	0
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	0	0	0	Rational	0	0	0
	0	0	0	Rational	0	0	0

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0	0	Nathan Kraft	Rational	0	0	0
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0	0	Ashley Lipka	Rational	0	0	0
0	0	Nathan Kraft	Rational	0	0	0
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0	0	Stephanie	Operations	0	0	0
0	0	Adina R	Operations	0	0	0
0	0	Bridget	Operations	0	0	0
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0	0	Lisa Yamagata	Operations	0	0	0
0	0	Jennifer	Operations	0	0	0
0	0	Heidi	Operations	0	0	0
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0	0	Noelle	Operations	0	0	0
0	0	Nathan Kraft	Operations	0	0	0
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0	0	Nathan Kraft	Operations	0	0	0
0	0	Nathan Kraft	Operations	0	0	0
0	0	Nathan Kraft	Operations	0	0	0
0	0	Nathan Kraft	Operations	0	0	0
0	0	0	Operations	0	0	0
0	0	L. Stevens	Greatest	0	0	0
0	0	Julianna	Greatest	0	0	0
0	0	Alicia Williams	Greatest	0	0	0
0	0	Nathan Kraft	Greatest	0	0	0
0	0	Nathan Kraft	Greatest	0	0	0
0	0	Nathan Kraft	Greatest	0	0	0
0	0	Nathan Kraft	Greatest	0	0	0
0	0	Nathan Kraft	Greatest	0	0	0
0	0	Nathan Kraft	Greatest	0	0	0
0	0	0	Greatest	0	0	0
0	Deborah	Deborah	Geometry	0	0	0
0	Deborah	Deborah	Geometry	0	0	0
0	Deborah	Deborah	Geometry	0	0	0
0	Deborah	Deborah	Geometry	0	0	0
0	0	0	Geometry	0	0	0
0	0	0	Geometry	0	0	0
0	0	0	Geometry	0	0	0
0	0	0	Geometry	0	0	0
0	Susie Halley	Susie Halley	Geometry	0	0	0
0	Susie Halley	Susie Halley	Geometry	0	0	0
0	Allison	Allison	Geometry	0	0	0
0	Alicia Williams	Alicia Williams	Geometry	0	0	0
0	Julianna	Julianna	Geometry	0	0	0

0	Monica Harrell	Monica Harrell	Geometry	0	0	0
0	Nathan Kraft	Nathan Kraft	Geometry	0	0	0
0	Nathan Kraft	Nathan Kraft	Geometry	0	0	0
0	Nathan Kraft	Nathan Kraft	Geometry	0	0	0
0	Maria Searles	Maria Searles	Geometry	0	0	0
0	Nathan Kraft	Nathan Kraft	Geometry	0	0	0
0	Nathan Kraft	Nathan Kraft	Geometry	0	0	0
0	Nathan Kraft	Nathan Kraft	Geometry	0	0	0
0	Nathan Kraft	Nathan Kraft	Geometry	0	0	0
0	Nathan Kraft	Nathan Kraft	Geometry	0	0	0
0	0	0	Geometry	0	0	0
0	Deborah	Deborah	Algebraic	0	0	0
0	Jennifer	Jennifer	Algebraic	0	0	0
0	Jennifer Carter	Jennifer Carter	Algebraic	0	0	0
0	Emily Carton	Emily Carton	Algebraic	0	0	0
0	Jennifer Carter	Jennifer Carter	Algebraic	0	0	0
0	Alicia Williams	Alicia Williams	Algebraic	0	0	0
0	Chelsea	Chelsea	Algebraic	0	0	0
0	Alicia Williams	Alicia Williams	Algebraic	0	0	0
0	Anna Blinstein	Anna Blinstein	Algebraic	0	0	0
0	Nathan Kraft	Nathan Kraft	Algebraic	0	0	0
0	0	0	Algebraic	0	0	0
0	0	Julie Pottinger	Full Year	0	0	0
0	0	@mathsjem	Full Year	0	0	0
0	0	0	Full Year	0	0	0
0	0	becca Flora	Full Year	0	0	0
0	0	I hope this is	Full Year	0	0	0
0	0	Abby Bates	Full Year	0	0	0
0	0	0	Full Year	0	0	0
0	0	0	Operations	0	0	0
0	0	0	Operations	0	0	0
0	0	Christine	Operations	0	0	0
0	0	Tracey Bean	Operations	0	0	0
0	0	0	Operations	0	0	0
0	0	0	Operations	0	0	0
0	0	Amy Alger	Numbers and	0	0	0
0	0	0	Numbers and	0	0	0
0	0	Deborah	Numbers and	0	0	0
0	0	Tracey Bean	Numbers and	0	0	0
0	0	Tracey Bean	Numbers and	0	0	0
The notes are	0	Chelsea	Numbers and	0	0	0
I have used	0	Christine	Numbers and	0	0	0
0	0	Tracey Bean	Numbers and	0	0	0
0	0	Tracey Bean	Numbers and	0	0	0
0	0	Tracey Bean	Numbers and	0	0	0
0	0	Tracey Bean	Numbers and	0	0	0
0	0	Tracey Bean	Numbers and	0	0	0
0	0	0	Numbers and	0	0	0
0	0	0	Numbers and	0	0	0
Can't access it	0	Amy Alger	Number and	0	0	0
0	0	Amy Alger	Number and	0	0	0
5.NBT.7 (part	0	Heather Rigatti	Number and	0	0	0
0	0	Susie Halley	Number and	0	0	0
0	0	Chelsea	Number and	0	0	0
0	0	0	Number and	0	0	0
5.NBT.1 and	0	Heather Rigatti	Number and	0	0	0
0	0	Susie Halley	Number and	0	0	0
0	0	0	Number and	0	0	0
0	0	0	Number and	0	0	0

	0	0		0	Number and	0	0	0
	0	0	Tracey Bean		Measurement	0	0	0
	0	0	Tracey Bean		Measurement	0	0	0
	0	0		0	Measurement	0	0	0
	0	0		0	Geometry 5.G	0	0	0
	0	0	Tracey Bean		Full Year	0	0	0
	0	0	Kari Johnson		Full Year	0	0	0
	0	0	Abby Bates		Full Year	0	0	0
	0	0		0	Full Year	0	0	0
It is hard to		0	Christine		Use place-	0	0	0
Explore all		0	Christine		Use place-	0	0	0
	0	0		0	Use place-	0	0	0
	0	0		0	Understand	0	0	0
	0	0		0	Solve	0	0	0
	0	0		0	Represent and	0	0	0
	0	0		0	Geometric	0	0	0
	0	0		0	Generate and	0	0	0
If you get the		0	Christine		Generate and	0	0	0
	0	0		0	Generate and	0	0	0
	0	0	Deborah		Extend	0	0	0
	0	0	Deborah		Extend	0	0	0
Lesson		0	Abby Bates		Extend	0	0	0
	0	Farah	Farah		0	0	0	0
Students		Martin Cornejo	Martin Cornejo		0	0	0	0
There is also a		Tjeerd Alberda	Tjeerd Alberda		0	0	0	0
	0	Robin	Robin		0	0	0	0
	0	Abby Rogich	Abby Rogich		0	0	0	0
Used with		Kelsey	Kelsey		0	0	0	0
Used with		Kelsey	Kelsey		0	0	0	0
	0	0		0	0	0	0	0
	0	0		0	0	0	0	0
	0	StatMedic	Kathleen		0	0	0	0
	0	Dana	Dana		0	0	0	0
	0	Adapted from	Dana		0	0	0	0
This is a		Jill Kitchen	Jill Kitchen		0	0	0	0
The answers		Jill Kitchen	Jill Kitchen		0	0	0	0
This was		Matt Owings	Matt Owings		0	0	0	0
Teacher		Barbara	Barbara		0	0	0	0
	0	0		0	0	0	0	0
	0	Colleen Pirone	Colleen Pirone		0	0	0	0
Attached is		Abby Rogich	Abby Rogich		0	0	0	0
	0	Dana	Dana		0	0	0	0
GeoGebra		Jillian Graham	Jillian Graham		0	0	0	0
	0	Kim Raines &	Kim Raines		0	0	0	0
	0	0		0	0	0	0	0
Appropriate for		Dana	Dana		0	0	0	0
Prior		Julia Tsygan	Julia Tsygan		0	0	0	0
This was the		Julia Tsygan	Julia Tsygan		0	0	0	0
	0	Julia Tsygan	Julia Tsygan		0	0	0	0
	0	Julia Tsygan	Julia Tsygan		0	0	0	0
	0	Darcy House	Darcy House		0	0	0	0
	0	Jessica	Jessica		0	0	0	0
	0	Jessica	Jessica		0	0	0	0
	0	Jessica	Jessica		0	0	0	0
	0	jessica	jessica		0	0	0	0
	0	0		0	0	0	0	0
	0	0		0	0	0	0	0
	0	Heather Smith	Heather Smith		0	0	0	0
	0	Heather Smith	Heather Smith		0	0	0	0

	0	Kelly Brown	?		0	0	0	0
	0	Dana	Dana		0	0	0	0
	0	0	0		0	0	0	0
	0	0	0		0	0	0	0
	0	0	0		0	0	0	0
Students also		Teri McCall	Teri McCall		0	0	0	Multiply and
	0	0	0		0	0	0	0
	0	From Abigail	Abigail Bates		0	0	0	0
Both Erin and		Eureka Math	Teri McCall		0	0	0	Represent and
	0	Eureka Math	Teri McCall		0	0	0	Represent and
	0	Amanda	Amanda		0	0	0	0
	0	Amanda	Amanda		0	0	0	0
	0	Amanda	Amanda		0	0	0	0
	0	Amanda	Amanda		0	0	0	0
I need to		Amanda	Amanda		0	0	0	0
	0	Jillian Graham	Jillian Graham		0	0	0	0
	0	Sarah Stoy	Sarah Stoy		0	0	0	0
	0	0	0	Extend		0	0	0
	0	0	0	Draw and		0	0	0
	0	0	0	Build fractions		0	0	0
	0	0	0	Build fractions		0	0	0
Desmos		0	0	Full Year		0	0	0
	0	0	0	Full Year		0	0	0
	0	0	Christine	Full Year		0	0	0
	0	0	0	Full Year		0	0	0
	0	0	0	Full Year		0	0	0
	0	0	0	Full Year		0	0	0
	0	0	Sasha Wise	Full Year		0	0	0
	0	0	Abby Bates	Full Year		0	0	0
www.aliciabur		0	0	Full Year		0	0	0
	0	0	0	Full Year		0	0	0
	0	0	0	Use place-		0	0	0
	0	0	0	Use place-		0	0	0
	0	0	0	Understand		0	0	0
	0	0	0	Solve		0	0	0
	0	0	0	Solve		0	0	0
	0	0	0	Solve		0	0	0
K-4 options		0	Tina Bergman	Represent and		0	0	0
	0	0	0	Represent and		0	0	0
	0	0	0	Represent and		0	0	0
	0	0	Morgan Brown	Reason with		0	0	0
	0	0	0	Reason with		0	0	0
	0	0	0	Multiply and		0	0	0
	0	0	0	Multiply and		0	0	0
	0	0	0	Geometric		0	0	0
	0	0	0	Geometric		0	0	0
Lesson		0	Abby Bates	Develop		0	0	0
	0	0	0	Develop		0	0	0
K - 6 options		0	Tina Bergman	Full Year		0	0	0
K-3 options		0	Tammy	Full Year		0	0	0
K-3 options		0	Tammy	Full Year		0	0	0
K-3 options		0	Tammy	Full Year		0	0	0
K-3 options		0	Tammy	Full Year		0	0	0
K-3 options		0	Tammy	Full Year		0	0	0
K-3 options		0	Tammy	Full Year		0	0	0
	0	0	Abby Bates	Full Year		0	0	0
www.aliciabur		0	Abby Bates	Full Year		0	0	0
	0	0	0	Full Year		0	0	0
	0	0	0	Work with time		0	0	0

0	0	0	Work with	0	0	0
0	0	0	Work with	0	0	0
0	0	0	Use place-	0	0	0
0	0	0	Represent and	0	0	0
0	0	0	Relate addition	0	0	0
0	0	0	Reason with	0	0	0
0	0	0	Measure and	0	0	0
0	0	0	Add and	0	0	0
0	0	0	Add and	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
www.aliciabur	0	Abby Bates	Full Year	0	0	0
0	0	0	Full Year	0	0	0
Might use	0	Kris Serven	Work with	0	0	0
Could use ten	0	Nicole Medina	Use place-	0	0	0
What is the	0	Gayane	Understand	0	0	0
Open Ended	0	Berkely	Understand	0	0	0
0	0	0	Understand	0	0	0
0	0	0	Tell and write	0	0	0
Part of IM,	0	Nicole Medina	Represent and	0	0	0
multiple	0	Kris Serven	Represent and	0	0	0
multiple	0	Kris Serven	Represent and	0	0	0
Students may	0	Nicole Medina	Represent and	0	0	0
Maybe use	0	Nicole Medina	Reason with	0	0	0
0	0	Nicole Medina	Reason with	0	0	0
0	0	Heidi	Money	0	0	0
US Coins -	0	Nicole Medina	Money	0	0	0
Quick one	0	Nicole Medina	Measure	0	0	0
0	0	Nicole Medina	Extend the	0	0	0
Thin-Sliced	0	Nicole Medina	Extend the	0	0	0
0	0	Faith Morrow -	Add and	0	0	0
multiple	0	Kris Serven	Add and	0	0	0
For first grade	0	Nicole Medina	Full Year	0	0	0
First Grade	0	Nicole Medina	Full Year	0	0	0
K-3 options	0	Nicole Medina	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
K-3 options	0	Tammy	Full Year	0	0	0
www.aliciabur	0	Abby Bates	Full Year	0	0	0
0	0	0	Work with	0	0	0
Created for	0	Audrey	Understand	0	0	0
Created for	0	Audrey	Understand	0	0	0
Created for	0	Audrey	Understand	0	0	0
Created for	0	Audrey	Identify and	0	0	0
Created for	0	Audrey	Identify and	0	0	0
Created for	0	Audrey	Describe and	0	0	0
Created for	0	Audrey	Count to tell	0	0	0
Created for	0	Audrey	Count to tell	0	0	0
0	0	0	Count to tell	0	0	0
Created for	0	Audrey	Compare	0	0	0
Created for	0	Audrey	Classify	0	0	0
Created for	0	Audrey	Classify	0	0	0

Created for	0	Audrey	Analyze,		0	0	0
K-6 Options	0	Bryce	Full Year		0	0	0
K-3 options	0	Tammy	Full Year		0	0	0
K-3 options	0	Tammy	Full Year		0	0	0
K-3 options	0	Tammy	Full Year		0	0	0
K-3 options	0	Tammy	Full Year		0	0	0
K-3 options	0	Tammy	Full Year		0	0	0
K-3 options	0	Tammy	Full Year		0	0	0
Includes	0	Brianna		0	0	0	0
Adapted from	0	Dana		0	0	0	0
0	0	Deborah		0	0	0	0
"Staircase"	0	Nathan		0	0	0	0
Graphs have	0	Jan Leslie		0	0	0	0
0	0	Brianna		0	0	0	0
Teacher	0	Don Newman		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Don Newman		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Michelle		0	0	0	0
0	0	Jamie Ballard		0	0	0	0
TPT Freebie	0	Michelle		0	0	0	0
Abby Bates	0	notes layout		0	0	0	0
Teacher	0	Angela Ratliff		0	0	0	0
Teacher	0	Don Newman		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Notes to use -	0	Tessa		0	0	0	0
Teacher	0	Don Newman		0	0	0	0
Teacher	0	Don Newman		0	0	0	0
Includes 10	0	Brianna		0	0	0	0
0	0		0	0	0	0	0
Teacher	0	Todd Nelson		0	0	0	0
Includes	0	Brianna		0	0	0	0
0	0		0	0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Includes	0	Brianna		0	0	0	0
Teacher	0	Jessica Geraci		0	0	0	0
Teacher	0	Don Newman		0	0	0	0
https://robertk	0	Robert		0	0	0	0
0	0		0	0	0	0	0
0	0	Brianna		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Barbra		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Teacher	0	Michelle		0	0	0	0
Notes to use -	0	Tessa		0	0	0	0
Includes	0	Brianna		0	0	0	0
Teacher	0	Don Newman		0	0	0	0
I thought this	0	Christy		0	0	0	0
0	0	Jessica Geraci		0	0	0	0
Teacher	0	Amber Riel		0	0	0	0
Open middle	0	Denise Russo		0	0	0	0
Teacher	0	Tessa		0	0	0	0

Teacher	0	Sharon Soule	0	0	0	0
teacher	0	Dana Carie	0	0	0	0
Teacher	0	Emily Latham	0	0	0	0
0	0	Nathan	0	0	0	0
Card sorts can	0	Peter	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher-	0	0	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
0	0	Malia	0	0	0	0
Not created by	0	Tessa	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
0	0	Jacqui Rhodes	0	0	0	0
0	0	Brianna	0	0	0	0
Source: Three	0	Johanna	0	0	0	0
Teacher	0	Andrea	0	0	0	0
Teacher	0	Andrea	0	0	0	0
Teacher	0	Ginny Enfield	0	0	0	0
Teacher	0	Ginny Enfield	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Barbra	0	0	0	0
Teacher	0	Ginny Enfield	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Mark	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Cheryl	0	0	0	0
Teacher	0	0	0	0	0	0
Teacher	0	Andrea	0	0	0	0
Teacher	0	Autumn	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Jessica Geraci	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Étienne Perron	0	0	0	0
From Jim	0	Tom Fisher	0	0	0	0
teacher	0	Adina R	0	0	0	0
There are two	0	Andrea	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
0	0	Tessa	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
From Jim	0	Tom Fisher	0	0	0	0
0	0	Stefanie.frey@	0	0	0	0
Teacher	0	Michelle	0	0	0	0
Teacher	0	Lori Thomas	0	0	0	0
0	0	Brianna	0	0	0	0
0	0	0	0	0	0	0
0	0	Brianna	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Ginny Enfield	0	0	0	0
added	0	Kim Scott	0	0	0	0
0	0	Jessica Geraci	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
0	0	Sharon Soule	0	0	0	0
Includes Task	0	Brianna	0	0	0	0
Includes	0	Brianna	0	0	0	0

Teacher		0	Don Newman	0	0	0	0
Teacher		0	Katrina Misley	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Created by me		0	Karen H.	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Amanda	0	0	0	0
Adapted from		0	Kristen Moore	0	0	0	0
Open middle		0	Denise Russo	0	0	0	0
Teacher		0	Michelle	0	0	0	0
Modified from		0	Tringle Witt	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Kristen Moore	0	0	0	0
Teacher		0	Martha	0	0	0	0
A problem of		0	Farr Quinn	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Digital version		0	Don Newman	0	0	0	0
Teacher		0	Jessica Geraci	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Jessica Geraci	0	0	0	0
Teacher		0	Tessa	0	0	0	0
From the VA		0	Farr Quinn	0	0	0	0
teacher		0	Mickie Gibbs	0	0	0	0
teacher		0	Dana Carie	0	0	0	0
Source:		0	Mickie Gibbs	0	0	0	0
Teacher		0	Michelle	0	0	0	0
Digital version		0	Don Newman	0	0	0	0
The way I'm	Mackenzie		Mackenzie	0	0	0	0
teacher		0	Mickie Gibbs	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Dana Carie	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Tornes/Hawk/	0	0	0	0
Teacher		0	Tornes/Hawk	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
	0	0	Tessa	0	0	0	0
Teacher		0	Tessa	0	0	0	0
from Alex		0	Abby Bates	0	0	0	0
Teacher		0	Alison Childers	0	0	0	0
Teacher		0	Mark	0	0	0	0
	0	0	0	0	0	0	0
Teacher		0	Mark	0	0	0	0
	0	0	Kimara Webb	0	0	0	0
teacher		0	Melony Letarte	0	0	0	0
NCTM		0	Kristen moore	0	0	0	0
Illustrative		0	Kristen moore	0	0	0	0
MAP		0	Kristen moore	0	0	0	0
Dan Meyer		0	Rachel	0	0	0	0

Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
	0	0	Brianna	0	0	0	0
Includes 7		0	Brianna	0	0	0	0
Includes 7		0	Brianna	0	0	0	0
Teacher		0	Katrina Misley	0	0	0	0
Created by me		0	Karen H.	0	0	0	0
Teacher		0	Nate	0	0	0	0
Teacher		0	Jessica Geraci	0	0	0	0
Teacher		0	Jessica Geraci	0	0	0	0
WERWQ		0	Neleigh	0	0	0	0
teacher		0	Tessa	0	0	0	0
Teacher		0	Dana Carie	0	0	0	0
Teacher		0	Dana Carie	0	0	0	0
teacher		0	Dana Carie	0	0	0	0
	0	Sarah Forst	Sarah Forst	0	0	0	0
	0	0	0	0	0	0	0
Teacher		0	Jessica Geraci	0	0	0	0
Teacher		0	Jessica Geraci	0	0	0	0
teacher		0	Monica	0	0	0	0
Teacher		0	Mickie Gibbs	0	0	0	0
	0	0	Deborah	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
Teacher		0	Todd Nelson	0	0	0	0
	0	0	Carri Chesler	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
Math Medic		0	Kristen Moore	0	0	0	0
Includes		0	Brianna	0	0	0	0
Includes 7		0	Brianna	0	0	0	0
	0	0	0	0	0	0	0
Teacher		0	Jessica Geraci	0	0	0	0
Teacher		0	Neleigh	0	0	0	0
Teacher		0	Jessica Geraci	0	0	0	0
Teacher		0	Don Newman	0	0	0	0
	0	0	Susan Meisels	0	0	0	0
www.aliciabur		0	Abby Bates	0	0	0	0
teacher		0	Dana Carie	0	0	0	0
From the VA		0	Linda Krajcik	0	0	0	0
link is broken		0	Yuliya Milbeck	0	0	0	0
	0	0	Pattie Brittan	0	0	0	0
link is broken		0	Brandi Grimes	0	0	0	0
Lessons 1 - 7		0	Anna Blinstein	0	0	0	0
The basic		0	Melissa Battis	0	0	0	0
Just the		0	Cory Loveless	0	0	0	0
Just the		0	Cory Loveless	0	0	0	0
	0	0	Tessa	0	0	0	0
Asking for any		0	Lisa Lee	0	0	0	0
	0	0	Kristin	0	0	0	0
	0	0	Heather	0	0	0	0
	0	0	Logan	0	0	0	0
	0	0	Kristin	0	0	0	0

0	0	Logan	0	0	0	0
0	0	Leslie Greer	0	0	0	0
Use this idea	0	Pattie Brittan	0	0	0	0
Wrong link	0	Tessa	0	0	0	0
0	0	Tessa	0	0	0	0
0	0	Tessa	0	0	0	0
This was	0	0	0	0	0	0
0	0	Megan Guidry	0	0	0	0
I made this a	0	Leslie Greer	0	0	0	0
hochs@pasco.	0	Heather Ochs	0	0	0	0
hochs@pasco.	0	Heather Ochs	0	0	0	0
0	0	Logan	0	0	0	0
Thin Slice	0	Deborah	0	0	0	0
0	0	0	0	0	0	0
This should	0	Melissa Battis	0	0	0	0
0	0	Logan	0	0	0	0
0	0	Tessa	0	0	0	0
0	0	0	0	0	0	0
0	0	Kristina	0	0	0	0
0	0	Logan	0	0	0	0
0	0	Tessa	0	0	0	0
Thin Slice	0	Deborah	0	0	0	0
0	0	Jen Theuret	0	0	0	0
0	0	Logan	0	0	0	0
Based on a	0	Katie Bills	0	0	0	0
0	0	Amber Riel	0	0	0	0
0	0	Amber Riel	0	0	0	0
0	0	Logan	0	0	0	0
These three	0	asmith@tamp	0	0	0	0
0	0	asmith@tamp	0	0	0	0
0	0	asmith@tamp	0	0	0	0
0	0	Stefanie.frey@	0	0	0	0
0	0	Stefanie.frey@	0	0	0	0
0	0	Stefanie.frey@	0	0	0	0
0	0	Stefanie.frey@	0	0	0	0
0	0	etienne.perron	0	0	0	0
Quick format	0	spoppen@isd	0	0	0	0
Quick task that	0	ssmith4@garfi	0	0	0	0
0	0	Dana	0	0	0	0
0	0	Dana	0	0	0	0
These are built	0	Melissa Battis	0	0	0	0
0	0	Logan	0	0	0	0
0	0	Melissa Battis	0	0	0	0
My geometry	0	0	0	0	0	0
(These are	0	mlkubaitis@sc	0	0	0	0
Meant to be	0	98abigails@g	0	0	0	0
Adapted from	0	98abigails@g	0	0	0	0
Adapted from	0	98abigails@g	0	0	0	0
If your	0	98abigails@g	0	0	0	0
0	0	98abigails@g	0	0	0	0
0	0	98abigails@g	0	0	0	0
Just found this	0	98abigails@g	0	0	0	0
Just found this	0	98abigails@g	0	0	0	0
0	0	0	0	0	0	0
I am going to	0	Pattie Brittan	0	0	0	0
0	0	Stefanie.frey@	0	0	0	0
I used	0	98abigails@g	0	0	0	0
Trying to avoid	0	98abigails@g	0	0	0	0
0	0	98abigails@g	0	0	0	0

0	0	98abigails@g	0	0	0	0
0	0	98abigails@g	0	0	0	0
0	0	98abigails@g	0	0	0	0
This comes	0	Dana	0	0	0	0
0	0	0	0	0	0	0
0	0	Logan	0	0	0	0
0	0	0	0	0	0	0
The first sets	0	Janet	0	0	0	0
The Water	0	Betsy	0	0	0	0
Teacher	0	Katrina Misley	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Ellaina Willis	0	0	0	0
8-2 Bowser's	0	Amber Riel	0	0	0	0
0	0	0	0	0	0	0
0	0	Martin Cornejo	0	0	0	0
0	0	Martin Cornejo	0	0	0	0
Teacher	0	Étienne Perron	0	0	0	0
Teacher	0	Martin Cornejo	0	0	0	0
Teacher	0	Martin Cornejo	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Martin Cornejo	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Ginny Enfield	0	0	0	0
Teacher	0	Martin Cornejo	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Connie	0	0	0	0
Teacher	0	Martin Cornejo	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
8-2 Bowser's	0	Amber Riel	0	0	0	0
0	0	0	0	0	0	0
task from	0	Abby Bates	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0
Teacher	0	Shannon	0	0	0	0
Teacher	0	Jennifer	0	0	0	0
Teacher	0	Amber Riel	0	0	0	0
Teacher	0	Amber Riel	0	0	0	0
Teacher	0	Amber Riel	0	0	0	0
Teacher	0	Amber Riel	0	0	0	0
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Teacher	0	Amber Riel	0	0	0	0
Teacher	0	Amber Riel	0	0	0	0
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Teacher	0	Don Newman	0	0	0	0

Teacher	0	Betsy	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0
Teacher-	0	Amber Riel	0	0	0	0
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Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
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Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Ginny Enfield	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
SpringBoard	0	Betsy	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0
Teacher	0	Elaine Kaiser	0	0	0	0
8-2 Bowser's	0	Amber Riel	0	0	0	0
link for graphs	0	Abby Bates	0	0	0	0
0	0	0	0	0	0	0
I had students	0	Abby Bates	0	0	0	0
0	0	0	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
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Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Pulled from	0	Betsy	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0
Created by me	0	Karen H.	0	0	0	0
8-2 Bowser's	0	Amber Riel	0	0	0	0
0	0	Teacher	0	0	0	0
0	0	0	0	0	0	0
These are	0	Amber Riel	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Created by me	0	Karen H.	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
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Teacher	0	Allison Simon	0	0	0	0
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Teacher-	0	Todd Nelson	0	0	0	0
teacher	0	Abby Bates	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0
teacher-	0	Abby Bates	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0

Teacher-	0	Todd Nelson	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0
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Teacher	0	Ellaina Willis	0	0	0	0
Teacher	0	Ellaina Willis	0	0	0	0
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I had students	0	Created by	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher-	0	Todd Nelson	0	0	0	0
Teacher-	0	Louis Lizima	0	0	0	0
teacher	0	Abby Bates	0	0	0	0
Teacher	0	Amber Riel	0	0	0	0
Teacher	0	Eric Houston	0	0	0	0
0	0	0	0	0	0	0
0	0	Betsy	0	0	0	0
I teach Math 3	0	Abby Bates	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Don Newman	0	0	0	0
Teacher	0	Sharon Soule	0	0	0	0
Teacher	0	Dana	0	0	0	0
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Topic:	Topic:	Topic:	Topic	Topic:	Topic:	Topic:	
	0	0	0	0	0	0	Perpendicular
	0	0	0	0	0	0	Geometry
	0	0	0	0	0	0	0
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	0	0	0	0	Inequalities	0	0
	0	0	0	0	Proportional	0	0
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	0	0	0	0	0 Intro & Key		0
	0	0	0	0	0	0	Geometry
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0	0	0	0	0	Solving	0
0	0	0	Full Year	0	0	0
0	0	0	0	0	0	Coordinate
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0	0	0	0	0	0	Circles
0	0	0	0	0	0	Area, Surface
0	0	0	0	0	Rational	0
0	0	0	0	0	Full Year	0
0	0	0	0	0	Exponential	0
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0	0	0	0	0	Rational-	0
0	0	Full Year	0	0	0	0
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0	0	0	0	Solving	0	0
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0	0	0	0	0	Polynomials-	0
0	0	0	Unit Rates and	0	0	0
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0	Numbers and	0	0	0	0	0
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	0	0	0	0	0	Resources	0
Trigonmetry	Topic:	CalculusTopic	Probability		Resource:	Description:	
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	0	0	0	0	0	Rubric	of Amy Barry's
	0	0	0	0	0	Task website	Stunners: Non-
	0	0	0	0	0	Grouping	Random
	0	0	0	0	0	tasks K-12	curated list of
	0	0	0	0	0	0	0

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0	0	0	0	0	Random	Randomizing
0	0	0	0	0	Random	Randomizing
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Welcome! K-12 Curricular Task Sharing

This is a working document to collect information and resources for

This sheet has a different tab for each grade level and are then

Copyright protection: Please do not insert images from books, link

Sheet currated by the admin, moderators, and others from the Building

Please add your own

Link to shared non-curricular tasks.

	Reliable, vetted websites that contain a wide
Name of Site	**Link**
Curricular Tasks	
Nrich	https://nrich.maths.org/
Youcubed	https://www.youcubed.org/
Open Middle	http://www.openmiddle.com/
Math Pickle	https://mathpickle.com/organized-by-grade/
Inside Mathematics	https://www.insidemathematics.org/problems-of-the-month/d
MAP/MARS	https://www.map.mathshell.org/index.php
SVMI	https://svmimac.org/
NCTM	https://www.nctm.org/Classroom-Resources/Browse-All/?cp=
3-Act Tasks- Graham Fletcher	https://gfletchy.com/3-act-lessons/
3-Acr Tasks Kristen Acosta	https://kristenacosta.com/3-acts/
3-Act Tasks- Dan Meyer	https://docs.google.com/spreadsheets/u/0/d/1jXSt_CoDzyDF
3-Act Tasks	https://tapintoteenminds.com/3act-math/
Tasks from Robert Kaplinsky	https://robertkaplinsky.com/lessons/
Illustrative Math	https://tasks.illustrativemathematics.org/
YummyMath	https://www.yummymath.com/
Mathalicious	https://www.mathalicious.com/lessons
Make Math Moments	https://learn.makemathmoments.com/tasks/
Math For Love	https://mathforlove.com/lessons
Univ of Waterloo Tasks	https://www.cemc.uwaterloo.ca/resources/potw.php
Thin Sliced Questions	https://taylorda01.weebly.com/increasingly-difficult-questions.
Minimally Different	https://minimallydifferent.com
Inquiry Maths	https://www.inquirymaths.com/home
Tasks	https://airtable.com/shrQNuV4Sh1EEttOe/tblZgGfGPZERCxj
Phillips Exeter Academy	https://www.exeter.edu/mathproblems
Alicia Burdess	https://www.aliciaburdess.com/teacher-resources?fbclid=IwA
Incresingly Difficult Questions	https://taylorda01.weebly.com/increasingly-difficult-questions.
DOE- Virginia	https://www.google.com/url?q=https://www.doe.virginia.gov/te

Non-Curricular Tasks	
Peter Liljedahl's Site	https://www.peterliljedahl.com/teachers/good-problem
Peter Liljedahl's Site	https://www.peterliljedahl.com/teachers/card-tricks
Peter Liljedahl's Site	https://www.peterliljedahl.com/teachers/numeracy-tasks
Weekly Math Tasks	https://www.bcamt.ca/weeklymathtasks/
Puzzles, games	https://mathequalslove.net/
Alicia Burdess	https://www.aliciaburdess.com/teacher-resources?fbclid=IwA
Stella's Stunners	http://www.mathstunners.org/
Fermi problems	https://www.innovativeteachingideas.com/blog/an-excellent-c
Duane's Collectiong of NonCu	https://docs.google.com/document/d/1EMq1w2gdI--oSN5cRU

variety of thinking tasks (usually organized by grade/standard).

Notes

UK Site (grade levels are slightly different) -Nrich Maths Secondary Curriculum Map

Tasks from Jo Boaler at Stanford

Problems with multiple pathways/answers. DOK level 2 and 3 problems that can replace worksheet practice.

Puzzles/problems

Problems of the Month

Formative Assessment Lessons and Tasks by grade level (6-HS)

Silicon Valley Mathematics Initiative- District Membership required- Performance tasks (MARS/MAC tasks and p

Problems to browse (some you need to be a memeber)

K-5 Tasks listed by grade/standard

K-6 tasks

Secondary Tasks- standard listed

K-12 tasks; search by common core or Ontario standards at the top

Can search by grade level at the top.

Search for tasks by grade level.

Tasks by grade (3-HS)

Tasks by grade/domain (6-HS)

Tasks by topic/standard (K-12)

Task, Openers and Games (K-12)

html

Collection of thin sliced problems

Collection of prompts for inquiry based learning

Collection of Tasks- all grades (Saskatchewan) put together by @webbkyle and @MaeganGiroux

High School math problems used at Phillips Exeter Academy

Full curriculums for 2nd, 3rd, and 8th grade (scroll all the way down), but many of the tasks are noncurricular anc

"Thin sliced" problem sets by topic.

Tasks by grade level (K-HS)

Good problems from Peter's website.

Card Tricks from Peter's website.

Numeracy Tasks by grade span

Collection of Non-curricular tasks (4-12)

games, puzzles, brainteasers

Full curriculums for 2nd, 3rd, and 8th grade, but many of the tasks are noncurricular and span multiple grade lev

Non routine problems, some curricular and some noncurricular

Fermi problems are ones that are open-ended and leave decisions about parameters up to the students. For exa

Shared on Twitter. All tasks have been used with middle school students.

roblems of the month

d span multiple grade levels.

els.

ample, how many bowling balls would it take to cover a tenis court?

Resource	Short Description/Comments	Link	Credit/Added By		
Door Sign for thinking classroom	sign for door for visitors asking them not to give answers and a few suggestions on questions they might ask	Copy of Thinking Classroom	created by Trish Meixell		
Algebra I Important Information & Student Get to Know You	Google Slides presentation for students to read and complete.	Algebra I Important Information & Student Get to Know You	Recreated Anna Blinstein's First Day Letter and Syllabus into		
Assessment Rubric Template	24 pages of Module Unit Grading Rubrics set up similar to what is found in Chapter 14. The first one is filled in so you can	BTC Grading Rubric Template	stefanie.frey@ccboe.net Feel free to contact me if you have		This is the correct link: https://docs.google.com/document/
Assessment Rubric Template (Whole Class)	This is a google doc or spreadsheet version that can be printed out for a clipboard to capture as students are working	Google Doc	cmcclellan@scoe.net		
Assessment Rubric Template for Teachers	For Teacher Data/Conference Binder - add units/topics/subtopics	https://docs.google.com/document/d/1Uq88YgkrIKHX6BHOpK2MSjiCLm3Son09wifb2vbkrE4/edit?usp=sharing	Rachel Guempel		
Back to School Night Presentation Powerpoint	Quick overview for parents of what to expect and why BTC	https://docs.google.com/presentation/d/1WPNTdU-pZVVmd-2du21aLrkWiK			
Book Study Guide	This is the guide published by Corwin.	https://us.corwin.com/docs/default-source/resources-documents/us-1582696-book-study	added by Abigail Bates		
BTC Elevator Speech	a description for families about what a thinking classroom looks and sounds like and why (a little long-winded)	https://docs.google.com/document/d/1EUTJlKKOMOmxAMoSCMH6hIWmnraPtnRYBPPYkvtT2o/edit?usp=sharing	created by Beth Alsberg		
BTC Elevator Speech	Towards a thinking classroom - For Parents & Students	https://drive.google.com/file/d/1Oe01bomn-xXxenzRcW2cM_maHsOGnHeK/view?usp=sharing	created by Darcy House		
BTC Executive Summary	Summary of BTC. May be helpful for parents, admin, etc to get a basic understadning of BTC	https://us.corwin.com/docs/default-source/resources-documents/us-1581808-what-is-building-thinking	added by Don Newman		
BTC Syllabus Language	An "addendum" to the syllabus that covered many BTC practices, including grading by standard and level, and what	https://docs.google.com/document/d/1degLoWYlmzLIm1wpFgynXKnO8Pdajvi97/edit?usp=sharing&ouid=106053485084789			
Chapter 14 Rubric	Google doc containing an example chapter 14 grading rubric	https://docs.google.com/document/d/19uPZ7WtqmK0ohhWSWM7ayoc9k4mMWn2gRmo76wIfmw/edit?usp=sharing	Don Newman		
Classroom Norms for thinking groups	posted in classroom for visitors and for reminders for students	https://docs.google.com/presentation/d/1FalkZEmzLXHZ3NzbEXM4x4ELIP6beoNOiLIb06bNnvBuO/edit?usp=sharing	Maggie Perreault & Irene Witt		
Classroom Posters	Two posters for students to know the whiteboard expectations and the expectations for notes and CYUs	https://drive.google.com/file/d/1UQ4kPmBMYUx8XquZzc9cqyiL2C4C7dv/view?usp=sharing	Kim Alvarado		
Colaboration rubric for groups	posted at each thinking board	https://docs.google.com/presentation/d/17Ic0JCUNPSKP3DLINvS4EsfAdHHnObCMwLJZADobRo2c/edit?usp=sharing	Maggie Perreault & Irene Witt		
Collaboration Rubric	Working with Your Partner Rubric, What it looks like and does not look like	Collaboration Rubric	Added by Dana Carle, from the Chpt 12 Zoom meeting on		
Collaboration Rubric	Rubric made by 9th grade pertaining to good group work.	https://docs.google.com/presentation/d/17o9TYWMO6ABuRjezttLHzw_EaV3vLfrL74i0vg887Vo/edit#slide=id.g145d2297fbe_1_1	Stuart Neal		
Competency Rubric Template with Icons	Template with Icons	https://docs.google.com/presentation/d/1mgarHoOVwkmCjejDU	Adapted from the rubric above to contain icons to choose from		
Concept Grid and Rubric Example	This is a concept grid or rubric for a unit on linear equations. THe full unit can be found under the Algebra 1/Math 1 tab	https://docs.google.com/document/d/1H3peccsRps_HQmS7Oc9S5KTvEZi7ERs5/edit?usp=sharing&ouid=106053485084 7	Nate Woodward		
Consolidation Questions	Questions you can use to help guide discussion during consolidation	4	Margie Pearse		
Conversation Bubbles	Sentence starters to help groups talk about math.	https://drive.google.com/file/d/1fDpg4XYJOVSzw-pgsP4Bb6ZOky-yelkX/view?usp=sharing	Kim Alvarado		
Data Gathering Instrument	DGI Linear Equations, Ontario Curriculum MFM2P (grade 10 applied)	https://docs.google.com/document/d/1-1vQCmSRNSFCL1ta_2hpD14zOnoe9Lpa/edit?usp=sharing&ouid=115135360583806267444&rtpof=true&sd=true	Tory Carter		
Deck of Cards	Thanks to Erika Toft Fisher for creating. I simply put it in google slides for ease of printing. Printing "as is" will print 8.5 x 11	https://docs.google.com/presentation/d/1kJhgflkU4pWSd1SHExk_QosmiPNMlQNkBXSsDVR0Jdg/edit?usp=sharing	Erika Toft Fisher & Camille Williams		
Developmental Solutions Strategies Continuum	I adapted the "Children's Solution Strategies" chart listed on page 41 of the text cited in colum D and added the record sheet on the bottom. Typically, I choose 2 - 3 students per day on which to use this rubric/ record sheet. I make several copies of this sheet per student so I can have a running record of their problem solving development. I find the continuum on the first page to be helpful in showing their parents how their students are developing mathematically. I add a dot and date on the continuum to indicate where the student is at the end of each term. It is hoped that the student will begin using more complex strategies to solve more complex problems.	https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:ad508b78-0719-39af-af0c-ecf29b7fc453	Marcia Oman and Children's Mathematics: Cognitively Guided Instruction, Second Edition, by Carpenter, Fennema, Franke, Levi, and Empson. pg. 41.		
Digital Open Middle Questions	GeoGebra Book containing a collection of digital interactive Open Middle exercises organized by grade/standard	https://www.geogebra.org/m/jazvukfd	Created by Tim Brzezinski/ Added by Juanjo Paneque		
Door Sign for thinking classroom	sign for door for visitors asking them not to give answers and a few suggestions on questions they might ask	https://drive.google.com/file/d/1ggH3z1p1bXBrnGlBvMqlB9qvs0w8ZbzD/view?usp=sharing	Alli Partner - Copied from Trish Meixell and Jennifer Dyer with new aesthetics.		
End of Year Student Survey (view only- make a copy to use/edit)	Google Form given to students at the end of the year to get their feedback on BTC	https://docs.google.com/forms/d/19N0RyEQbI9-oWnn3vRsu94CnrKJI9dPKHMlfnOSdw4U/copy	Created by Abigail Bates- Expanded on Don's survey above and added to it (thanks Don!)		
First Day Letter (interactive syllabus)	A letter to my students that explains the way the class will work while having them reflect on and respond to prompts in the letter.	https://docs.google.com/document/d/1I51j-1S3jdyrd0kYY9mH64K4AhPCTHn_ThlZBvQHvXQ/edit	Anna Blinstein		

Flippity workaround video	Video that provides easy to follow step-by-step directions for using Flippity to make VRG without the need for a Google Sheet each time.	https://drive.google.com/file/d/1Dfj_xnhGuDtZX25jLLeaVZqKaP-3W5Vc/view?fbclid=IwAR1PZqAyhvHmb-WV-pU_XwldXvowV1MSKWrHVZjvppsfln5b1MlGqgJENjU	created by Robyn Gabay Bennett		
Gradebook	A Google sheets gradebook that keeps track of mastery in learning standards with customizable conversions to percentages	https://docs.google.com/spreadsheets/u/1/d/1AbTDbVxOu_GC3-4onctAHEKElRiFI--yWZQfMbQv23g/copy	Nick Bianculli		
Gradebook spreadsheet	A spreadsheet I use to keep track of students' levels of mastery for topics in each unit. I also created a spreadsheet for each student that they can access that imports data from my master gradebook, but only shows each student the topics, the resources, and their individual scores.	https://docs.google.com/spreadsheets/d/1zrmUdghi4fRhPgE22mJAoey1z2LAMUBMY1e3-gtwacY/edit#gid=2136429945	Anna Blinstein		
Graphic Organizer	Graphic organizer templates for meaningful notes .	https://docs.google.com/presentation/d/1nMvI0RlWbmWYwAcQk0JFB7NnASN9519B_i0fUY-146o/edit?usp=drivesdk	created by Dana Carrie		
Graphic Organizer	Generic graphic organizer for meaningful notes	https://drive.google.com/file/d/1c3GifE8B0mr3914TaVRh7PQHiFTmIaSa/view?usp=sharing	added by Don Newman		
Graphic Organizer	Type IV graphic organizer for meaningful notes. Figure 11.6 on page 198 was used as the model.	https://docs.google.com/presentation/d/1bMlvzYcMshEw5UmNDViXFRwbmPYVA7RX9LUgifMb1XI/edit?usp=sharing	created by Don Newman		
Graphic Organizer	Don Newman's graphic organizer modified with a LG and student self assesment	https://docs.google.com/document/d/18GtGS0-XW9QPROU0Y3th8VSoa-QpcUp8vvusEG8ZbTk/edit?usp=sharing	Modified by Jake Coleiro Added by Denise Grightmire		
Growth Mindset videos and reflection question	The videos are from YouCubed. I use these the first four days of school to help develop a thinking culture.	https://docs.google.com/document/d/1J5x_RP6pkkpJbNDb1PoWVVge1jWXhqvzYsR2gzCNyHw/edit?usp=sharing	Deborah Harper		
Info graphic for students & families	Info graphic created for students and families to explain BTC classroom rountines. (note- that we are not implementing standard based grading yet and still need to track homework)	https://drive.google.com/file/d/1mRjCVr6UGZzx3h2zIUaR2kqMgbkn7K7b/view?usp=sharing	Maggie Perreault & Irene Witt		
Interactive Notebook Template	Template to create interactive notebook pages.				
Letter to Parents (BC-based)	Designed for high school, explaining the process and the way a percentage will be developed (when percentage is required on report cards)	https://docs.google.com/document/d/1BkDCLMcoRkldm2FdDOMK4qptQyvFkDZLB2hs1M4jK3s/edit?usp=sharing	created by Fiona Meagher		
Meanginful Notes Graphic Organizer Example	Graphic organizer with prelabeled cells to demarcate different subtopics (similar to one on p. 197). It is aligned to the synthesis questions in IM Grade 7 Unit 3.	https://docs.google.com/document/d/1HYgkrAHcxFZsuZ07MnfcMUG92DtB76TMjmL8BPXRIfE/copy	Rebecca Layton		
Meaningful notes pdf		https://drive.google.com/file/d/1UcmVBMTtytBUbPqIwr7b8Pa1QbY2HgL0/view?usp=sharing	teacher made	access is not granted to view document	
Meaningful Notes and Exit Tickets (Most recent version of Peter's recommendations)	This graphic organizer template with examples and student samples is a version of what Peter suggested as a Stage 1 example. The exit tickets are modelled after this idea of an error analysis with justification and correction.	https://docs.google.com/document/d/1L0AYgRXTkNOhlZ2fvt6l1P8YsiPM2-360XNSPsuC4gU/edit	Currated by Chelsea McClellan, credit to Derek Bovee.		
Meaningful Notes Graphic Organizer Template	Graphic organizer with prelabeled cells to demarcate different subtopics (similar to one on p. 197). Just add the topics before or leave blank and students can add as needed.	https://docs.google.com/document/d/12BmkNztPKidHbBF88HNQZpodugt3vPZAPySouYW1NA4/copy	Rebecca Layton		
Meaningful Notes Template	u	https://docs.google.com/document/d/1I1DMSBXlf3Nuhwh5l6OfibdreQ7SWOoFnhgyRl1I1IU/edit	Anna Blinstein		
Meaningful notes word doc	for notes, cfu template, and self reflection	https://docs.google.com/document/d/1gDXAhNzgCnFhSCJnu4y3Q3-cc3k9_l8V/edit?usp=sharing&ouid=117475228262443427451&rtpof=true&sd=true	teacher Made	access is not granted to view document	
Meaningful Notes: Adding Fractions	A work in progress using the framework described by P.L. in the FB talk Aug 2021	https://docs.google.com/presentation/d/1VdWB4eZ_PkN3sc-e-Qsg765z9IP9vAPJivPpR5x2TYQ/edit?usp=sharing	Frank McGowan		
Multiple Representations Solution Sheet	Solution sheet template that has students work through multiple representations for a problem (based on Jo Boaler's work)	https://docs.google.com/document/d/1xP0kyn-ysqYRQP64kv8ffUScjUmqQy_9/edit?usp=sharing&ouid=106990671765647902669&rtpof=true&sd=true	Chris Sarkonak		
Navigation Instrument - Check Your Understanding	NI-CYU Linear Equations, Ontario Curiculum MFM2P (grade 10 applied), text: Foundations of Mathematices 10 by McGraw-Hill Ryerson	https://docs.google.com/document/d/1-RdRklbY1B63WZN20ve6x60mT8lZZesU/edit?usp=sharing&ouid=115135360583806267444&rtpof=true&sd=true	Tory Carter		
Navigation Instrument - Quiz	NI-Quiz Solve One-Step Linear Equations, Ontario Curriculum MFM2P (grade 10 applied)		Tory Carter		

Navigation Instrument - Review Test	NI-Review Linear Equations, Ontario Curriculum MFM2P (grade 10 applied); all students correctly answered Advanced level on quiz for One-step; did not have time for Convert to Standard Form		Tory Carter		
Navigation Instrument - Test	NI-Test Linear Equations, Ontario Curriculum MFM2P (grade 10 applied); all students correctly answered Advanced level on quiz for One-step; did not have time for Model with Formulas and Convert to Standard Form	https://docs.google.com/document/d/1-clmnzoFu8hMK6L-gnNsjN8bCMbRP1OZ/edit?usp=sharing&ouid=115135360583806267444&rtpof=true&sd=true	Tory Carter		
Open Ended Questions Book	Good Questions by Marian Small	https://www.nctm.org/Store/Products/Good-Questions--Great-Ways-to-Differentiate-Mathematics-Instruction-in-the-Standards-Based-Classroom,-4th-ed/	Added by Denise Grightmire		
Open Ended Questions Book	More Good Questions by Marian Small	https://www.google.com/search?q=more+good+questions+marian+small&rlz=1C1CHBF_enCA848CA848&sxsrf=APq-WBuOmiVd0CPAH3j5lH4T3xfbWsrDLg%3A1645398173884&ei=ncgSYs_MNZmFoATErq7oBw&ved=0ahUKEwiPj6ztsY_2AhWZAogKHUSXC30Q4dUDCA4&uact=5&oq=more+good+questions+marian+small&gs_lcp=Cgdnd3Mtd2l6EAM6CAgAEIAEELADOhAILhCABBDUAhDIAxCwAxgAOgcILhDUAhANOgQIABANOgcIIxCwAhAnOgUIABCiBEoECEEYAUoECEYYAFC6B1jZDGDhEmgBcAB4AIABVogBjAOSAQE1mAEAoAEByAEDwAEB2gEECAAYCA&sclient=gws-wiz	Added by Denise Grightmire		
Open Middle Questions	Website by Robert Kaplinsky	https://www.openmiddle.com/	Added by Denise Grightmire		
Pam Harris	Number Talks, Problem Strings, Her philosophy is to teach students that math is figure-out-able and you don't need an algorithm to do math.	https://www.mathisfigureoutable.com/home	added by Dana Carie		
Pam Harris eBooklet The Most Important Numeracy Strategies with Hyperlinks to videos	Learning Progressions and Modeling for Early Numeracy to Middle School	https://www.icloud.com/iclouddrive/08e1E_SjfKjIkrXG8YLuw3y1g#Math_Pam_Harris_The_Most_Important_Numeracy_Strategies_Ebooklet_hyperlinked	Sasha Wise		
Parent Presentation	These are slides that I post at the start of the year to explain the main components of BTC to my students and their families.	https://docs.google.com/presentation/d/1165sUTRQc1xRTCTN0xRErypAY6wrwApq/edit?usp=sharing&ouid=109081491667990453495&rtpof=true&sd=true	Kim Alvarado		
Partner Evaluation Form	Google Form given to students after a task to evaluate their group members.	https://docs.google.com/forms/d/1xSmNc6_8dt2jK9FR_meUQN0bN1_7lQr8ERQKzBTisyo/copy?fbclid=IwAR04jIjzrqVeFs0ivlDrdN-5T1BDDBXAHQ2KmIZk7fJOM-JC1QH3ElVD0R0	created by Lori MacKenzie		
Physics Assessment Rubric	Accelerating Motion & Newton's 2nd Law (Unit 5) Skills Rubric	https://docs.google.com/document/d/1LmJoPY1cGosfHvhcK0Nyic3hF7vDlIZXZQojMFC71Bk/edit	Justin Siebert		
Portfolio	This is a blank portfolio that I used with students last year for Math 3. Students each got their own copy through Google Classroom. I gave feedback after they submitted and then they could revise. Later in the year I tried to line it up more with the Learning Targets/Standards. Will probably make more changes this year.	https://docs.google.com/presentation/d/1UmWp24xigAzLJ3jx5Sna3zdkmgJgyLHWGNfzGEyeb6E/edit?usp=sharing	Abigail Bates		
Post Test Reflection	Specific to IM 6th Grade Unit 1	https://docs.google.com/document/d/1n2biOkFQR-Z8WykyzqevE6EgOzomlbiHnOPWmbspHkI/edit?usp=sharing	Created by Mindy Green		
Post Test Reflection	Specific to IM 6th Grade Unit 2	https://docs.google.com/document/d/1dzCG7fjki_IPGG2C3pwIFZepiaVV6qcm7RSrGaOfshY/edit?usp=sharing	Created by Mindy Green		
Post Test Reflection	Specific to IM 6th Grade Unit 3	https://docs.google.com/document/d/18q5ZWunPoh2BuQb0rkM40s81OTojzJuZBmsJDwd0aXE/edit?usp=sharing	Created by Mindy Green		
Post Test Reflection	Specific to IM 6th Grade Accelerated Unit 3 Mid Unit	https://docs.google.com/document/d/1PL-91o30Rrl8HY-O2LRCJHMbVfPf04IMX68P4VD9Y3o/edit?usp=sharing	Created by Mindy Green		
Post-Test Reflection	Self-reflection for students to evaluate how well they prepared for a test, as well as identify areas of strength and areas for improvement	https://docs.google.com/document/d/1epkoCY2jae-dxmh6N3K82Kdc_rPsHwKgZTdt7NaPi8c/copy	created by Sandra Cappadocia		
Problem Solving Rubric	My students and I generated a list of rules and a rubric to use during and after our tasks. Students write their name on the rubric and then hand it to their partner who circles the items their partner did well. I also use this to evaluate how well I see partners working together.	https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:c736ca12-0afd-3750-99f3-6402a816550b	Marcia Oman's First Grade Students		

Random grouper for google sheets	For classes with up to 45 Students. Adjusts for absence. Note: there is a hidden sheet with the guts of the randomizer in it, It won't work to copy the sheet for a different class; you'll want to make a copy of the whole file for each class.	https://docs.google.com/spreadsheets/d/1VTwxkFQAdAxV-ItClQRRVuwNxSkC4E0Vi2kj0ZvLbpE/copy	Created by Dawn Burgess		
Random Groups Spreadsheet	This spreadsheet will randomly assign groups for up to 45 students.	https://docs.google.com/spreadsheets/d/1VTwxkFQAdAxV-ItClQRRVuwNxSkC4E0Vi2kj0ZvLbpE/edit?usp=drivesdk	Created by Dawn Burgess		
RCSD Thinks Podcast	Podcast Episode 1-9 focuses on BTC	https://www.listennotes.com/podcasts/rcsd-thinks-rcsd-thinks-IhX3BRDYx47/			
Rubic for On Topic Behavior	Rubic for On Topic Behavior	https://docs.google.com/document/d/1KQDd965OzXpYUhL2aGX_RMi8TP8GRtzKSYM-wQx8KIQ/edit	Added by Dana Carie, from the Chpt 12 Zoom meeting on 6/16/22		
Rubric	Sample Rubric for various expectations	https://docs.google.com/document/d/1h-WK4CWZxQrCdW02ZIF4cLQpJIt3hrEL/edit?usp=sharing&ouid=107493594460747720790&rtpof=true&sd=true	Created by Denise Grightmire		
Rubric for Student Evaluation of Engagement	Rubric for Student Evaluation of Engagement	https://docs.google.com/document/d/1klQ_aIMhJR3FcarGNRjISQw5dHDO9NOttfwZyy3aH84/edit?usp=sharing	Added by Dana Carie, from the Chpt 12 Zoom meeting on 6/16/22		
Rubric for Student Evaluation of Engagement	Rubric for Student Evaluation of Engagement	https://docs.google.com/document/d/1klQ_aIMhJR3FcarGNRjISQw5dHDO9NOttfwZyy3aH84/edit?usp=sharing	Added by Dana Carie, from the Chpt 12 Zoom meeting on 6/16/22		
Rubrics	Simple rubrics for Communication, Knowledge/Thinking, Collaboration, and Agency	https://docs.google.com/document/d/1klQ_aIMhJR3FcarGNRjISQw5dHDO9NOttfwZyy3aH84/edit?usp=sharing	Anne Webb		
Sample Syllabus	Syllabus I used for the 21-22 school year. Has some info about BTC but is based on Geoff Krall's syllabus and blog posts.	https://docs.google.com/document/d/1klQ_aIMhJR3FcarGNRjISQw5dHDO9NOttfwZyy3aH84/edit?usp=sharing	Abigail Bates		
Sample Syllabus	Syllabus for Algebra A (first half of algebra 1) and Algebra B (second half)	Algebra A and Algebra B	Marnie Stiglitz		
Squares and Cubes Posters	Printable posters depicting the relationship between Squares and Cubes	https://mathequalslove.net/perfect-squares-and-perfect-cubes-posters/?fbclid=IwAR1-XT_mc5Ax-pbOvxCkTgWfHhy3YHJGDfvjRlkgJczOuaebY-SYm7i8ZE8	Sarah Carter/Anne Webb		
Stage 1 Note-making template	Based on Aug 7 zoom call with Peter	https://docs.google.com/document/d/1YjN9In0UGdfSZWRaeecKw1plQQHFsJKYZG4Y2zOKp98/copy	Michelle Muggridge		
Student prompts	Printable prompts to hang around the room to give students discussion sentence starters	https://drive.google.com/drive/folders/1SUB8Ue6wgpxZlyu7ptHy9cxXW41zvLux?usp=sharing	Vicki Greenberg		
Student prompts (single page)	Same as above, except on a single page (8.5x11) to post at each board.	https://www.canva.com/design/DAFJiQ4_ZbE/DTTv-smFVj-xB9PfSVpO5g/view?utm_content=DAFJiQ4_ZbE&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink	Korie Whiteman		
Student Self-Assessment Template	For Student Self-Assessment - add units/topics/subtopics	Formative - Self Assessment Rubric Template	Rachel Guempel		
Thin-Slicing Tasks Eureka Math Digital Resource	Thin-slicing Curricular Tasks	https://www.engageny.org/common-core-curriculum	Suggested by Kerri Zitar Added by Sasha Wise		
Thinking Classroom Student Survey	Google Form given to students to get their feedback on how BTC is working for their learning	https://docs.google.com/forms/d/17J9s_f19RUMlSYHRho6o08woQSCPv6Z4Wxdr6LVzpzY/edit?usp=sharing	created by Don Newman		
Video for how to give all students a gradebook in Google Classroom	How to take the gradebook and share with individual students using Google Classroom and importrange formula in Google Sheets	https://watch.screencastify.com/v/boeBStV8KFz8V5EekE59?fbclid=IwAR02865FDT5zDgBtuIaIZZfYBneJURuX0UDyvK6rrREt7Of2Y5UhveNZQAI	Nick Bianculli		
Virginia DOE Rich Mathematical Tasks	The VDOE Rich Mathematical Task Committee, composed of mathematics teacher leaders from across the Commonwealth, created mathematically rich tasks aligned to the 2016 Mathematics Standards of Learning.	https://www.google.com/url?q=https://www.doe.virginia.gov/teaching-learning-assessment/k-12-standards-instruction/mathematics/instructional-resources/rich-mathematical-task&sa=D&source=editors&ust=1691277386460166&usg=AOvVaw0V2HkEEHOQBeF-jDY4FmDu	Melanie Keenan		
Welcome to Our Thinking Classroom	A brief(ish) summary of what a Thinking Classroom looks like with an FAQ. (Save as a copy, and you can edit your own.)	https://www.canva.com/design/DAFHoPj4K-k/ip5Cw8pCLuoIeJ-HoQbxnA/view?utm_content=DAFHoPj4K-k&utm_campaign=designshare&utm_medium=link&utm_source=homepage_design_menu	Korie Whiteman	Here's a pink version:	https://www.canva.com/design/DAFHoPj4K-k/ip5Cw8pCLuoIeJ-HoQbxnA/view?utm_content=DAFHoPj4K-k&utm_campaign=designshare&utm_medium=link&utm_source=homepage_design_menu

Work Habits Rubric	Three rubrics for chapter 12 "What we choose to evaluate". These were created with high school students in mind. Feel free to copy and edit to fit your needs.	https://docs.google.com/presentation/d/1y6-ZY1AFJQ1z4b-KGrFOskYtKK5cmtvdCERsfYoyph0/copy	stefanie.frey@ccboe.net Feel free to contact me if you have suggestions for improvement.		
		https://drive.google.com/file/d/1g6nqjANfo5oTxR83bQzVnL7w97Ztiuab/view?usp=sharing	Copied from Trish Meixell above, just reformated for aesthetics by Jennifer Dyer		
poster about mathematical thinking	quote about why we learn math	https://www.postermywall.com/index.php/poster/view/7fe32e0b4b43552ac3606e39299a5e68?utm_source=eshare&utm_content=view_poster&utm_medium=link&utm_campaign=share	Vicki Greenberg		
Sample end of year survey	A sample survey to give to students at the end of the year	https://docs.google.com/forms/d/e/1FAIpQLSfvLGLLH2Mh937O0X8HEjAYM5htQMTIX-yWR-rKccYQInLhlw/viewform?usp=sf_link	Linus Lindroos		
Elementary Math Survey	a survey for the beginning and end of the year	https://drive.google.com/file/d/1nTtg09KJypOY24Ch9QDhwWXWRdVDLTUK/view?fbclid=IwAR2pucVURNfknwWDRoYCXol0d1tb39djsAFoXXxLZd2bOYQWivGhGiJO-R4	Tammy McMorrow		
Structures for Opening Up Questions	A collection of example task structures to lower the threshold and make higher ceilings for tasks. Includes WODB, Smudge Math, Compare/Contrast, Open Middle, Open Problems, and Parallel Problems, among others.	https://docs.google.com/presentation/d/1FL4JB3LRbpY5uhm3ERGMW_1JzXMg5NHhGIPE2XxKjXM/edit?usp=sharing	Michael Rubin (I've tried to give credit to examples taken from other sources. If you find one I missed please let me know by leaving a comment)		
Math 10 Course Outline	referred to at #BTCC23	https://docs.google.com/document/d/1GjZdJdxHxIHODR4wFB7lsVyG6owTtXBY9RUeKrsw4nc/template/preview	Michelle Muggridge/Joann Greenough		
Building Thinking Classroom Overview	referred to at #BTCC23 given to parents at Meet the Teacher	https://docs.google.com/document/d/120nmeK7On2Pv2BimJgk199Y0GRhFFX3wYF23c_Djf4U/template/preview	Michelle Muggridge/Joann Greenough		
Thinking Classroom FAQ	referred to at #BTCC23 given to parents at Meet the Teacher	https://docs.google.com/document/d/1SGsl4mI1JYPAe3Hm5m27XPENP7nVMN-gJC5qc7XpMpo/template/preview	Michelle Muggridge/Joann Greenough		
Meaningful Notes Template	Blank template for 4 quadrants with space for heading and CYU. Must download as Word Doc to format correctly.	https://docs.google.com/document/d/1SjBQdCmrrw3wfR2ahftN	Martha Savaria		
Random Grouping Cards	Cards have emjois and symbols to randomly group students.	https://drive.google.com/drive/folders/1nvsJFXC1WVGDd_VfFgDy5F6s7x2kJyVZ?fbclid=IwAR0g1tshdvyxTcAff8vytF0IGTQZ5k9Vtv6bvbMhj0ZnEOxsrU5_wZvPh48	Stephanie Riddle		
Lesson Plan Template for Thin Slicing	A lesson plan template that includes launch, place for teacher thinking, thin sliced questions, CYU, questions to ask students, and reflection. Some ideas generated from "5 Practices for Ochestrating Discussion"	https://docs.google.com/document/d/1iFP3XhQ5mIas6_IBRioT2PoX7Ns465uo5hMqESsl4es/edit?usp=sharing	Anna Colaric		
Student prompts to help verbalize thinking	This is a Google Drawing with sentence prompts (they are the same prompts that have been shared on this sheet, I just did a different configuartion). I sized it so it could be 24" wide to go on the top of each VNPS, but it still looks pretty good on 8x11 paper.	https://docs.google.com/drawings/d/1llktR9YGstM35WkPf6eXlETCOhlRFGhsW4jihZncUfM/edit?usp=sharing	Tracy Landreth		
Door Sign for Thinking Classrooms	Sign for your door that instructs visitors to give answers and a few suggestions on questions they might ask working students.	Door Sign	Karen Eden - edited from Trish Meixell's original with new graphics		
Lesson Plan Template- with Prompts	Lesson plan template. Original layout from Julia Anker that I modified.	3- BTC Lesson Plan Template with Prompts	Abigail Bates		
Lesson Plan Template- blank	Lesson plan template. Original layout from Julia Anker that I modified.	4- Blank Template BTC Lesson Plan	Abigail Bates		
New Notes Template	Based on Peter's newest update on the FB Live on 8/6/23 and the Think Thank Thunk podcast (ep 5).	New Notes Template	Abigail Bates		
Deck of cards	These cards have 5 different symbols to use for random grouping. I will use a random generator to determine which symbol to use each time. The individual posters for each symbol are included.	Random Group cards	Julia Styers		

Task	Description	Link to Task (include intro script if	Comments/Notes	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By
Math Before Bed Tasks	of concepts.	https://mathbeforebed.com/math-prompts/	K-3 options	Tammy McMorrow						
Math Images	Math images = great tasks	http://ntimages.weebly.com/photos.html	K-3 options	Tammy McMorrow						
Marian Small Open Tasks	BTC tasks	content/uploads/2016/10/PEIELEM.pdf	K-3 options	Tammy McMorrow						
(more)	BTC tasks	VWH6-z75Y10LbFU35/view?usp=sharing	K-3 options	Tammy McMorrow						
Small	could work for BTC	Differentiate-Mathematics-	K-3 options	Tammy McMorrow						
3 Act Tasks	Engaging math storytelling tasks	https://gfletchy.com/3-act-lessons/	K-3 options	Tammy McMorrow						
Tasks Library for K-6	One stop shop for digital math tas	sembl.app	K-6 Options	Bryce Boudreau						
Count to tell the number of objects.										
SPLAT	02/splat/?fbclid=IwAR0r6DUJ0dd	*numbers (circles). With a 'Splat', part of the*								
Activities	address skill: read, write, and	D9TeILq8EbQzRRCLZw2nL9Rk9BXdUXaUzy	Created for TEKS K.2B	Audrey Leppke						
Activities	address skill:recognize instantly	7Gikb_84VznsbXo9M8h-lcRAaQctB3A41H-	Created for TEKS K.2D	Audrey Leppke						
Compare numbers.										
Activities	address skill: Generate a set	pmX6Gj-	Created for TEKS K.2E	Audrey Leppke						
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.										
Activities	address skill: compose and	uylwUVE_dQa391xwU0aENvoTlPXhdoyyvHtu	Created for TEKS K.2I	Audrey Leppke						
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: model the action of joining to represent addition and the action of separating to represent subtraction	https://docs.google.com/document/d/12eWVt1SP0ehdzOaaV6xC0YMkmF3DTPhEOtKVDRXds4/edit?usp=sharing	Created for TEKS K.3A	Audrey Leppke						
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: solve word problems using objects and drawings to find sums up to 10 and differences within 10	https://docs.google.com/document/d/1hyWzFp4EIZvUYx3UlYgACHa_-u8z1zuOmQYw6yafm8/edit?usp=sharing	Created for TEKS K.3B	Audrey Leppke						
Work with numbers 11-19 to gain foundations for place value.										
Describe and compare measureable attributes.										
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference.	https://docs.google.com/document/d/1JUvhMCuiB87G68veXZ_zvRw73Jqj6NyAVvtzhWg6Kiw/edit?usp=sharing	Created for TEKS K.7B	Audrey Leppke						
Classify objects and count the number of objects in each category.										
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: collect, sort, and organize data into two or three categories;	https://docs.google.com/document/d/1ZhnvPKDt2Qkc-mxAMtDTfvPtSqFKR6jJTGPMXm_HHWQw/edit?usp=sharing	Created for TEKS K.8A	Audrey Leppke						
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: use data to create real-object graphs	https://docs.google.com/document/d/16l-_ICVvWjEPqJVwIilUH2bNKrMyhleTbNqGBWiQkuQ/edit?usp=sharing	Created for TEKS K.8B	Audrey Leppke						
Identify and describe shares (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).										
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: identify two-dimensional shapes, including circles, triangles, rectangles, and squares as special rectangles	https://docs.google.com/document/d/1_qDDfczFp-G_t2Wox0hFzYXmTCQRaseM1lb9dzfmKLw/edit?usp=sharing	Created for TEKS K.6A	Audrey Leppke						
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: identify three-dimensional solids, including cylinders, cones, spheres, and cubes, in the real world;	https://docs.google.com/document/d/1SK7oYE3OaHE-EP03HJemoEYqEK1lL9EANc3UkNRDltt0/edit?usp=sharing	Created for TEKS K.6B	Audrey Leppke						
Analyze, compare, create, and compose shapes.										
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: create two-dimensional shapes using a variety of materials and	https://docs.google.com/document/d/1SSjSGh0MiSGJ2PQL-tAbdUYcVhPJWwZ4O0PnhDySbFo/edit?usp=sharing	Created for TEKS K.6F	Audrey Leppke						

Task	Description	Link to Task (include intro script if	Comments/Notes	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By
Full Curriculum										
Teaching Through	Full 2nd Grade curriculum from Alicia Burdress	https://0902020e-01fe-4cfd-8c9d-	www.aliciaburdess.com some	Abby Bates						
Math Before Bed Tasks	These tasks cover a wide range of concepts.	**Math Prompts**	K-3 options	Tammy McMorrow						
Math Images	Math images = great tasks	http://ntimages.weebly.com/photos.html	K-3 options	Tammy McMorrow						
Marian Small Open Tasks	Open tasks could be modified for BTC tasks	content/uploads/2016/10/PEIELEM.pdf	K-3 options	Tammy McMorrow						
(more)	Open tasks could be modified for BTC tasks	VWH6-z75Y10LbFU35/view?usp=sharing	K-3 options	Tammy McMorrow						
Small	This book is full of tasks that could work for BTC	Differentiate-Mathematics-	K-3 options	Tammy McMorrow						
3 Act Tasks	Engaging math storytelling tasks	https://gfletchy.com/3-act-lessons/	K-3 options	Tammy McMorrow						
Tasks by category	Lots of tasks in a Sheet, organized by category	kKbA-	K-3 options	(created by Laura						
Tasks by category	Lots of tasks in a Doc, organized by category	6w7qcgllOrUnhBNdGNGwOhawDz9_E5AKeX	First Grade Sheet	(shared by						
Mix of NCT and Curricular	Tasks based on grade level, but not by standard	problem-solving	tasks in the Pre-K category	Nicole Medina						
Represent and solve problems involving addition and subtraction.										
Comparing Points	to decide how many points each person has	rds_docs/mathematics/2016/rich/k-2/1-2tc-	multiple answers	Virginia DOE						
Toy Cars	understanding of "some" and "two more"	rds_docs/mathematics/2016/rich/k-2/1-6-toy-	multiple answers	Virginia DOE						
20 Tickets	Find ways to combine numbers to equal 20.	nt-standards/1/OAA/1/tasks/1152	Part of IM, multiple answers	Nicole Medina						
Understand and apply properties of operations and the relationship between addition and subtraction.										
SPLAT	wAR0r6DUJ0ddBaE6XuFM22Q4RXm1XChQ-	*numbers (circles). With a 'Splat', part of the*								
Number Tasks	BplRW32GPB30ITEnwuqbXK9SeWgBnSyUuL0R		Open Ended Visuals	Berkely Everett						
Add and subtract within 20.										
Nature Walk	Students go on a nature walk and find different critters. They must decide how many of each based on the confines of "more" and must = 18.	https://www.doe.virginia.gov/testing/sol/standards_docs/mathematics/2016/rich/k-2/1-6-nature-walk-template.pdf	multiple answers	Kris Serven via Virginia DOE						
Make Ten	How many chikens and pigs COULD BE in the barn if there are ten animals?	https://docs.google.com/presentation/d/19CZEJG3NqB9QXkX-xhOFGYXFquIlAeDb0xk3drsrf7s/edit?usp=sharing		Faith Morrow - Lindale ISD						
Work with addition and subtraction equations.										
How Can They Be Equal?	Students use logic and attempt to make an equation with numbers 1-9 that will equal the same number.	https://www.doe.virginia.gov/testing/sol/standards_docs/mathematics/2016/rich/k-2/1-15-equal-task-template.pdf	Might use number tiles or cut up paper numbers to manipulate them quickly.	Kris Serven via Virginia DOE						
Extend the counting sequence.										
Find the Pattern!	Find the next three terms of a given number pattern.	page 155 in Building Thinking Classrooms in Mathematics by Peter Liljedahl	Thin-Sliced	Nicole Medina						
Open Number Line	Use the digits 1 to 9, at most one time each, place a digit in each box on the number line to make the number line true.	https://www.openmiddle.com/open-number-line/		Nicole Medina						
Understand place value.										
Same But Different	3 tens and 1 one....1 ten and 3 ones (base-ten blocks)	www.samebutdifferentmath.com	What is the same and what is different from each grouping? Intro to base ten blocks.	Gayane Hanyaloglu						
Use place-value understanding and properties of operations to add and subtract.										
The Very Hungry Caterpillar: Place Value (to 99)	How many things did the caterpillar eat?	https://tasks.illustrativemathematics.org/content-standards/1/OA/C/5/tasks/1150	Could use ten frames (as suggested) or write # of things caterpillar ate & post at each VNPS	Nicole Medina						
Measure lengths indirectly and by iterating length units.										
Non Standard Units 3 Act Task: Lego Slide	Which box is shortest? Longest? Estimate and say how you know.	https://mscastillosmath.com/2016/04/20/3-act-task-lego-slide/	Quick one	Nicole Medina						
Tell and write time.										
Represent and interpret data.										
Interpreting Data	Make a graph that shows a possible result of 7 students' favorite color.	https://www.openmiddle.com/interpreting-data/	Students may need a guide to draw the x & y axis	Nicole Medina						
Reason with shapes and their attributes.										
Draw & Name Shapes	Draw and name a shape that has the following characteristics.	https://www.openmiddle.com/drawing-and-naming-shapes-by-sides/		Nicole Medina						
Shadow Activity	The picture shows some shadows cast by solid (3D) objects as well as some flat (2D) shapes. Describe 3D objects that could have made these shadows.	https://aiminghigh.aimssec.ac.za/shadows-activity/	Maybe use after teaching 2D & 3D shapes	Nicole Medina						
Money										
Do you have enough money	3 Act Task - You want to buy a toy, but do you have enough money?	http://robertkaplinsky.com/work/enough-money/	US Coins - Students need to have knowledge of coins and their worth before task.	Nicole Medina						
Variety of coin tasks	this is a variety of coin tasks	https://docs.google.com/presentation/d/1c0CUJJwFWVSX1NwK4dE5VCGpuYzLmmN4doOslhaffHA/edit#slide=id.g212217e060a_0_79		Heidi Schnabel						

Name of Task	Description	Link to Task (include intro script if possibe)	Comments/Notes	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By
Full Curriculum										
Teaching Through Problems	Full 2nd Grade curriculum from Alicia Burdress	https://0902020e-01fe-4cfd-8c9d-	www.aliciaburdess.com	Abby Bates						
Math Before Bed Tasks	These tasks cover a wide range of concepts.	**https://mathbeforebed.com/math-prompts/**	K-3 options	Tammy McMorrow						
Math Images	Math images = great tasks	http://mtimages.weebly.com/photos.html	K-3 options	Tammy McMorrow						
Marian Small Open Tasks	Open tasks could be modified for BTC tasks	content/uploads/2016/10/PEIELEM.pdf	K-3 options	Tammy McMorrow						
(more)	Open tasks could be modified for BTC tasks	z75Y10LbFU35/view?usp=sharing	K-3 options	Tammy McMorrow						
Small	This book is full of tasks that could work for BTC	Mathematics-Instruction/dp/0807753130	K-3 options	Tammy McMorrow						
3 Act Tasks	Engaging math storytelling tasks	https://gfletchy.com/3-act-lessons/	K-3 options	Tammy McMorrow						
Add and subtract within 20.										
SPLAT	AR0r6DUJ0ddBaE6XuFM22Q4RXm1XChQ-	*With a "Splat", part of the representation is hidden, and*								
Work with equal groups of objects to gain foundations for multiplication.										
Understand place value.										
Use place-value understanding and properties of operations to add and subtract.										
Measure and estimate lengths in standard units.										
Relate addition and subtraction to length.										
Work with time and money.										
Represent and interpret data.										
Reason with shapes and their attributes.										

Task	Description	Link to Task (include intro script if possibe)	Comments/Notes	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By
Full Curriculum Resources										
Teaching Through Problems Worth Solving	Full 3rd Grade curriculum from Alicia Burdress (Alberta, Canada). See correlation to CCSS topics HERE.	https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_a85521d1360d40f99d9680e1265a5c31.pdf	www.aliciaburdess.com	Abby Bates						
Curriculum Map & Tasks	Full year of problem-based curriculum tasks from Emergent Math.	https://docs.google.com/document/d/1DdLXnNVkpBUagQL7VAztsQuixrFsiOhaf8marytgZxE/edit		Abby Bates						
Math Before Bed Tasks	These tasks cover a wide range of concepts.	**Math Prompts**	K-3 options	Tammy McMorrow						
Math Images	Math images = great tasks	http://mtimages.weebly.com/photos.html	K-3 options	Tammy McMorrow						
Marian Small Open Tasks	Open tasks could be modified for BTC tasks	http://www.onetwointrinity.ca/wp-content/uploads/2016/10/PEIELEM.pdf	K-3 options	Tammy McMorrow						
Marian Small Open Tasks (more)	Open tasks could be modified for BTC tasks	https://drive.google.com/file/d/13MHX6CsaiITCyckKVWH6-z75Y10LbFU35/view?usp=sharing	K-3 options	Tammy McMorrow						
Good Questions by Marian Small	This book is full of tasks that could work for BTC	https://www.amazon.com/Good-Questions-Differentiate-Mathematics-Instruction/dp/080775313 0	K-3 options	Tammy McMorrow						
3 Act Tasks	Engaging math storytelling tasks	https://gfletchy.com/3-act-lessons/	K-3 options	Tammy McMorrow						
Beverely Everett Visualizing Mat	**Numeracy Talks, Math Images, Visual Tasks**	**https://berkeleyeverett.com/**	**K - 6 options**	**Tina Bergman**						
Represent and solve problems involving multiplication and division.										
How many airplane gummies are t	Beginning multiplication	What is a product? What is a quotient? https://docs.goog	K-4 options	Tina Bergman						
Understand properties of multiplication and the relationship between multiplication and division.										
Multiply and divide within 100.										
Stone Soup	Students have to multiply to figure out amounts of ingredients for a recipe.	https://www.insidemathematics.org/sites/default/files/assets/inside-problem-solving/inside_problem_solving_measuring_up_levela_student_2021.pdf								
Solve problems involving the four operations, and identify and explain patterns in arithmetic.										
SPLAT	https://stevewyborney.com/2017/02/splat/?fbclid=IwAR0r6DUJ0ddBaE6XuFM22Q4RXm1XChQ-zcLBJyy-NqyV1brzE6deo84qeU		*Students are shown representations of numbers (circles). With a 'Splat', part of the representation is hidden, and students are asked how many are still shown and asked to reason through how many are hidden. - explaination by instructure.com*							
Use place-value understanding and properties of operations to perform multi-digit arithmetic.										
Counting Collections	Estimation and adding									
Develop understanding of fractions as numbers.										
The Unusual Baker	Students examine cakes cut into different pieces and determine the size of each piece.	https://docs.google.com/document/d/1nyAX-_TlkHESomk65iuRidDNXj7E3CJnkGhJvohkdI/edit	Lesson plan/script from Kirk Keating @KSquared_Math. Original task from NCTM. There is also a Desmos version HERE.	Abby Bates						
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.										
Represent and interpret data.										
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.										
How many Rows? How many in each row?	Develop area concepts through a dice game.	https://www.youcubed.org/tasks/many-rows-many-row/								
Reason with shapes and their attributes.										
Guess my rule: polygon sort	Students are presented a venn diagram and identify the	https://mathathome.mathlearningcenter.org/activity/1704.		Morgan Brown						

Task	Description	Link to Task (include intro script if possibe)	Comments/Notes
Full Curriculum Resources			
Teaching Through Problems Worth Solving	Full 3rd Grade curriculum from Alicia Burdress (Alberta, Canada). See correlation to CCSS topics HERE. Many problems still great for 4th grade students as well.	https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_a85521d1360d40f99d96f0e1265a5c31.pdf	www.aliciaburdess.com
Curriculum Map & Tasks	Full year of problem-based curriculum tasks from Emergent Math.	https://docs.google.com/document/d/1HGVR3I_ag-xf3XXlKRrq_In4rjppIWuI_MTZFd9hmYo/edit	
OPEN MIDDLE SLIDES K-HS		https://docs.google.com/document/d/1vqdixEiccYJhe8LcDiIyNmtlmZbsG9Nd_jR8TgRFonA/edit	
NRICH	**https://nrich.maths.org/**		
Use the four operations with whole numbers to solve problems.	Full year of problem-based curriculum tasks from Emergent Math.		
Shopping Spree	Spending given amounts (adding/subtracting with decimals	https://docs.google.com/presentation/d/1QLaZv-l7jthfnai8zYUNdyloYWuC4jCB4rerLBvHHOY/copy	
Slim Cans	3 Act Task- Thin slicing embeded in this lesson to build multi digit multiplication	\	
Krispy Kreme Extreme	2 by 2 digit multiplication	https://gfletchy.com/krispy-kreme-me/	
SeeSaw	Intro to Division great task	https://teacher.desmos.com/activitybuilder/custom/5f5f5cd2a65d830ca17ddd79	Desmos (orginially Graham Fletcher 3 Act Task)
Gain familiarity with factors and multiples.			
Number Visuals	Students find patterns in the numbers and connect it to multiples and factoring	https://www.youcubed.org/wp-content/uploads/2017/07/WIM-Day-2-gr-3-4-vF.pdf	If you get the actual book with this lesson there is a game and extension that goes with this lesson. It is awesome Book here - https://amzn.to/3VKhvWh

Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link
Abby Bates					
Sasha Wise					
Christine Rowlan					
Christine Rowlan					

Added By	@							

Generate and analyze patterns.			
Use place-value understanding and properties of operations to perform multi-digit arithmetic.			
Exploading Dots	Builds visual understanding of the base ten number system and using a place value chart but for some reason this way grabs my 4th graders!! Especially when you get to the division levels!	Exploding Dots	Explore all worlds!!
3 Act Task for Rounding		Arcade 3 act task, round and add - https://mscastillosmath.com/2018/02/25/3-act-the-arcade/	It is hard to make rounding fun..but this one was great
Extend understanding of fraction equivalence and ordering.			
The Unusual Baker	Students examine cakes cut into different pieces and determine the size of each piece.	Thinking Classroom Task - The Unusual Baker	Lesson plan/script from Kirk Keating @KSquared_Math. Original task from NCTM. There is also a Desmos version HERE.
Dividing Shapes - full lesson	This includes the Unusual Baker as the thin slice, but also has notes to future self (revised for 23/34 changes), cyu (mild medium and spicy) and test questions	Dividing Shapes Lesson Link	
Comparing Fractions and Equ	Full lesson including notes (revised for 23/34 changes), CYU, thin slice progression (based on IM grade 4 Unit 2 lessons) study guide questions, test questions and retest questions.	Equivalent Fractions - full lesson link	

Christine Rowlan					
Christine Rowlan					
Abby Bates					
Deborah Harper					
Deborah Harper					

Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.			
SPLAT	https://stevewyborney.com/2017/02/splat/?fbclid=IwAR0r6DUJ0ddBaE6XuFM22Q4RXm1XChQ-zcLBJvy-NqyV1brzE6Ideo84qeU	*Students are shown representations of numbers (circles). With a 'Splat', part of the representation is hidden, and students are asked how many are still shown and asked to reason through how many are hidden. - explaination by instructure.com*	
Understand decimal notation for fractions, and compare decimal fractions.			
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.			
Represent and interpret data.			
Geometric measurement: understand concepts of angle and measure angles.			
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.			

Task	Description	Link to Task (include intro script if possible)	Comments/Notes	Added By	Notes Template-Topic	Notes Template- Link	Added By	Rubric-Topic/Description	Rubric- Link	Added By
Full Curriculum Resources										
Curriculum Map & Tasks	Full year of problem-based curriculum tasks from Emergent Math.	https://docs.google.com/document/d/1JtfDrZTlu0zl4uayJDJP-R5JnXYaqleCP-dH6thQ8Uw/edit		Abby Bates						
MARS Tasks	Multiple Tasks from different strands	https://www.scoe.org/files/mars-grade5.pdf		Kari Johnson						
Tracey Bean Year-At-A-Glance BTC (using enVision curriculum)		https://docs.google.com/document/d/1lw8PdLhRH-e-gK-rj5gTYmY5LneDchj5vtoLhx9lPFA/edit?usp=sharing		Tracey Bean						
Operations and Thinking (grouping symbols, patterns) 5.OA										
Order of Operations	Link contains multiple ideas for rich tasks and my thin slicing lessons for subtopics (FYI my district uses enVision so some of this uses those curriculum resources)	https://docs.google.com/document/d/14DVZdr4l79rml4PTTN8aFDx0LYXm1QdSfP75OKvShHc/edit?usp=sharing		Tracey Bean						
Order of Operations	How should the money be split? a task to introduce order of operations	Order of Operations Intro		Christine Woodruff						
Order of Operations	Thin-slicing introduction	https://docs.google.com/document/d/1Yre2M_BMrUp0iCn_8O3VP3e_ZhLVJK8iwIdmL1qiCq0/copy								
Number and Operations in Base Ten 5.NBT1-4										
The Deca Tree	How many leaves are left on the tree? A problem from NRICH	https://nrich.maths.org/2006								
Decimal Clothesline	https://docs.google.com/document/d/14DVZdr4l79rml4PTTN8aFDx0LYXm1QdSfP75OKvShHc/edit?usp=sharing	https://docs.google.com/document/d/1YRh701GWUJQuMRnzRTjC0eFNNGU0ETdHvULW0xpK_8/edit?usp=sharing		Susie Halley						
Exponents and Powers of 10 Thin Slice	Students discover how exponents and powers of ten work.	https://docs.google.com/document/d/1UBz6KlklXhGuCluXk4tiyTv2kCQNMtuMJ8XlNabHk/edit?usp=sharing	5.NBT.1 and 5.NBT.2	Heather Rigatti						
Number and Operations in Base Ten 5.NBT.5-7										
BK Meal Deal 3-Act Task (Lesson Sequence addressing 5.NBT.7)	Link contains a lesson sequence that begins by asking students if buying items separately or with the meal deal is a better buy. This addresses adding and subtracting decimals, but extends into other operations and modeling. Lesson sequence includes **thin slicing**, an IM Task, 3 **Reads** (w/verbal launch), and another rich task called Shopping Spree (found here elsewhere).			Chelsea McClellan						
Target Practice	Rich task where students use their knowledge of whole number division with 1-digit divisors to get a quotient as close as possible to the target.	https://drive.google.com/file/d/1K7eNt8Y4JTg2MldBdVq6QWFWaD_UzJdQ/view?usp=sharing		Susie Halley						
Multiply Decimals and Whole Numbers Thin Slice	Students discover ways to multiply with whole numbers and decimals	https://docs.google.com/document/d/1cd53LLcPlTOivgjUFBuTbKbf_9NGpAMHv3bZZDknxjA/edit?usp=share_link	5.NBT.7 (part of it)	Heather Rigatti						
Thin Slicing - Lesson plans that include a couple different examples of it	Lesson Plans for decimals	https://docs.google.com/document/d/17vPhyQNy5XQwqVj6aXqRHDDriu1h3nCGhlI9J0RuGRQ/edit		Amy Alger						
Thin Slicing - place value	Lesson Plans with whole and decimal place value	https://docs.google.com/document/d/13j4m9AGnc8Puh_ZVhUju6A-WMhE-g_rNfp2p4qF0L6Y/edit	Can't access it	Amy Alger						
Numbers and Operations - Fractions 5.NF										
The Unusual Baker	Students examine cakes cut into different pieces and determine the size of each piece.	In the book								
Add & Subtract Fractions	Link contains multiple ideas for rich tasks and my thin slicing lessons for subtopics (FYI my district uses enVision so some of this uses those curriculum resources)	k		Tracey Bean	*https://docs.google.com/document/d/13I_VxMQKmfNvtciP1ZICvHlmu3p_W_uqM85wjoHNVPg/copy*					
Thin Slicing GCF	Before teaching fractions, do some GCF & LCM number sense work (helps with simplifying fractions & finding common denominators.)	https://drive.google.com/file/d/1P7kYrSTob_jGk1ZeVEVwVhaFRsO0FPzk/view?usp=sharing https://drive.google.com/file/d/1dx_S5wLsPNuyHI1V1pN2FlJBZ3YiNo6J/view?usp=sharin		Tracey Bean	These links are broken and this row can be deleted by admin. See new links below.					
Multiplying Fractions	Link contains multiple ideas for rich tasks and my thin slicing lessons for subtopics (FYI my district uses enVision so some of this uses those curriculum resources)	https://docs.google.com/document/d/1YNLpJtsU_YcGHi7GdTB235gvkhe_jb7sdDaGUJr9Fdo/copy		Tracey Bean						
Dividing Fractions	_	https://docs.google.com/document/d/1k6-KUqd5Qj9frg9wN0UKpU4YZQOKDQ4yPcXXd5bPaYw/copy		Tracey Bean						
All things fractions	link contains many tasks for everything from unit fractions to operations with fractions	https://fractionslearningpathways.ca/	I have used many of the thin-sliced tasks with grades 4-6	Christine Woodruff						
https://fractionslearningpathways.ca/	Thin Slicing set with Meaningful Notes	https://docs.google.com/document/d/1HBD31XlT0G_LOiLk2eqry7ELW-QKBS8u-GSw6bYUtlo/edit	The notes are in alignment with Peter's zoom session in August of 2022	Chelsea McClellan						
Thin Sicing GCF	Before teaching fractions, do some GCF & LCM number sense work (helps with simplifying fractions & finding common denominators.)	https://docs.google.com/document/d/1XUdtRNqZCO0-msLyqu1VscTToy-hKmUlRYyKFTQWjs/edit?usp=share_link		Tracey Bean						
Think Slicing LCM	Before teaching fractions, do some GCF & LCM number sense work (helps with simplifying fractions & finding common denominators.)	https://docs.google.com/document/d/1LUkBNwtevQkhuw34dsNn-rPdUbKe9C1LVdJXJSIFsYA/edit?usp=share_link		Tracey Bean						
Multiply and Divide Fractions - conceptual word problems	Thin slice, cyu, notes (revised for 23/34 changes), and test questions	Full lesson - multiply and divide fractions conceptual		Deborah Harper						
Thin Slicing - Multiply fraction and whole number	Word Problems	https://docs.google.com/document/d/1Vb6505Dd7-ZytVb2cYDcZ2cS71-fY2N7PiJnldwzSMU/edit		Amy Alger						
Measurement & Data 5.MD										
Volume	Link contains multiple ideas for rich tasks and my thin slicing lessons for subtopics (FYI my district uses enVision so some of this uses those curriculum resources)	https://docs.google.com/document/d/1qmP819lCGSPlVox8aVxdB7uiN_s6lFJyq7p0vD9wDDk/edit?usp=sharing		Tracey Bean						
Line Plots	Most of this is using our enVision curriculum - sorry!	https://docs.google.com/document/d/1mvHEI0vwYP9ogzhSUZUyYNVlquQxJAERARXeT89ivy4/edit?usp=sharing		Tracey Bean						
Geometry 5.G										

Timestamp	Grade Level	Topic	Type of Resource	Task	Description	Link to Task (include intro script if possible)	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By	Comments/Notes
				Full Curriculum Resources										
	6th grade	Full Year Resources	Full Year	Curriculum Map & Tasks	Full year of problem-based curriculum tasks from	https://docs.google.com/document/d/1_3f-	Abby Bates							
	6th grade	Full Year Resources	Full Year	Increasingly Difficult	Multiple grade levels, multiple skills/standards,	https://taylorda01.weebly.com/increasingly-difficult-	I hope this is ok to							
	6th grade	Full Year Resources	Full Year	Problem-Based Learning	Grade 6 Tasks from various sites separated into	https://docs.google.com/document/d/1_3f-	becca Flora							
	6th grade	Full Year Resources	Full Year	Rources from Jo Morgan	school mathematics	Resourceaholic								
	6th grade	Full Year Resources	Full Year		Multiple Tasks from different strands	https://www.scoe.org/files/mars-grade6.pdf	@mathsjem							
	6th grade	Full Year Resources	Full Year	Year in Review			Julie Pottinger							
				Ratios, Rates, and Percents										
	6th grade	Ratios, Rates, and		Super Bear from Dan Meyer	How many gummy bears equals one super bear?		Nathan Kraft							
	6th grade	Ratios, Rates, and		Clothesline Math from	Use a clothesline to place numbers on a number	https://kristenacosta.com/clotheslines/	Nathan Kraft							
	6th grade	Ratios, Rates, and		Mullet Ratio from Matt	What is the perfect mullet ratio (business	Here are Google slides for the lesson, but the links will	Nathan Kraft							
	6th grade			Fast Clapper from Nathan	Will he beat the record?	https://tapintoteenminds.com/3act-math/fast-clapper/	Nathan Kraft							
	6th grade			Let It Flow from Graham	How long will it take for the bottle to empty?	https://gfletchy.com/let-it-flow/	Nathan Kraft							
	6th grade			Rope Jumper from Graham	How many times will she jump rope in 30	https://gfletchy.com/rope-jumper/	Nathan Kraft							
	6th grade			Nana's Paint Mix-Up from	Is it possible to fix the mix-up?	https://www.101qs.com/2841-nanas-paint-mixup	Nathan Kraft							
	6th grade			Nana's Chocolate Milk from	Can the chocolate milk be fixed?	http://threeacts.mrmeyer.com/nana/	Nathan Kraft							
	6th grade			Partial Product from Dan	How much does it cost?	https://www.aliciaburdess.com/_files/ugd/22cf00_171e2	Nathan Kraft							
	6th grade			12 Cookies from Geri	How many cookies does everyone get?		Nathan Kraft							
	6th grade			Fractions/Decimals/Percents	see p.105	https://www.aliciaburdess.com/_files/ugd/22cf00_171e2	Nathan Kraft							
	6th grade			Security Cameras by		https://www.map.mathshell.org/download.php?fileid=15	Nathan Kraft							
	6th grade			Sharing Costs by		https://www.map.mathshell.org/download.php?fileid=15	Nathan Kraft							
	6th grade			What's a Fair Living Wage?	Each student gets a card describing a family and	https://resources.corwin.com/tmsj-highschool/student-	Julianna Messineo							
	6th grade			Shirt Sale	Students use reasoning with percents	http://tasks.illustrativemathematics.org/content-standards/6/RP/A/3/tasks/54	Aviva Markowitz							
	6th grade			Exam Scores	Students use reasoning with percents	https://tasks.illustrativemathematics.org/content-standards/6/RP/A/3/tasks/1982	Aviva Markowitz							
	6th grade			Lunchtime Activities	Fractions of a number and percent of a number	https://nzmaths.co.nz/resource/lunchtime-activities?fbclid=IwAR1wCKi5qP2mNJqJ2ZFq0ORvXdeox0YnMGVnqQ39Nhs-b3Ilv8HJ6RCvUJC_0	Sapna Sharma							
	6th grade			Turning Green	Equivalent Ratios	https://access.openupresources.org/curricula/our6-8math/en/grade-6/unit-2/lesson-4/index.html#activity-2	Kristen Leiker							
	6th grade			dime thieves	weight to value ratios of coins	https://danmeyer.substack.com/p/how-to-ruin-a-great-math-problem?utm_source=profile&utm_medium=reader2								
	6th grade			Percents full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full Lesson Link	Deborah Harper							
	6th grade			Proportional Thinking (Ratios) full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full Lesson Link	Deborah Harper							
	6th grade			Rates full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full Lesson Link	Deborah Harper							
				Operations with Fractions and Decimals, Order of Operations, Exponents										
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Four Fours	Use Four 4's to make the numbers 1-20. Examples: 1 = (4/4)*(4/4), 2 = (4/4)+(4/4), 3 = (4+4+4)/4, 4 = 4 + (4-4)*4	https://www.gleammath.com/post/the-four-fours	Nathan Kraft							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Foxy Fives from Fawn Nguyen	Use five numbers to create new expressions.	https://www.fawnnguyen.com/teach/foxy-fives-cuz-its-better-than-four-fours?rq=foxy%20fives	Nathan Kraft							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		5-4-3-2-1 Challenge from Sarah Carter	How many expressions can you create?	https://mathequalslove.net/?s=5-4-3-2-1+Challenge	Nathan Kraft							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Twos to Nines Challenge from Sarah Carter	How many expressions can you create?	https://mathequalslove.net/twos-to-nines-challenges/	Nathan Kraft							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Decimal Operations Math Menu from Dave Martin		https://docs.google.com/document/d/1oX-12oIHU0-FIET7ogTcA7fHX39FT6haMyi_bM0vacc/edit	Nathan Kraft							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Route Product from nRich	Which route gives the smallest/greatest product?	https://nrich.maths.org/5632	Nathan Kraft							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Checkerboard from Rina Zazkis	How many squares?	https://www.aliciaburdess.com/_files/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf jump tp page 70. Title is Chckerboard	Nathan Kraft							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Amazing Offer	Which deal is better?	https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf	Nathan Kraft	**********						
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Smallest and Largest from Fawn Nguyen			Nathan Kraft							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Adding and Subtracting Decimals, Thin-Slicing from Nathan Kraft	This uses the same format as seen in Open Middle.	https://docs.google.com/document/d/1tXv9DRRuyeEqR9xgLiYqPeWN_kUHIG16mlIAonH1Qbl/edit?usp=sharing	Nathan Kraft							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Thin slicing dividing fractions	attached link is for multiplying decimals	https://docs.google.com/document/d/14bOK8XI2Q1-SDyrUoMz5NmWLwtNwhiaUACUX5MT8V00/edit?usp=sharing	Noelle Borchardt							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Penny A Day	Introduction to exponents and exponential notation	https://tapintoteenminds.com/3act-math/penny-a-day/	Heidi Warrington							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Order of Operations with 24	Writing as many numeric expressions as possible (using order of operations) to get 24	https://www.openmiddle.com/order-of-operations/	Heidi Warrington							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Order of Operations	Make the largest number possible by putting the numbers 0 - 9 into boxes in a given expression	https://www.openmiddle.com/order-of-operations-2/	Heidi Warrington							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Shopping Spree	Spending given amounts (adding/subtracting with decimals	https://docs.google.com/presentation/d/1QLaZv-f7jtnfna8zYUNdyksYWuC4CB4renLByHH0Y/copy	Jennifer Lunsford							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Order of Operations thin slicing	A google form with 15 problems in a thin-slicing format; This link is set to anyone with the link can edit, so that teachers can make a copy of the form for their own selves. Try not to edit the actual copy.	https://docs.google.com/forms/d/1Fc04yI4Mo7htaok9kubEFNTJ1TxGQZrRJb62Q3BDd60/edit?usp=sharing	Lisa Yamagata	**********						
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Order of Operations/ Equivalent Expressions WODB	Each row has 3 equivalent expressions and one that's not. Students figure out which one doesn't belong. Answer key included; Expressions contain factoring, distributive property, exponents but there's no negative numbers, fractions, or variables.	https://docs.google.com/document/d/1_6ZsjAr4s7fm5EN0f3Drs9EwltqZ4uC_gh_u-fMaFmE/edit?usp=sharing	Julianna Messineo	**********						
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Order of Operations Thin Slicing Slides	20 basic, same three number, two different operations, with parentheses but no exponents	https://docs.google.com/presentation/d/11GetSzpO60VcXUduYoSZML2zcplXpDOQz-0AbwylPCw/copy	Jon Overboe Jon, if you change the end of the URL from the word "edit" to the end to "copy", then it will force the user to make a copy. - Rebecca							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Special Ops-Order of Operations	Task Cards for six Order of Operations problems. Roles switch for each task.	https://docs.google.com/presentation/d/1cHJWKtJg8kjvJA-OJQXJGIvemyFOPCwm4_XXtZfpF3w/copy	Jon Overboe							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Bridget's Burgers	A fraction to decimals activity that also practices adding and multiplying with decimals	https://docs.google.com/presentation/d/18WDi47qhLQOhF6Ui38Lx_2y1MI6K4vb4/edit?usp=sharing&ouid=105734758427624447145&rtpof=true&sd=true	Bridget Richard							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Adding and subtracting (and comparing) decimals in context	practice adding and subtracting decimals, starting with money, then moving to more difficult decimals	https://docs.google.com/presentation/d/19NIPnnqf_hB327L31Ddp6nXX2Gt_JU1dMMYpQCZbg6o/copy	Adina R							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		adding, subtracting and multiplying fractions thin-slicing review	progressive review of adding, subtracting and multiplying fractions (I printed and sliced the papers to hand groups one chunk at a time); Randomly assign groups Cut out the six Special Ops Tasks for students to take to VNPS one task at a time. Roles for each task are indicated on Task Cards.	https://docs.xgoogle.com/document/d/1VlUcog3bZN3ZtRBVrz4kv6uIwXBQUt4UDVyfxVDbvEw/copy	Stephanie Ruopoli						The rules have changed.	
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Decimal Division Tasks	Using PV chart to learn about dividing decimal numbers, connecting to the long division algorithm	https://docs.google.com/document/d/1GUFBXQ2quelNFo4YTKeSl44JS08mWA5cFIFSF7MOhko/copy	Bridget Adam							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Dividing Whole Numbers and Fractions	Tasks to see and verbalize division of fractions and whole numbers	https://docs.google.com/document/d/1czc7Pp9oWRZmbKLmQVpdgcUIIfkrB1kJAJ8MF55vvU/copy	Bridget Adam							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Verbalizing Division	Tasks to get students to see the various ways we can understand and read division situations	https://docs.google.com/document/d/1u8E0soXP8hPHpq1h28X8eTvbtQ7LBRlcwS3e6Loy9k0/copy	Bridget Adam							
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Adding Fractions - The unusual baker	Saw this on the FB page from someone else. originally an NCTM task?	https://mathigon.org/polypad/embed/KXAW2SBYlocOCQ?fbclid=IwAR0ICVqQBT2yWX5-5xRJ62P3ZroNpb8ckU7Ur-yXMQaO1VL_NtH9cdztqBE								
	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents		Converting Fractions to Percent	Online puzzles that encourage students to create equivalent fractions that corespond to common percents	https://www.transum.org/Maths/Exercise/Express_As_A_Percentage_Puzzle.asp	Colleen MacDougall							
				Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)										
	6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)		Clothesline Math from Kristen Acosta	Use a clothesline to place numbers on a number line.	https://kristenacosta.com/clotheslines/	Nathan Kraft							

6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)	Comparing and ordering integers	TPT free activity "Find someone who"... questions could also be used on their own for thin slicing; I would add, "explain how you know your answer is correct" for #1. #2 has two -3, I would make one positive and add a negative to one more number. #4 I would say exactly halfway between...I am changing it to say Point A is on the number line halfway between -9 and 7. Point B is halfway between point A and -7. What is point B?	https://www.teacherspayteachers.com/Product/Comparing-Ordering-Integers-Find-Someone-Who-3679809?st=9eb507167bf62831448f32e0876c0f5a	Ashley Lipka
6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)	Converting a Fraction to a Decimal by Owen Kaplinsky	Write an equation comparing a fraction and decimal.	https://docs.google.com/document/d/1oX-12oIHU0-FIET7ogTcA7fHX39FT6haMyj_bM0vacc/edit	Nathan Kraft
6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)	Comparing Fractions on a Number Line from Graham Fletcher, Bowen Kerins, and Kate Nowak	Place the fractions on a number line.	https://www.openmiddle.com/comparing-and-identifying-fractions-on-a-number-line/	Nathan Kraft
6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)	Unusual Calculator	Adding and subtracting integers	https://docs.google.com/presentation/d/1BFw3OuC8dBlvqxhRPJM79BHXicZ2_O8v1QPV3bFD54/copy	
6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)	Integer War	Use to compare positive/negative numbers; Let students think of the significance of the "new rules".	https://docs.google.com/presentation/d/1OeNqpksvjK7KEfrnnmb-c9Hb47K2q9xmAp4qWdkUED4/copy	T. Swain
6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)	Howard County Public School System, The Number System	Some great tasks are linked on this page	Link	
6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)	Downside Up	Find differences between integers (both positive and negative) Describe the magnitude of positive and negative integers using absolute value	https://www.citizenmath.com/lessons/downside-up	
		Greatest Common Factor, Least Common Multiple			
6th grade	Greatest Common Factor, Least Common Multiple	Tax Man (Tax Collector) from Peter Liljedahl	Can you beat the tax collector? While traditionally thought of as a non-curricular task, I believe this is a good task that helps students recall what factors are.	https://www.peterliljedahl.com/teachers/good-problem#:~:text=tax%20man%20is%20played%20like%20this	Nathan Kraft
6th grade	Greatest Common Factor, Least Common Multiple	Hot Dogs from Robert Kaplinsky	How many hot dog and hot dog bun packages should he buy?	https://robertkaplinsky.com/work/how-many-hot-dogs-and-buns-should-he-buy/	Nathan Kraft
6th grade	Greatest Common Factor, Least Common Multiple	Geared Up from Graham Fletcher	How many times must each wheel turn to make all of the dots line up again?	https://gfletchy.com/geared-up/.	Nathan Kraft
6th grade	Greatest Common Factor, Least Common Multiple	Prime Climb Color Chart from Dan Finkel	Explore factors	https://mathforlove.com/lesson/prime-climb-color-chart/	Nathan Kraft
6th grade	Greatest Common Factor, Least Common Multiple	Factors and Multiples Puzzle from nRich	Explore factors, multiples, prime numbers, square numbers, etc.	https://nrich.maths.org/5448	Nathan Kraft
6th grade	Greatest Common Factor, Least Common Multiple	Counting Factors from Nat Banning	How many numbers from 1-100 have 1 factor? 2 factors, 3 factors?	http://natbanting.com/counting-factors-with-grade-78s/	Nathan Kraft
6th grade	Greatest Common Factor, Least Common Multiple	Prime Climb Color Chart from Dan Finkel	Ask students for patterns or what they notice/wonder. Good for divisibility, prime numbers, factors and multiples.	https://drive.google.com/file/d/18t_ugSYEuCX1BE_VqaHpzsEpqxOQGEE/view?usp=sharing	Alicia Williams
6th grade	Greatest Common Factor, Least Common Multiple	Writing Equivalent Expressions	Rewrite a number as many different ways as you can as a product of factors. Includes script, task progression, consolidation, check your understanding, and solutions	https://docs.google.com/document/d/1-JYT9k9hExc0xU9OG8sn_F04C5WE8qAZvhOg7793tGo/edit?usp=sharing	Julianna Messineo
6th grade	Greatest Common Factor, Least Common Multiple	Prime Time Game	Game with 1-100 chart... Modify rules to have students draw a card from pile (2 to 10, and 1 Ace for 11). Modify to highlight multiples of the number EXCEPT for the number itself. Have students look for patterns. (Sieve of Eratosthenes will be created when all numbers used).	https://www.youcubed.org/tasks/prime-time/	L. Stevens
		Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)			
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	Stacking Cups from Al Overwijk	How many cups to make a Mr. O? While this was geared to high school students, I do believe you could tailor this to younger grades.	http://slamdunkmath.blogspot.com/2014/05/open-strategy-cup-stacking.html	Nathan Kraft
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	Writing algebraic expressions in context	Moves students from writing numerical expressions to algebraic ones in a nice progression. Check out the practice problems in the linked lesson plan for check your understanding questions	https://curriculum.illustrativemathematics.org/MS/teachers/1/6/6/index.html	Anna Blinstein
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	Combining Like Terms Thin Slicing	Use hamburgers, fries and drinks to learn about basic CLT.	https://docs.google.com/presentation/d/126GGxFu7g8LFNph8Xc7U96F1D7q8qC8JTHHKLwyS0Dg/edit?usp=sharing	Alicia Williams
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	6.EE. 3. 4 Generating and Identifying Equivalent Expressions	Thin Sliced Lesson with Launch, sequence of problems, and CYU (mild, med, spicy)		Chelsea McClellan (some content adapted from Alicia Williams and Desmos
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	Writing expressions with exponents and evaluating expressions	Thin slicing; Modified from: https://taylorda01.weebly.com/increasingly-difficult-questions.html?fbclid=IwAR3UzL6YiHG6NUFl4xDOruLtRnrWpwLTN3X5umW_Ej_g8tgCWoG_wW4g7E	https://docs.google.com/document/d/1xzl-eXKiEprk9shY_t7iIPKymVaY7O-fSKSs7x8TLLw/edit	Alicia Williams
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	Introduction to Inequalities	Thin slicing	https://drive.google.com/file/d/1ZG4AESFUkWcIUEHQ-uHJMRzDLlRzFQ3J/view?usp=sharing	Jennifer Carter
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	Addition Equations	Thin Slicing	https://docs.google.com/presentation/d/10P5OWseCotPmXtbDqmGwuRSYkdzdNzr3oNOrGcAKgrE/copy	Emily Carton
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	Introduction to Inequalities	Thin Slicing	https://docs.google.com/presentation/d/1AdUF6-AqZBHszrYnh036B4MsCYP4zNz1EWn_kuvxbQ/copy	Jennifer Carter
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	CYU-Equations with 2 Variables	Check Your Understanding Sample that uses mild, medium and spicy questions	https://docs.google.com/document/d/1TxJbakyGVSfD4hVQ17lbCgJ1NreKDPL5qffWKg0z4Y/edit?usp=sharing	Jennifer Heffner
6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	Combining Like Terms - Full Lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	https://docs.google.com/document/d/1skcnbY6RtVWA9S1EFTwLmTda24f9jdb65XY2bUr1k/edit?usp=sharing	Deborah Harper
		Geometry (area, volume, surface area, nets)			
6th grade	Geometry (area, volume, surface area, nets)	File Cabinet from Andrew Stadel	How many post-it notes does it take to cover the file cabinet?	http://mr-stadel.blogspot.com/2012/04/file-cabinet.html	Nathan Kraft
6th grade	Geometry (area, volume, surface area, nets)	Candy Cartons from Mathematics Assessment Project	Students will design a candy carton.	https://www.map.mathshell.org/download.php?fileid=1611	Nathan Kraft
6th grade	Geometry (area, volume, surface area, nets)	Pop Box Design from Timon Piccini	Design a pop (soda) box.	http://mrpiccmath.weebly.com/blog/3-acts-pop-box-design	Nathan Kraft
6th grade	Geometry (area, volume, surface area, nets)	Girl Scout Cookies from Dan Meyer	How many girl scout cookies fit in the SUV?	https://www.101qs.com/3675	Nathan Kraft
6th grade	Geometry (area, volume, surface area, nets)	Area and Perimeter of a Rectangle from Owen Kaplinsky	Create a rectangle with an area close to 500 square units and with a perimeter close to 100 units.	https://www.openmiddle.com/area-perimeter-of-a-rectangle/	Nathan Kraft
6th grade	Geometry (area, volume, surface area, nets)	Area and Perimeter of a Rectangle from Owen Kaplinsky - adapted for decimals	Create a rectangle with an area close to 500 square units and with a perimeter close to 100 units using decimals.	https://docs.google.com/presentation/d/12xF-ecSBQX1zMvacLXHyCzuaG-Eq_ivpOJFx2NUKnso/copy#slide=id.g1527d3b9c99_0_45	Maria Searles
6th grade	Geometry (area, volume, surface area, nets)	Got Cubes from Graham Fletcher	How many cubes will fit in the box?	https://gfletchy.com/got-cubes/	Nathan Kraft
6th grade	Geometry (area, volume, surface area, nets)	Packing Cubes from Graham Fletcher	How many sugar cubes fit inside the box?	https://gfletchy.com/packing-sugar/	Nathan Kraft
6th grade	Geometry (area, volume, surface area, nets)	Overflow from Graham Fletcher	How many cubes can be dropped into the box before the water overflows?	https://gfletchy.com/overflow/	Nathan Kraft
6th grade	Geometry (area, volume, surface area, nets)	Area of triangles and Side Lengths from Open Middle	Use the numbers 2-10 to create three triangles and find the smallest total area of the triangles.	https://www.openmiddle.com/area-of-three-triangles/?fbclid=IwAR2tbW7oVmO8r6ZyT0KWdwpDH-v_6eRuzVfBvaoNHxZKaHzxGGfhg2PZTDLk	Monica Harrell
6th grade	Geometry (area, volume, surface area, nets)	Area of Trapezoids, Triangles, and Rectangles	Contains 3-4 days worth of tasks emphasizing that all area formulas are the average of the length times the maximum height.	https://twitter.com/MsMessineo/status/1407372220213641221?s=20	Julianna Messineo
6th grade	Geometry (area, volume, surface area, nets)	Area of Parallelograms	Set up to be used with PearDeck add-on for Google Slides, but could be printed out too	https://docs.google.com/presentation/d/1ohz9yccCilgw6maSTIKEv8FbvLQR2B94F5d_laMQdM/copy	Alicia Williams
6th grade	Geometry (area, volume, surface area, nets)	Area of Composite Figures (Intro)	Students explore creating composite figures	https://drive.google.com/file/d/1AteJSJHnwDeAQ4UJmrETNhYInsFcO19n/view?usp=sharing	Allison Gilmore
6th grade	Geometry (area, volume, surface area, nets)	Area of a Trapezoid	Students use a decomposing strategy to find the area of trapezoids on a grid.	Trapezoid Inquiry	Susie Halley
6th grade	Geometry (area, volume, surface area, nets)	Area of a Trapezoid	Notice & Wonder to derive 2 versions of the formula.	Trapezoid Formulas	Susie Halley
6th grade	Geometry (area, volume, surface area, nets)	Area of a Triangle	Students connect dots on a grid to create the given area (not all dots need to be utilized)	https://mathequalslove.net/sankaku-puzzles/	

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				Missing Side Length / Solve for Area	Students solve "Area Mazes" by finding missing side lengths or solving for an unknown area. I made a Google Form for kids to practice these, and if you google "area mazes," you can find more at different complexities.	Area Maze Form		google form says permission is needed																			this link need permissions granted	
	6th grade	Geometry (area, volume, surface area, nets)		Volume thin sliced	guides kids from cubes, to volume, to fractional lengths of rectangular prisms to cubes with fractional lengths	https://docs.google.com/document/d/199pLxzUSK-6muXYgNNRYIBPvN5DQSd9UAVz8xHPIEDk/copy?usp=sharing																							
	6th grade	Geometry (area, volume, surface area, nets)		Surface area thin sliced	Goes from nets to prisms to pyramids	https://docs.google.com/document/d/1BPDg62DiWJB5N_4uxpXO5pwLtLAr4nJXhcEuVoU_Z5A/copy?usp=sharing																							
	6th grade	Geometry (area, volume, surface area, nets)		Perimeter full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full lesson link	Deborah Harper																						
	6th grade	Geometry (area, volume, surface area, nets)		Area full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full lesson link	Deborah Harper																						
	6th grade	Geometry (area, volume, surface area, nets)		Surface Area full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full lesson link	Deborah Harper																						
	6th grade	Geometry (area, volume, surface area, nets)		Volume full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full lesson link	Deborah Harper																						
				Statistics (dot plots, box plots, histograms, measures of center and variability)																									
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Matching Mean, Median and Mode	The mean, median, and mode of the five numbers 5, 7, 8, A, B are equal. (The list has a single mode.) Find all possible values of A + B.		Alicia Williams																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Mean, Median, Mode	Find data sets that satisfy a given requirement concerning mean, median & mode.. https://nrich.maths.org/10995	Google Slides presentation	Kate Naveau																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Mean	Given a set of numbers, students chose one to wipeout to create a given mean	https://nrich.maths.org/wipeout	Kate Naveau																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Mean, Median, Mode	Find data sets that satisfy a given requirement concerning mean, median & mode.	https://nrich.maths.org/unequal	Kate Naveau																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Mean, Median	Find data sets that satisfy a given mean & median. Looks good for high students	https://nrich.maths.org/12618	Kate Naveau																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Dot Plots	Create a dot plot with the given requirement	https://drive.google.com/file/d/1tGtSEWBhochryGUYn18YmwaBa9WnqEM/view?usp=sharing	Kate Naveau																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Dot Plots	Interpreting dot plots	https://docs.google.com/presentation/d/1DtarTtZkFoU55RnWvtB_GwgCCu-FAuyZiueoJs7Aiyk/copy	Kate Naveau																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Exploring Mean	Students are given data scaffolded data sets and reason how to find the mean in their own words	https://docs.google.com/document/d/1Cs-PB3beMqG5AQzQbxh56lQZryciOPbm2B_a-tdx1nY/copy	Bridget Adam																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Exploring Median	Students are given data scaffolded data sets and reason how to find the median in their own words	https://docs.google.com/document/d/1Cs-PB3beMqG5AQzQbxh56lQZryciOPbm2B_a-tdx1nY/copy	Bridget Adam																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Range Tasks	Students use data to create their own definition of range	https://docs.google.com/document/d/1VoGUzhwjALCQOS1ZtXT5rebOGTB8H3Liw8OI8BeK1wcJY/copy	Bridget Adam																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Interquartile Range Smudge	"Oh no! I prepared notes on how to find IQR but I spilled coffee on them and I can't remember what they said! Can you figure out what was underneath the coffee smudges?"	https://drive.google.com/file/d/1ICfHQgF0HBrRKzKvqHH62y74aqxfywqt/view?usp=drive_link	Allie Lavenberg																						
	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)		Full Lesson - mean, median, mode, range	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full Lesson Link	Deborah Harper																						

Grade Leve	Topic	Type of Resource	Task Name	Description	Link to Task (include intro script if possible)
			Expressions, Equations, Inequalities 7.EE		
7th grade	Expressions, Equations, Inequalities 7.EE		Algebraic Equations Problem Sequence	Solving Equations-Thin Slicing	Thinking Classroom Gr7 Algebraic Equations Problem Sequence - EXTENDED
7th grade	Expressions, Equations, Inequalities 7.EE		Simplify and Factor Expressions	Multiple days- students complete thin sliced problems using magnetic algebra tiles at VPNS	https://docs.google.com/document/d/1cuiRPdbxnK5qeIa7U-QwABCreBPEc--ueCbniHfcAIM/edit?usp=sharing
7th grade	Expressions, Equations, Inequalities 7.EE		Card sorts, and quests	Various card sorts, called quests - found through Open up resources	https://drive.google.com/file/d/1Ejub73M9wkiLr0fO9uS7nYh2In6lkgFF/view
7th grade	Expressions, Equations, Inequalities 7.EE			Several level tasks at the end of this packet	Math 7 Unit 1: - Ratios and Proportional Reasoning
7th grade	Expressions, Equations, Inequalities 7.EE			Works with absolute value and zero pairs	https://tasks.illustrativemathematics.org/content-standards/tasks/310
7th grade	Expressions, Equations, Inequalities 7.EE		Number Tricks	Write equations and simplify to reveal why number tricks work	https://blythevillemath.weebly.com/uploads/1/3/3/0/13301969/masons-secret.pdf
7th grade	Expressions, Equations, Inequalities 7.EE		I'm thinking of a number.. what is it?	Students write algebraic equations and solve them	f
7th grade	Expressions, Equations, Inequalities 7.EE		Pig pen algebra	Students write equations, and recognize patterns	https://mathprojectsjournal.files.wordpress.com/2013/02/pig-pen.pdf
7th grade	Expressions, Equations, Inequalities 7.EE		Pool border problem	Students write different equivalent expressions for the border around a square pool	https://www.kentuckymathematics.org/docs/Algebra_Rich_Task_Border_Problem.pdf
7th grade	Expressions, Equations, Inequalities 7.EE		Clothesline Math	Students evaluate and match expressions with answers	https://estimation180.com/expressions/
7th grade	Expressions, Equations, Inequalities 7.EE		Distributive Property	Thin Slice and Check Your Understanding	Thin Slice (created as cards, or string is last page) CYU (problems and answers 3 levels)
7th grade	Expressions, Equations, Inequalities 7.EE		Distributive Property - Full Lesson - update for 23/24	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Distributive Property Lesson link
7th grade	Expressions, Equations, Inequalities 7.EE		Solve one variable equations	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Solve One Variable Equations Lesson link
7th grade	Expressions, Equations, Inequalities 7.EE		Equations Desmos	Thin Slicing: One-step, two-step, distributive property, with rational solutions, 0, and negative solutions--Has feedback on each slide	https://teacher.desmos.com/activitybuilder/custom/64078c852b15b291066e5234
7th grade	Expressions, Equations, Inequalities 7.EE		Woody's Raise	Students create an inequality to find a better deal, equivalent deal & worse deal	https://www.101qs.com/2327
7th grade	Expressions, Equations, Inequalities 7.EE		Bill's Fence Problem	This is modified from an activity I found on teachers pay teachers. Feel free to tweak it. Basically students are finding the best deal on a fence and staying under budget.	https://docs.google.com/document/d/1q_SRkDpHUFW7Wk1hcSvxvxwEcksAIGLyNftInrCJQY4/edit?usp=sharing
7th grade	Expressions, Equations, Inequalities 7.EE		Multiplicative and Additive Inverse Thin Slicing	15 problems broken up into three "rounds" on multiplicative and additive inverse as well as "invisible" math	Multiplicative and Additive Inverse Thin Slicing
7th grade	Expressions, Equations, Inequalities 7.EE		Add 'Em Up	Students work in groups of four (but can be modified) and each solve one problem. The sum of their solutions should equal the number in the middle.	https://drive.google.com/file/d/1_ZRhneVBLmY299lgxRPArHwwvDS9tj3a/view?fbclid=IwAR01vto0nJVCBcYCueeqvgDOLISAm56LQ_UyonCeXAxNdIvR5TxpkmQbpvQ
7th grade	Expressions, Equations, Inequalities 7.EE		OUR, grade 7, unit 15	Thin slicing to introduce negative variables in inequalities.	https://docs.google.com/document/d/1Sn94TuVZQAzY511sZSnmBV866bf4gRokFOc48FaEnac/edit?usp=sharing
7th grade	Expressions, Equations, Inequalities 7.EE		Distributive Property 4	Directions: Using the digits 0 to 9, at most one time each, to make a true equation. Students fill in the boxes to create a true equation.	Distributive Property 4 | Open Middle®
7th grade	Expressions, Equations, Inequalities 7.EE		Two-Step Equations 2	Directions: Using the digits 1 to 9 at most one time each, fill in the boxes to find the largest (or smallest) possible values for x.	https://www.openmiddle.com/two-step-equations-2/
7th grade	Expressions, Equations, Inequalities 7.EE		Multi-step Equations	Add 'em Up: The groups will will have four problems to solve and the sum of the answers should equal the value in the middle	Equations Add 'Em Up.pdf
7th grade	Expressions, Equations, Inequalities 7.EE		Task: Fencing Your Lawn	Students calculate the cost of fencing and laying sod on a lawn. Must calculate perimeter and area and write variable expressions that model the cost of materials.	https://docs.google.com/document/d/1MPW_nRr5SaxEI_CVDpJH2iHFgRpqYaq05I45-JyiM-I/edit?usp=sharing
7th grade	Expressions, Equations, Inequalities 7.EE		Desmos Twin Puzzles	Students are given two equations without operation signs or groupings and are asked to put operations in to make the equations true.	https://teacher.desmos.com/activitybuilder/custom/57ae458a697f767c75597801
7th grade	Expressions, Equations, Inequalities 7.EE		Percent Expressions Thin Slicing	Thin slicing activity to introduce the idea of percent expressions.	Percent Expressions Thin Slicing
			Rational Number Operations 7.NS.A		
7th grade	Rational Number Operations 7.NS.A		24	Make the number 24 from the four numbers shown on the card. They may use any operations.	
7th grade	Rational Number Operations 7.NS.A		Temperature Changes	Find missing temperatures - understand positive and negative numbers in context	https://www.map.mathshell.org/download.php?fileid=1625
7th grade	Rational Number Operations 7.NS.A		Adding Integers	Task string for adding integers	#2 Adding Integers
7th grade	Rational Number Operations 7.NS.A		Multiplying and Dividing Integers	Task string for multiplying and dividing integers	https://docs.google.com/presentation/d/12YPDJRqInlRGw_H56OnXERhnfQtzrTCkFOcpE9QNwuY/edit?usp=sharing

Other Notes	Author	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By
Grade 6/7 content, but could be used to scaffold equation solving for Gr 8 from @mr_keysmusic		Abby Bates						
		Amy Hoekstra						
Proportional Graphs		Amy Marcum						
		Amy Marcum						
		Amy Marcum						
		Amy Marcum						
p. 49 and 50		Amy Marcum						
		Amy Marcum						
Extensions are to make the pool rectangular or to have borders that are 2 or more layers wide		Anna Blinstein						
		Cheryl Fink						
The thin slice was created for review of the distributive property. I have the hand written string on the last page if you want to give them verbally. The CYU was created using the Basic, Intermediate, and Advanced levels - answers only on the back.		Deborah Harper						
This is the updated version of the lesson - using stage 1 notes with the errors on the left and language updated to mild, medium, and spicy.		Deborah Harper						
Full lesson plan with links		Deborah Harper						
I designed this for a class of struggling 7th graders to reteach equations mid-unit. Has 30-35 equations plus an unlimited practice slide at the end		Hannah Johnson						
		Jaime Suarez						
This works well as an introduction to inequality word problems		Jessica Simek						
https://docs.google.com/presentation/d/1egdq0GT0ZVQuj1K0FKGFJcLnAQrulnDhLrjOXpZUoes/edit?usp=sharing		Jessica Simek						
I gave them 10 minutes to work and walked around to monitor. Then they would leave the sheet and rotate to the next group. Because I had small class sizes, I had a few extras that I could give out to my early finishers.		Jessica Simek						
I adapted this from the Open Up Resources/(IM).		Jessica Throolin						
See Open Middle for more variations.		Jill Weiss						
See Open Middle for more variations.		Jill Weiss						
You can make a template and use this for any kind of problem/equations		Justina Erre						
Students intuit the area and perimeter formulas without being taught. It's also nice to see different (but equivalent) expressions and talk about like terms, why the equations are equivalent, etc.		Katrina Misley						
Thin slicing throughout activity and ends with students creating their own and sharing with classmates.		Spring Alvarez						
I use this at the end of my expressions unit (which follows my percents unit)		Tom Fisher						
Have students write as a single expression.		Alicia Bena						
I skipped the pre-assessment and have students work in group of 3. They completed the task on VNPs.		Alicia Bena (credit to MAP)	Temperature Change (M7 U1)					
Would intro activity by using integer chips to show zero pairs, and model one or two addition problems. Would not introduce rules. **Credit:** First three sets of problems came from Amy Marcum, the rest of the problems came from Big Ideas 7th Grade MRL		Andrea Hart						
Intro script for multiplication --> one of the tasks has students use the fact family from the intro task 3 * (-3) = -9 to discover that -9/3=-3 and -9/-3=3, show the rules for multiplication and division are the same.		Andrea Hart						

		Subtracting Integers	Make the number 24 from the four numbers shown on the card. They may use any operations.	https://docs.google.com/presentation/d/1I2jGOI9nGI16HG9k5MUcz8qaNhlR1-v84diH3aRCeSE/edit?usp=sharing
7th grade	Rational Number Operations 7.NS.A			
		Desmos Hot Air balloon interactive	Adding and subtracting integers- great introduction and very interactive (sand bags for negatives, balloons for positives)	https://teacher.desmos.com/activitybuilder/custom/5b4ab67a45f48c4f601ba41b
7th grade	Rational Number Operations 7.NS.A			
		https://teacherthrive.com/teaching-order-of-operations/	6th grade concept that can be used for review before introducing expressions and equations. This is a hands on activity that does not use a mneumonic device.	https://teacherthrive.com/teaching-order-of-operations/
7th grade	Rational Number Operations 7.NS.A			
		Decomposing 25	Adding and subtracting integers- great introduction and very interactive (sand bags for negatives, balloons for positives)	https://docs.google.com/document/d/1BkabOiBaDRnvbOMykVAmdCh3RML4xpJ6ZaJJx_Eajac/copy
7th grade	Rational Number Operations 7.NS.A			
		Unusual Calculator	Adding and Subtracting integers	https://docs.google.com/presentation/d/1BFw3OuC8dBIyqxhRPJM79BHXicZ2_OIlv1QPV3bFD54/edit?usp=sharing
7th grade	Rational Number Operations 7.NS.A			
		Rational Number Imposter Challenge (Converting Fractions to Decimals)	Converting fractions to decimals to find terminating or repeating.	https://docs.google.com/presentation/d/1zEDjSNFgyPzlFSfFxA9BGCKVj4Qx9_lcOlzGGFcmowE/copy
7th grade	Rational Number Operations 7.NS.A			
		Absolute Value and Adding Integers	Notes to Future Forgetful Self	https://docs.google.com/document/d/1xB79N1pTr77NLbGnRzBxP5YuMyyeJb6TQyfy0cP_cf4/edit?usp=sharing
7th grade	Rational Number Operations 7.NS.A			
		Subtracting Integers	Notes to Future Forgetful Self	https://docs.google.com/document/d/1mui3vgauxfarNtgZiCpD0KHf6ZwFBXOFWCiocSiKqs8/edit?usp=sharing
7th grade	Rational Number Operations 7.NS.A			
		Multiplying and Dividing Integers	Notes to Future Forgetful Self	https://docs.google.com/document/d/1mcymTDoCC82B6cvw5spNlFgPEhl1vKAdwC1ja1iqJoA/edit?usp=sharing
7th grade	Rational Number Operations 7.NS.A			
		Exponent Rules	Do a similar prompt for each exponent rule. Model one rule so they know what to expect. Then they do all the others on their own. In between each prompt, go over the rule and discuss.	https://www.inquirymaths.com/home/number-prompts/laws-of-exponents-inquiry
7th grade	Rational Number Operations 7.NS.A			
		Develop Integer Rules	I had students solve these by drawing a diagram on VNPS. I then had students develop integer rules with their groups.	https://docs.google.com/document/d/1iraOy5TTOMC4Y5CrnNqOsR79saVe2L6fJjPbYfoPKwA/edit
7th grade	Rational Number Operations 7.NS.A			
		Adding Integers with an extension for subtracting integers	All letters of the alphabet are given a value of either positive 1 or negative 1. Students are challenged to find words with the greatest value or least value.	https://docs.google.com/presentation/d/1ocvA4qDRT4VCSqT57CLGUA8JxzjRj_CBWtxQk_-9Iko/edit?usp=sharing
7th grade	Rational Number Operations 7.NS.A			
		Integer Sort	Students go through a set of integer statements deciding if they are always, sometimes, or never true and explain/give proof of their conjectures	Integer Sort
7th grade	Rational Number Operations 7.NS.A			
		g	Cooking with cubesGood story for students to visualize adding and subtracting	https://www.d47.org/cms/lib/IL01904560/Centricity/Domain/1722/6.2%20NOTES%20Cooking%20with%20Integers%20-%20Addition.pdf
7th grade	Rational Number Operations 7.NS.A			
		Integer Chipboard	Interactive tool to allow students to explore adding & subtracting of integers	https://www.fishmath.com/interactive/chipboard
7th grade	Rational Number Operations 7.NS.A			
		intro to adding and subtracting	This is a video by Kyle Pearce	https://mathisvisual.com/integer-addition/
7th grade	Rational Number Operations 7.NS.A			
		Shopping Spree	Spending given amounts (adding/subtracting with decimals	Integers Thinking Problems
7th grade	Rational Number Operations 7.NS.A			
		Limbo: An Integer Game	Objective: Insert a set of integers into a 4-by-4 grid so that the sums of the rows and columns is a minimum.	**Link**
7th grade	Rational Number Operations 7.NS.A			
		Adding and Subtracting Integer Thin Slicing	These are some problems (based on Pam Harris's work) that lend themselves well to different strategies	https://docs.google.com/document/d/1S_chn9HyJWAeJ1IwucpYRICVvjL9PolrImLfCm9TNiE/edit
7th grade	Rational Number Operations 7.NS.A			
		GeoGebra	Zero-Sum game. The objective of the game is to select three integers whose sum is equal to zero.	Link
7th grade	Rational Number Operations 7.NS.A			
		Additive Inverse	DESMOS Hot Air Balloon: Adapted for Eureka M2L1 and Envisions 1-1	LINK
7th grade	Rational Number Operations 7.NS.A			
		Unit Rates and Proportional Relationships 7.RP		
		Best Deal Percent Problems	Problem set to use at boards, determining which of 2-3 options are the best deal when making a purchase	https://docs.google.com/presentation/d/1b8f0Bo1Ik1H3YZprh7DoPX6epmV1cSgFQtMJorrSv-E/edit?usp=sharing
7th grade	Unit Rates and Proportional Relationships 7.RP			
		Similar Shapes, Scale Factor Task (Open Middle)		https://www.openmiddle.com/similar-shapes/
7th grade	Unit Rates and Proportional Relationships 7.RP			
		Water Bottle Wager by Andrew Stadel	What is longer, the height or circumference of a water bottle?	http://mr-stadel.blogspot.com/2014/05/going-round-in-circles.html
7th grade	Unit Rates and Proportional Relationships 7.RP			
		Scaled Copies	Future Forgetful Selfie Notes	Teacher Copy and Student Copy
7th grade	Unit Rates and Proportional Relationships 7.RP			
		The Candy Jar Task	Students will identify the relationship between quantities as multiplicative (proportional) and will use one of several strategies (e.g., unit rate, scale factor, scaling up, cross-multiplication) and/or representations (e.g., table, picture, procedures, verbal description) to solve the task.	NCTM Mr. Donnaly and the Candy Bar Task
7th grade	Unit Rates and Proportional Relationships 7.RP			

Would intro activity by using integer chips to show taking away negatives, and how when you take away negatives, the number is larger than when it started. Would also show how if you need to take away more negatives or positives than what you started with, you can add zero pairs. During the tasks, they should be discovering that subtracting is the same as adding the opposite. Would show that during consolidation.	Andrea Hart		
Practice adding/removing balloons (positives) and sand bags (negatives) to make it through holes in the wall without crashing (real explosion graphic!) Does a great job going from game mode to translating into number sentences and utilizing integers after practicing with the balloon and	Ashley Lipka	This is the wrong link. It looks like someone accidentally copied and pasted the link from the row above.	
Teacher Thrive blog post that includes a link to the activity in TPT. Activity is free in TPT	Brandi Henderson		
Great for use with lower level learners or an introductory thinking task.	Carrie Herman		
Found on Mathletics	Erica Cross	Perfect for introducing Integers - worked well in my class - S. Dobbs	
Inspired by an activity that Tim Erwin posted in the BTC FB group. Includes slides for fraction, improper fractions, and mixed numbers. Also includes blank templates in order to modify this activity to the needs of your students.	Erin Beaver		
Teacher copy	H. Wolf		
Teacher copy	H. Wolf		
Teacher copy	H.Wolf		
I included negative exponents in follow up examples even though it's an 8th grade standard.	Jessica Simek		
	Jill Torrence		
This could definitely be a non-curricular task for students who already have a grasp of negative numbers. I have actually used this with a very academically diverse group of 6th graders.	Julie Pottinger		
I have groups cut out the statements to put onto a poster but students could write them down on their VNPS's instead	Melanie Formosa	https://docs.google.com/presentation/d/1jVe4nlHeWLLyaV0dEDAaO99K-mJIBGSMUZYtFP6bLOU/edit?usp=sharing	
havent tried yet, but doing it this week	Michele Szymanski	super interesting to my students and helped them understand - S. Dobbs	
I use this to have students explore different problems (using the new problem button), create that problem on the board, and then check their answer. The answer will be green if their board matches I use this a numbers Talk for students to Notice, Wonder, and think. https://docs.google.com/presentation/d/1-3mSIIG6iksDvhPFR8Z8MiAUxfIW8BvGTS2xStnwuBE/edit?usp=sharing	Tom Fisher		
After each round, discuss which strategies worked best for each problem and why			
I used this to introduce additive inverse, we changed curriculums so it has a combination of problmes =)	Suzanne Schultz	Notes Additive Inverse	
	Heddi Craft		
	KatieJo Serrano		
(OUR Lessons 1 and 2)	Nathan Kraft		
Since I didn't give calculators, there is a scaffold with the multiplication chart included that students found helpful.	Nickel & Wolf		
	Rebecca Williams		

7th grade	Unit Rates and Proportional Relationships 7.RP	Solutions	Solution 1 consists of 80% benzene and 20% toluene. Solution 2 consists of 30% benzene and 70% toluene. (a) How many mL of Solution 1 must be added to 500 mL of Solution 2 in order to produce a solution that is 70% benzene? (b) How many mL of Solution 1 and how many mL of Solution 2 must be combined to form a 100 mL solution that is 50% benzene and 50% toluene? (c) Is there a combination of Solution 1 and Solution 2 that is 90% benzene and 10% toluene?	https://data.artofproblemsolving.com/course-docs/syllabi/algebra-a-syllabus.pdf
7th grade	Unit Rates and Proportional Relationships 7.RP	Unit Conversions Railroad Task	Students will help a small business figure out how much railroad and gasoline they need for their new venture as well as what to charge their guests using unit rate and dimensional analysis	https://docs.google.com/document/d/1JRESeWCCV7IEJzrE4s5xaWULdgriqViTRCstEpyQAdc/edit?fbclid=IwAR17uf__xyZ6wp7M4cx1jKRb_brWfEuL4ETSkcaF2056JNgBozAwQ-1b8mA
7th grade	Unit Rates and Proportional Relationships 7.RP	Best Coins to Steal	Dan Meyer posted this blog and the second way of doing the problem would be great for a task.	https://danmeyer.substack.com/p/how-to-ruin-a-great-math-problem?utm_source=substack&utm_medium=email
		Geometry (Angles, Circles, Scale drawings) 7.G		
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Slicing 3D solids	Investigate what results when slicing 3D shapes	https://docs.google.com/document/d/16z6I2s2PkhArOlusuUP-XMzMk38ggLxY85VLtU62b5A/edit?usp=sharing
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Constructing Triangles	Using 3 numbers randomly generated (1-10) can you construct a triangle? What do notice about when you can and cannot construct a triangle?	https://nrich.maths.org/8098
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Vertical and Adjacent Angles	Print out one quadrilateral for each VNP and laminate it. Each group will get a ruler, protractor, and the quadrilateral. They will have to extend the lines of the shape to form a transversal of sorts and then use the protractor to measure each angle. The goal is to get them to see that vertical angles are congruent and the four intersecting angles add up to 360.	
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Angle Facts - full lesson	thin slice, cyu, notes (23/24 model),test questions.	Full lesson link
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Area of compound shapes	I saw something similar on Pinterest so this is not my own idea. Students will work in their groups to perform "surgery" on compound shapes to find the	Compound Shape Surgery
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Volume Formulas	First, I will show my students a ream of paper and explain how if I laid all these pieces of paper end to end and calculated the area, that would be the same as calculating the volume, which is why you multiply by the height. Then, each group will be assigned a 3-d shape and using what they know about surface area and the demonstration, they have to come up with a volume formula and test it with sample problems.	https://docs.google.com/document/d/1IlgnGoEp3vdH0O816cJz-jdYf1yHbsQP2IFq2w8_-jc/edit
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Circumference of circles	Thin slicing from conceptual understanding to solving with algebraic equations	Thin sliced: Distance around a snowman
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Full Lesson - Circumference of circles	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full lesson link
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Full Lesson - Area of circles	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice	Full lesson link
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Band Around the Earth	Challenging problem involving a band around the entire Earth	https://docs.google.com/document/d/1BN1P-rWYEaGGZl00kPOmCENmMrG2DjH55TprQUDOnRU/edit?usp=sharing
7th grade	Geometry (Angles, Circles, Scale drawings) 7.G	Triangle Inequality	Desmos activity (by Jay Lane) to discover the triangle inequality	https://teacher.desmos.com/activitybuilder/custom/6408e7be28d3c0871ef5a76f
		Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP		
7th grade	Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP	Counting Trees	A task about sampling	https://www.map.mathshell.org/download.php?fileid=1654
7th grade	Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP	Compound Events		https://docs.google.com/document/d/1VZIqEgoZp6da9n0H0mNcDJ7Ws7dTmr3VzKASHsJb04w/copy?usp=sharing
7th grade	Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP	Simulating a compound event	Design & Use a simulation	https://docs.google.com/document/d/15WN5ztGJPHRaOCrlFS8hPlUHJgWHbOYhNEfReQpM9Sk/copy?usp=sharing
7th grade	Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP	Mr. Brigg's Class Likes Math	Sample data representative of whole population - yes or no?	http://tasks.illustrativemathematics.org/content-standards/7/SP/A/1/tasks/974
7th grade	Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP	Valentine Marbles	Variability among estimates of random samples	http://tasks.illustrativemathematics.org/content-standards/7/SP/A/2/tasks/1339
7th grade	Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP	Which traffic stop is most efficient?	I did this over two days but they could use more time to get their presentation put together. The prompt is that they are on their city council and they have to decide which kind of traffic stop makes the most sense at each of the five locations.	https://docs.google.com/presentation/d/1dffiHbcOZagoV7o5rmH5DoqjJyd57sSujXg3q6vY4Bc/edit#slide=id.gf2ef74cd5d_0_4
7th grade	Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP	Multiplying two negative numbers	A short task on why multiplying by two negative numbers is positive	https://docs.google.com/document/d/1D4FdNkHwRvwTyCsLp1JOQKNlkUBwsQBk1EB-iW2OjTA/edit
		Full Curriculum Resources		
7th grade	Full Year Resources	The Centre for Education in Mathematics and Computing	The Problem of the Week is designed to provide students with an ongoing opportunity to solve mathematical problems. Each week, problems from various areas of mathematics will be posted here and e-mailed to teachers for use with their students from grades 3 and up.	CEMC - Web Resources - Problem of the Week - University of Waterloo
7th grade	Full Year Resources	Dr. Austin's Maths	Worksheets that are great for thin slicing	https://www.draustinmaths.com/number
7th grade	Full Year Resources	Notes Packets	Notes Packets including graphing organizers and CYU	https://drive.google.com/drive/folders/1Llr563D-pRpKd5iSba4gnWFcNP1Gk6wN?usp=sharing
7th grade	Full Year Resources	Curriculum Map & Tasks	https://docs.google.com/document/d/1KYgtd2q5x2clpDTwtJwpDeAoZw_M_O0R9Au5bkKXHsE/edi	Grade 7 CCSS PrBL Curriculum Map
7th grade	Full Year Resources	Open Middle Digital Activities	I found this link on Twitter, it's the Open Middle 7th Grade Challenges	https://www.openmiddle.com/category/grade-7/
7th grade	Full Year Resources	algebra	Full 8th Grade curriculum from Alicia Burdress (Alberta, Canada). See correlation to CCSS topics HERE (similar to 7th/8th CCSS)	https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf
7th grade	Full Year Resources	IM Community Resources		https://docs.google.com/spreadsheets/d/1T5rNoJUffdWLU11tql2Rb3xW64fs0XmTR-8U-j8NxN0/edit?fbclid=IwAR24pNnpaJnt6d_I5i7NOBMGRIDFihDof6wlVn_mE64t4h9BQRB-qFpwCpY#gid=1722010176
7th grade	Full Year Resources	7th Grade Curriculumn Notes		

See sample problem at end of document make a copy						
	Amy Marcum					
I used this to have students discover the triangle inequality	Ashton Shetler					
It might be good to refresh their minds on what supplementary relationships look like and what they equal. You'll have to prompt students to add up the angles.	Jessica Simek					
Based on Taylor Lord's Increasingly Difficult Proble,s	Deborah Harper					
Print a copy for each group to help keep them in flow.	Jessica Simek					
Print more than one copy so early finishers can develop more formulas	Jessica Simek					
Includes the Andrew. Stadel water bottle wager as the kick off activity. Thin slice based on Taylor Lord's Increasingly Difficult Problems.	Maggie Perreault Deborah Harper Deborah Harper					
From Jim Matthews, Sienna College	Tom Fisher					
I use this for the triangle inequality	Tom Fisher					
Mathematics Assessment Project (MAP) 4 scenarios with samples already created for students to evaluate.	Emily Reinhard					
Used as a precurser to students created, simulating and evaluating their own simulations based on given scenarios	Carri Chesler					
https://docs.google.com/document/d/15WN5ztGJPHRaOCrIFS8hPIUHJgWHbOYhNEfReQpM9Sk/copy?usp=sharing	Carri Chesler					
Illustrative Mathematics	Hannah Edgar					
Illustrative Mathematics	Hannah Edgar					
	Jessica Simek					
	Jessica Simek					
	Tom Fisher					
	Abby Bates					
www.aliciaburdess.com						
		https://drive.google.com/drive/folders/1Llr563D-pRpKd5iSba4gnWFcNP1Gk6wN?usp=sharing				

Other Resources					
7th grade	Other Resources		Integer Fluency	Activities to Increase Fluency with Integer Computation	Link
7th grade	Other Resources		Absolute Value + Compare/Order Rational Numbers	*sequence of tasks for absolute value and comparing/ordering rational numbers*	https://docs.google.com/presentation/d/1KDCdJZui-nRuM1tAGjfRupxquTycNiOijp0kHBN_U8I/edit?usp=sharing
7th grade	Other Resources		Percents Explore Activity	Students were given a set of tables to fill in as a group without the use of calculators, from least challenging to most challenging. The first table has a mistake that students have to identify. The goal was to help them start to notice relationships between the original number, the percent, and the	https://drive.google.com/drive/folders/1sY89r7BDsoM4qYGBor4y3OA51QFNfshl?usp=sharing
7th grade	Other Resources		Genius Blocks		Link
7th grade	Other Resources		Balancing Scales		Link
7th grade	Unit Rates and Proportional Relationships 7.RP		Best Coins to Steal	Dan Meyer posted this blog and the second way of doing the problem would be great for a task.	https://danmeyer.substack.com/p/how-to-ruin-a-great-math-problem?utm_source=substack&utm_medium=email
7th grade	Unit Rates and Proportional Relationships 7.RP		Unit Conversions Railroad Task	Students will help a small business figure out how much railroad and gasoline they need for their new venture as well as what to charge their guests using unit rate and dimensional analysis	https://docs.google.com/document/d/1JRESeWCCV7IEJzrE4s5xaWULdgriqViTRCstEpyQAdc/edit?fbclid=IwAR17uf__xyZ6wp7M4cx1jKRb_brWfEuL4ETSkcaF2056JNgBozAwQ-1b8mA
7th grade	Unit Rates and Proportional Relationships 7.RP		Solutions	Solution 1 consists of 80% benzene and 20% toluene	https://data.artofproblemsolving.com/course-dc
7th grade	Unit Rates and Proportional Relationships 7.RP		The Candy Jar Task	Students will identify the relationship between quantities as multiplicative (proportional) and will use one of several strategies (e.g., unit rate, scale factor, scaling up, cross-multiplication) and/or representations (e.g., table, picture, procedures, verbal description) to solve the task.	NCTM Mr. Donnaly and the Candy Bar Task
7th grade	Unit Rates and Proportional Relationships 7.RP		Scaled Copies	Future Forgetful Selfie Notes	Teacher Copy and Student Copy
7th grade	Unit Rates and Proportional Relationships 7.RP		Water Bottle Wager by Andrew Stadel	What is longer, the height or circumference of a water bottle?	http://mr-stadel.blogspot.com/2014/05/going-round-in-circles.html
7th grade	Unit Rates and Proportional Relationships 7.RP		Similar Shapes, Scale Factor Task (Open Middle)		https://www.openmiddle.com/similar-shapes/

Start with human number line (shout out to Amy Marcum in the previous link) to introduce absolute value (look how -5 and 5 are the same distance from 0, that means they have the same absolute		Andrea Hart						
		Paige Conley						
make a copy								
See sample problem at end of document								
		Rebecca Williams						
Since I didn't give calculators, there is a scaffold with the multiplication chart included that students found helpful.		Nickel & Wolf						
(OUR Lessons 1 and 2)		Nathan Kraft						
		KatieJo Serrano						

Timestamp	Grade Level:	Topic	Type of Resource:	Task Name
				Full Curriculum Resources
	8th grade	Full Year Resources		Teaching Through Problems Worth Solving
	8th grade	Full Year Resources		Curriculum Map & Tasks
	8th grade	Full Year Resources		Activity Tracker
	8th grade	Full Year Resources		Meaningful Notes Non-Specific Graphic Organizers
				Rational/Irrational Numbers 8.NS.A
	8th grade	Rational/Irrational Numbers 8.NS.A		Identifying Rational/Irrational Numbers
	8th grade	Rational/Irrational Numbers 8.NS.A		SUPER BEAR
	8th grade	Rational/Irrational Numbers 8.NS.A		Estimating Square Roots using a Number Line
	8th grade	Rational/Irrational Numbers 8.NS.A		Comparing/Ordering Numbers

	8th grade	Rational/Irrational Numbers 8.NS.A	Open Locker
			Radical & Integer Exponents 8.EE.A
	8th grade	Radical & Integer Exponents 8.EE.A	Perfectly Imperfect
	8th grade	Radical & Integer Exponents 8.EE.A	Perfect Squares and Square Roots
	8th grade	Radical & Integer Exponents 8.EE.A	Exponents
	8th grade	Radical & Integer Exponents 8.EE.A	Product Rule
	8th grade	Radical & Integer Exponents 8.EE.A	Exponent Rules- thin slicing

	8th grade	Radical & Integer Exponents 8.EE.A	Bullseye/Target Practice (Simplifying Zero & Negative E
	8th grade	Radical & Integer Exponents 8.EE.A	Evaluating Square Roots/Approximating Square Roots
	8th grade	Radical & Integer Exponents 8.EE.A	Perfect Squares Full Lesson
	8th grade	Radical & Integer Exponents 8.EE.A	Full Lesson - exponent rules
	8th grade	Radical & Integer Exponents 8.EE.A	Adapted IM/Open Up Resources Unit 7: Exponents and
			Connecting Proportional Relationships, Lines, and Linea
	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B	Unit on Proportional Relationships and Slope
	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B	Slope to Compare Unit Rates
	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B	Slope-Intercept Form
	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B	Barbie Bungee
	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B	Deriving the Slope Formula

	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B	Discovering y = mx + b
			Solving Equations & Pairs of Simultaneous Equations 8
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Multi-step equations thin slicing (variation of the task ab
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Algebraic Equations Problem Sequence
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	solving systems
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Multi-step equations thin slicing
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	One and two step equations
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Multi-Step Equations
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Equations with Variables on Both Sides: Types of Solut
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Solving Linear Equations

	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Task for launching systems of equations unit
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Multi-step equations error analysis
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Solving Systems by Substitution
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Multi-Step Equations Problem String
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	One-Step Equations Check Your Understanding
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Two-Step Equations Problem String
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Multi-Step Equations Problem String
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Multi-Step Equations Check Your Understanding
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Distributive Property Intro Thin Slicing
	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	Thin-Slice -Standard Form to Slope Intercept (8.EE.6)
			Functions 8.F.A and 8.F.B
	8th grade	Functions 8.F.A and 8.F.B	
			Congruence and Similarity 8.G.A

	8th grade	Congruence and Similarity 8.G.A	Dilations Tasks
	8th grade	Congruence and Similarity 8.G.A	Congruence Task
	8th grade	Congruence and Similarity 8.G.A	Mixed Review of Transformation Maps
	8th grade	Congruence and Similarity 8.G.A	Two Truths and a Lie
	8th grade	Congruence and Similarity 8.G.A	Ms. Pac-Man (great 1st day of the unit!
	8th grade	Congruence and Similarity 8.G.A	Translations BTC - Thin Slicing
	8th grade	Congruence and Similarity 8.G.A	Reflections BTC - Thin Slicing
	8th grade	Congruence and Similarity 8.G.A	Rotations BTC - Thin Slicing
	8th grade	Congruence and Similarity 8.G.A	Transformations Shortest Sequence Task (Open Middle

	8th grade	Congruence and Similarity 8.G.A	Scale Factor BTC - Thin Slicing
	8th grade	Congruence and Similarity 8.G.A	Transformation LOGO
	8th grade	Congruence and Similarity 8.G.A	Similar Shapes, Scale Factor Task (Open Middle)
			Pythagorean Theorem 8.G.B
	8th grade	Pythagorean Theorem 8.G.B	Pythagoras Sheet (from book)
	8th grade	Pythagorean Theorem 8.G.B	Expanded Tracks - Application of Pythagorean Theorem
	8th grade	Pythagorean Theorem 8.G.B	Full Lesson - Pythagorean Theorem
	8th grade	Pythagorean Theorem 8.G.B	Ant (Pythagoras) Problem
	8th grade	Pythagorean Theorem 8.G.B	Squares Activity
	8th grade	Pythagorean Theorem 8.G.B	Discovering the Pyth Thm
	8th grade	Pythagorean Theorem 8.G.B	Mindset Mathematics-Pythagorean Theorem

	8th grade	Pythagorean Theorem 8.G.B		Thin Sliced Problems
				Volume of Cylinders, Cones, and Spheres 8.G.C
	8th grade	Volume of Cylinders, Cones, and Spheres 8.G.C		
				Bivariate Data 8.SP.A
	8th grade	Bivariate Data 8.SP.A		

Description	Link	Other comments:	Author	Added by:		
	https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf	www.aliciaburdess.com		Abby Bates		
	Grade 8 CCSS PrBL Curriculum Map			Abby Bates		
	https://docs.google.com/spreadsheets/d/14yF-UXIoluBwjJ75ykbsTWIUy3dP2wFfIId3qwZ57R0/edit#gid=1622682614	Shared by Laura in the Building Thinking Classroom practice sharing sessions hosted by Will Dunn		Abby Bates		
	Meaningful Notes: Non-Speci	teacher created		Dana Carie		
	https://docs.google.com/document/d/1f9P9eTfgEMpM1DYz1LsLYDPf0Ze_SvCbA0lBfbhvQVs/copy	teacher created; TEKS aligned (8.5A)		Neleigh Johnson		
	https://docs.google.com/presentation/d/1c98J5102WHelir5n82siuAn_Tf3qemcFTwWtWD-QSyE/edit?usp=sharing.	Presentation Created from https://mrmeyer.com/threeacts/superbear/		Samantha Bennett - Original Creator of Super Bear activity Dan Meyer		
	https://docs.google.com/presentation/d/1thJh11Xh4oY8bUl6x64N2TavlHvkJpiS7UtKA7codfM/edit#slide=id.ge92c50fa91_0_15	teacher created		Dana Carie		
	don newman	teacher created		Jason Ayers		

	https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf	Imagine that you are in a school that has a row of 100 clo Geeta Makhija	
Thin Slice activity for product rule (multiplying exponential expressions with like bases)	https://artofproblemsolving.com/community/c1105845h2631168_perfectly_imperfect 1) Cheezits Activity A link to modified Notes page (updated numberline) 2) Open Middle Perfect Squares link 3) CYU Perfect Squares and Square Roots (Level 2 from Delta Math) + 2) Open Maffiddle Exponents link 3) Graphic Organizer notes for Exponents 4) CYU Exponents- Document https://docs.google.com/spreadsheets/d/14yF-UXIoluBwjJ75ykbsTWIUy3dP2wFfIId3qwZ57R0/edit#gid=1622682614	These sets of problems are for students to work through a Abby Bates	notes layout included in slides

xponents)	https://docs.google.com/document/d/1sVkhtHn00KVEPAkubjttPkLahjNBPpQnRl4-ewDJxdw/edit?usp=sharing	Teacher created; inspired by/problems adapted from IM 8th Grade, Unit 7.6.	Mackenzie Hawkins	
	https://docs.google.com/document/d/13etTDj79S_QUbwcEmLCYrerh9NcvBHkNP78fTgujPGo/edit?usp=sharing	teacher created	Jason Ayers	
Lesson plan includes lir	Perfect Squares lesson link	The first activity before the thin slice is based on the Perfectly Imperfect listed above.		
Lesson plan includes lir	Exponent Rules lesson link	Why are questions 5 & 8 missing?	Deborah Harper	
Scientific Notation to a	https://nailstonesequence.com/index.php/2022/04/11/exponents-and-scientific-	This is a work-in-progress: I'm up to lesson 3 so far.	Hannah Frederick	
ar Equations 8.EE.B				
	https://docs.google.com/presentation/d/1y6zmDeU8gpVq2BlNK6DcJhtGjZtIHwlAA9NWMlSWCL4/copy	I created these slides during COVID. Take from them wh	Justina Erre	This is just a Google Slide with
	https://docs.google.com/presentation/d/12Cs-xEtYy-rNPoSIHbJsE7CzwR3SgTLRmD4rCI-W_4o/edit#slide=id.g1bcd67f2606_0_0	I used this question the first time I implemented BTC last	Kandace McCoy	
	https://docs.google.com/presentation/d/1AUljx77rwrMpooiDlFYvamsSmNGuHW4YpNk2Zskn154/edit#slide=id.p	From the Textbook: Discovering Algebra, An Investigative	Dana Carie	
	https://www.fawnnguyen.com/teach/barbie-bungee	Credit to Fawn Nguyen **Needs a password to access**	Liz Knutson	
Thin slicing - students c	Deriving the Slope Formula	Teacher created	Michael Hayashida	

Two-day lesson. First d	Discovering y = mx + b	Teacher created	Michael Hayashida	
EE.C				
ove)	https://docs.google.com/document/d/1CGAw4wNCKzbNEJ6KlihlfPxoBEylU-hUWJVFI1fZFI8/edit?usp=sharing	Thank you @Alanna for your thin slicing lesson. This is a variation of the same task but it starts with one-step equations. We a		
	http://slamdunkmath.blogspot.com/2013/11/solving-systems-with-manipulatives.html?m=1	Grade 6/7 content, but could be used to scaffold equation from Alex Overwijk	Abby Bates Abby Bates	
Increasingly more chall	https://docs.google.com/document/d/1fbreRm2tZIErQrk8PCYSB2L5jpzvxTkWFDREFIh18JE/edit Slideshow with instructions for students	Talk through: 2x=6, then 2+x=6, then 2-x=6, then x/2=6, a	Alanna Lindahl	
	https://docs.google.com/document/d/1QHiaRRBCwcLMLVsSErSLGSDOSfmWOdKLtGBo0xruFbE/edit?usp=sharing	Teacher Created	Amanda Cloutier	
	https://docs.google.com/presentation/d/1V26w-2_bNSM7KYlqf9AktFisBybp36RnWRpw2wjnqJo/edit#slide=id.ge6cd5dd4c2_0_4	teacher created	Dana Carie	
ons	https://docs.google.com/presentation/d/1PzOtfp85z_cXtNapmaerWCwj6tbkkFfY90gnCybk4sA/edit?usp=sharing	teacher created	Dana Carie	This is actually one solution, no
	Solving Linear Equations	teacher created	Erica Cross	

	https://hailstonesequence.com/index.php/2022/04/11/my-favorite-problem-for-launching-a-systems-of-equations-unit/	My blog post explains how + why I use this problem (from	Hannah Frederick	
	https://drive.google.com/file/d/1RQBx5c_MNL6dFY6BMbt29JEcyEKmiHnl/view?usp=sharing		Justina Erre	
	https://drive.google.com/file/d/1OMhu-5X5EMB_0HPPqjV4Yrf7sS6TXQVc/view?usp=share_link	teacher created	Justina Erre	
	Equations Splat	Teacher Created	Mackenzie Campbell	
	https://docs.google.com/forms/d/17LQQmmVVgWdtKmOu7boW9frIRw6IJVe9NPxrowx3M-U/copy	teacher created	Mickie Gibbs	It says it was deleted
	https://docs.google.com/presentation/d/1VhXdk96rPbyh0vxLQ205mWJIcQX56a4JjbWoQWi7mFY/copy	teacher created	Mickie Gibbs	I can't view these without a goo
	https://docs.google.com/forms/d/1YobB9dOx17bILyKTsKd1Xvoga_Gdi7B6iF6fOAog6Uo/copy	teacher created	Mickie Gibbs	
	sentation/d/1UOVbBsM15YN6oTwP-C5os-3wEUNSAZ4uCfr8NWo07f0	teacher created	Mickie Gibbs	A google form- great!
	Standard Form to Slope-Intercept Form	teacher created	Sarah Forst	
Increasingly more diffic		Teacher Created	Wilma Marrero-Crespo	

	https://docs.google.com/presentation/d/1gL5WfchJ3HaAk0nM5bXUpxrkR_6Rp1ZOZsSUGbDX_kg/edit#slide=id.ge7d33d553e_0_32			
	http://tasks.illustrativemathematics.org/content-standards/8/G/A/tasks/1200	from Illustrative Math		
	https://www.teacherspayteachers.com/Product/Mixed-Transformations-Practice-with-Maps-8062654?st=a804b1089aad073dd342535a901967c8	This activity is from TpT. Will be using this to launch into	Angie Mezera	
	https://docs.google.com/document/d/1pmBOtwewTUBGrTreBgwl3sPiYEyVXCVV/edit?usp=sharing&ouid=108445979134301449558&rtpof=true&sd=true		Angie Mezera	
	https://robertkaplinsky.com/work/ms-pac-man/	See also the different versions from other teachers that R	Anna Clark	
	slidesgo	teacher created	Dana Carie	
	https://docs.google.com/presentation/d/1qZG0TBbOISy7p_tFUpUyylsh8lb99AVZMWDIOtCeAMI/edit?usp=sharing	teacher created	Dana Carie	
	https://docs.google.com/presentation/d/15cGQPES_nXM4nRiI1YIbuvi4HtfAhMZ6U7P3NHpicEE/edit#slide=id.g	teacher created	Dana Carie	
e)	https://www.openmiddle.com/transformations-shortest-sequence/	This is from the Open Middle website. What I like about this task is that they offer another task with the same images where they are to do the same transformation using three movements. This could be a perfect extention.	Dana Carie	

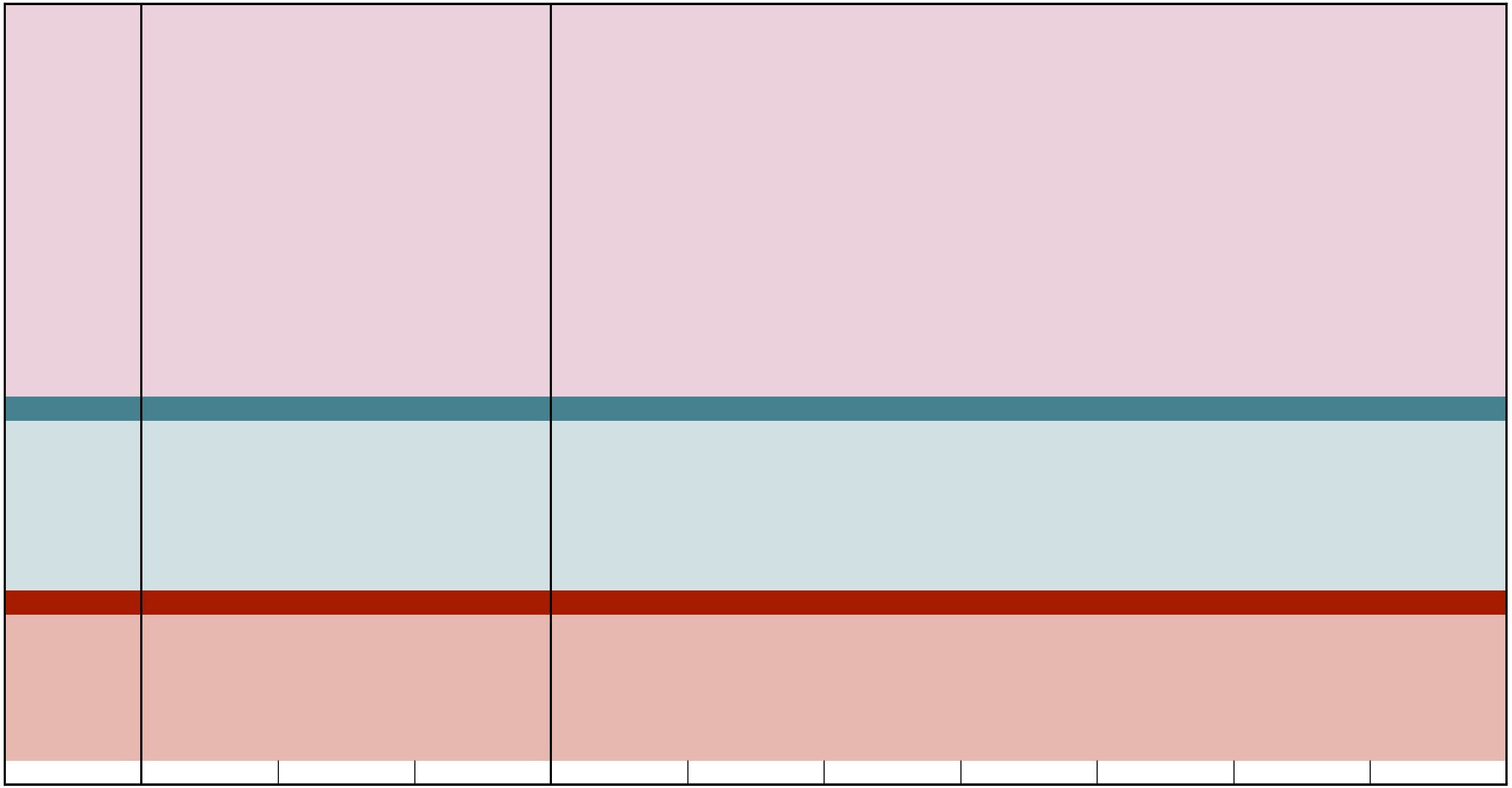
	https://docs.google.com/presentation/d/1K9GWiGbCPrCORYqg0PCdRfESiH1PInk1iANeIuvn078/edit?usp=sharing	teacher created	Dana Carie	
	https://docs.google.com/document/d/1sVkhtHn00KVEPAkubjttPkLahjNBPpQnRl4-ewDJxdw/edit?usp=sharing			
	https://www.openmiddle.com/similar-shapes/	from the Open Middle website	KatieJo Serrano	
	https://teacher.desmos.com/activitybuilder/custom/5e90afb80a08a46c84c6abef?collections=5ef6213159c56d4ca8030e60&fbclid=IwAR2MJVBjPpDGWyUVCWq7GeiLYrUrK-TqqK0onbTLLavwzvK8dy6Yrnl28nk			This link isn't Pythagorean Thm
Pythagorean Theorem		Reproduced from the book (p.34). Added teacher's exten	Guy Picard	
Train Problem	Expanded Tracks - Pythagorean Theorem	From Jim Matthews, Siena College	Tom Fisher	
thin slice progression, r	Full Lesson Link	Thin Slice based on Taylor Lord's Increasingly Difficult Pr	Deborah Harper	thank you
	Ant Pythagoras Problem	Shared by @traciteacher from her NCTM presentation (sl	Abby Bates	
	http://slamdunkmath.blogspot.com/2013/04/26-squares.html	From Al Overwijk on his blog.	Abby Bates	
	Discovering the Pythagorean Theorem	From MathShell.org	Abby Bates	
	https://drive.google.com/drive/folders/1vxpWrk6ycuL4_R3m6f5kp-Smj4L5SCQ4?usp=sharing	5 presentations that lead students from finding areas, to f	Jessica Throolin	

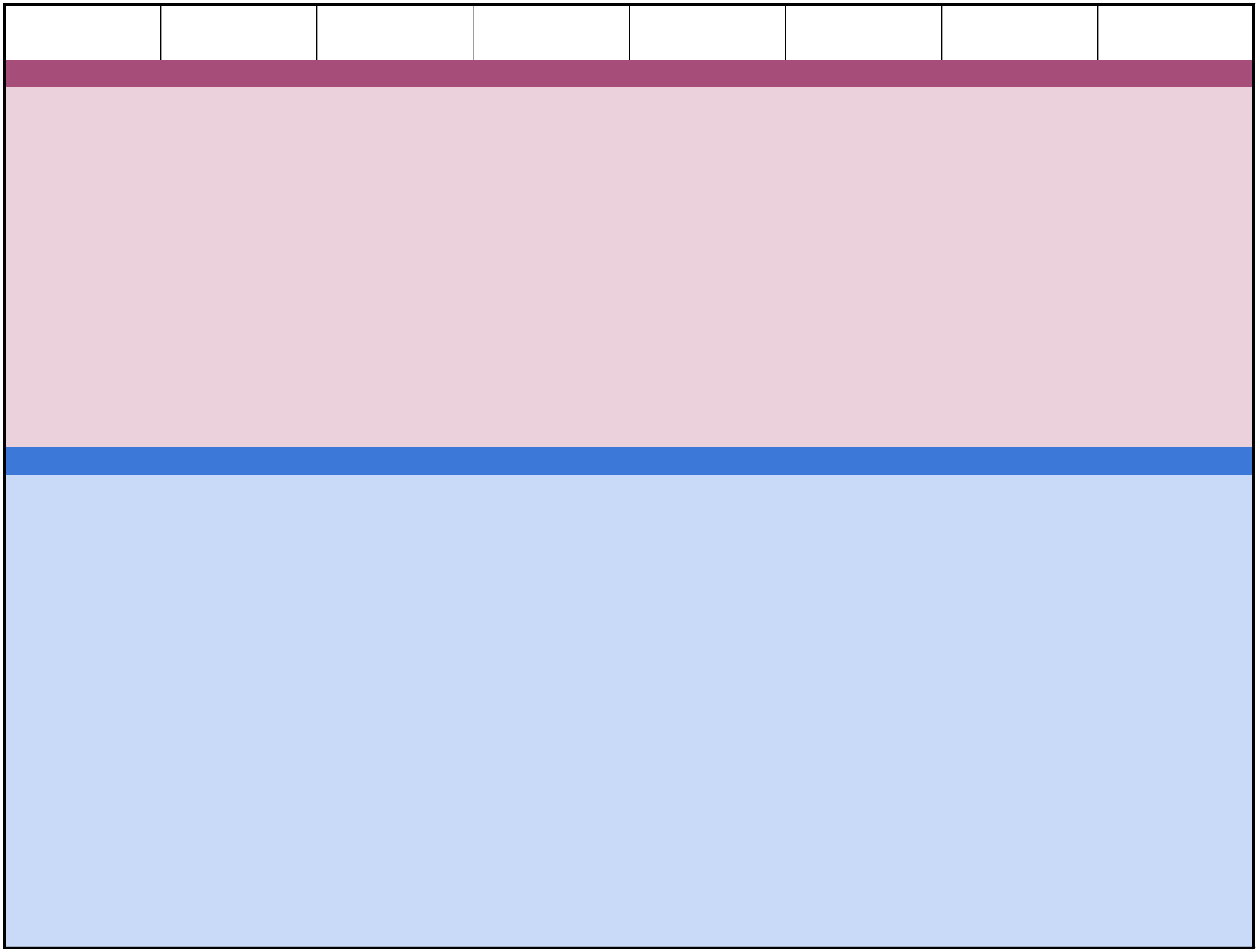
Expanded Tracks - Pythagorean Theorem	Pythagorean Thin Slice	Desmos activity first. On the first slide, I had half of the students make an acute triangle and half make an obtuse triangle. After doing each slide through ten, on slide 11 we analyzed the acute triangles and the obtuse triangles. I skipped the remaining slides after 11. At the end of the Desmos activity, students knew the relationships between the squares and side lengths for acute, right, and obtuse triangles. Then, we did the problems in the document at white boards. During the activity, I encouraged students to draw diagrams to represent the triangles or application problem.		Jason Ayers		

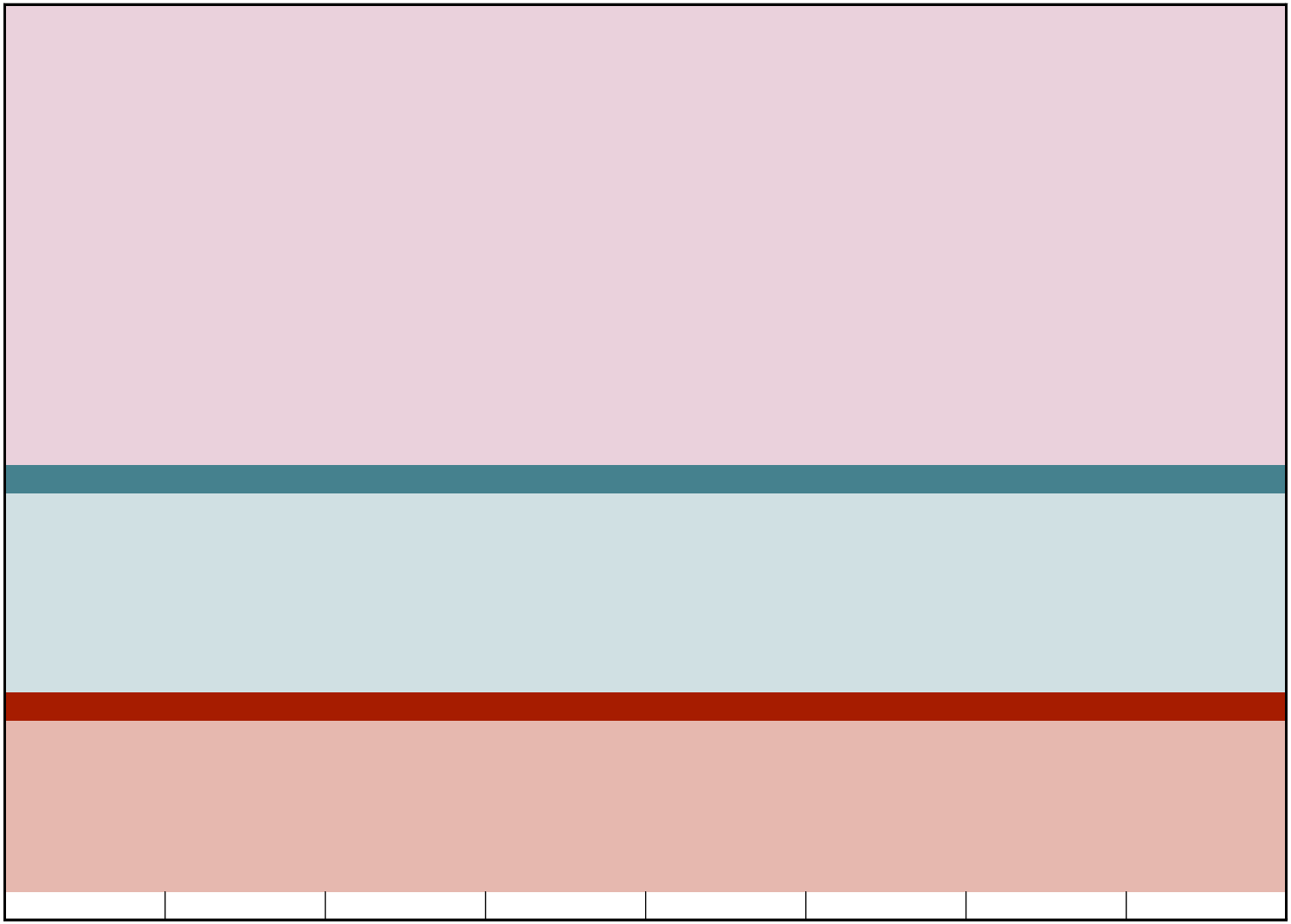
tasks. I'll move my other tasks over break.

also added a blank line so students can be given a set of equations to solve (cut the handout into strips) one at a time.		
solution, and infinite solutions.		

gle account. Can you please change the permissions? We are a Microsoft school.







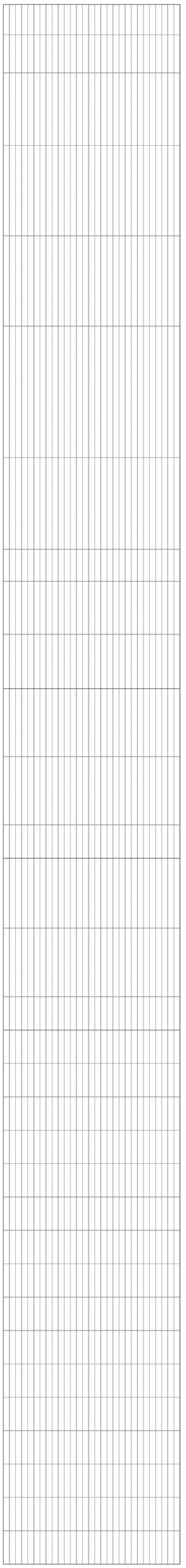
	Math 1/Algebra 1	Topic	Type of Resource	Task	Description	Link to Task (include intro script if possible)	Comments/Notes	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By	
	Math 1/Algebra 1	Data Analysis and Statistics		"Insta-Famous" (Scatterplots & Lines of Best Fit Task)	Task for introducing lines of best fit; has students graph data on a scatterplot, discuss relationships/correlation, estimate a line of best fit and compare to others, and closes using technology to check student estimated lines of best fit	"Insta-Famous" Task	Includes Scripted Intro, Task Progression (including recommended Threshold and Extensions), Possible Leveling Discussion Questions, & Closure Activity	Brianna Frerich							
	Math 1/Algebra 1	Data Analysis and Statistics		Measures of Central Tendency	Mean, median, mode, range thinking tasks	Link to Google doc	Adapted from Lisa Sullivan Maneeley's post in the Facebook group	Dana Harrington dharrington@wmhsd.org							
	Math 1/Algebra 1	Data Analysis and Statistics		Scatterplot Generator	For Randomly generating scatterplots with lines of best fit			Deborah Harper							
	Math 1/Algebra 1	Data Analysis and Statistics		Scatterplot Unit	This module/unit is being developed for students who have already learned linear functions	https://drive.google.com/drive/folders/1fZTUqP4SVIxBJcP39tu-Y3rnoVjE64Q1?usp=sharing	"Staircase" refers to thin slicing. "Task" refer to in-class tasks. "CYU" is a check your understanding handout Graphs have been stripped of their context and labels, and slowly more data is revealed	Nathan Woodward							
	Math 1/Algebra 1	Data Analysis and Statistics		Slow Reveal Graphs	Can be used to show bias interpretation, extrapolation	Resources for the Classroom – Slow Reveal Graphs		Jan Leslie							
	Math 1/Algebra 1	Data Analysis and Statistics		Statistics Unit--Navigational Instrument	Navigational Instrument for use with a Statistics Unit	Statistics Unit--Navigational Instrument		Brianna Frerich							
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Positive, Negative, and Zero Exponents	Smudged math/thin slicing	https://docs.google.com/document/d/1JSJdnqKUnAsaLnMfu9wkD-erSaxYkCxGlkN17CwCfwT6U/edit?usp=sharing	Teacher Created	Don Newman	Positive, Negative, and Zero Exponents (stage 2)	https://drive.google.com/file/d/1ur1ZLFT4qDCMmr5822_2KHPfem6LAHsMHA/view?usp=sharing	Don Newman				
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Postive/Negative bases and exponent of 0	Note making stage 1 - based on Aug 7 zoom call with Peter	https://docs.google.com/document/d/1n8Tq-NdrX_TRcnHVe0CydzSD3D4mtwID_TIYgSpqo/template/preview	Teacher Created - Base	Michelle Muggridge							
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Postive/Negative bases and exponent of 0	CYU - Exponents	https://docs.google.com/document/d/1EGbvpE7tpF_dy5ANS2TH6RwCcRyp7tz5mD4_hVeRh4/template/preview	Teacher Created - Base	Michelle Muggridge							
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Postive/Negative bases and exponent of 0	Thin Slicing/Smudged Math - Exponents	https://drive.google.com/file/d/1QPhL8HEi7erIM76WHL8-6KYR1nVBCU/template/preview	Teacher Created	Michelle Muggridge							
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Postive/Negative bases and exponent of 0 (FRENCH)	CYU (FRENCH) - Exponents	https://docs.google.com/document/d/1EGbvpE7tpF_dy5ANS2TH6RwCcRyp7tz5mD4_hVeRh4/template/preview	Teacher Created - Base	Michelle Muggridge							
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Power Exponent Laws	CYU - Power Exponent Laws	https://docs.google.com/document/d/1dBmD8Ox8iEi-49pmB6C7SUDwY3FzSL3UYY3U50UXdrge/template/preview	Teacher Created - Base	Michelle Muggridge							
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Power to a Power and Product and Quotient to a Power Laws	Smudged math/thin slicing	https://docs.google.com/document/d/11uDcS9WgMZ4dZvqpnaL4DeLOkSFHYu6X91YJYBlfmfy4/edit?usp=sharing	Teacher Created	Don Newman	Power to a Power and Product and Quotient to a Power Laws (stage 2)	https://docs.google.com/document/d/uRPHYuJtTjE0TWO-kMsb_Y8SKWTDa20N/view?usp=sharing	Don Newman				
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Powers and Exponents Navigation Tool	Gr 9 (NS, Canada) - used to track assessment	https://docs.google.com/document/d/1HWQhAnTN08YxHT3ZMvznOcdN2kL4tWoTqLCDhdrsQM/template/preview	Teacher Created	Michelle Muggridge							
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Powers of Ten	Thin-slicing - Powers of 10	https://drive.google.com/file/d/1bIlbPEM_9eCHtng3jSFMZ8_dp0KPpTX/template/preview	Teacher Created	Michelle Muggridge							
	Math 1/Algebra 1	Number & Operations (Exponents, Radicals, Rational/Irrational)		Powers of Ten	CYU - Powers of 10	https://docs.google.com/document/d/1tuH9LPABS7QOfcF1YJt_eTNDcYXwtNFsucp3coETtHQ/template/preview	Teacher Created - Base	Michelle Muggridge							
	Math 1/Algebra 1	Full Year Resources		Activity Tracker			Shared by Laura in the Building Thinking Classroom practice	Abby Bates							
	Math 1/Algebra 1	Full Year Resources		Curriculum Map & Tasks	Full year of problem-based curriculum tasks from Emergent Math.			Abby Bates							
	Math 1/Algebra 1	Full Year Resources		Dr. Austin Maths - Algebra	Algebra worksheets that are great for thin slicing	https://www.draustinmaths.com/algebra		Tom Fisher							
	Math 1/Algebra 1	Full Year Resources		Meaningful Notes Non-Specific Graphic Organizers		https://docs.google.com/presentation/d/1nMvKlR9WbmWYwAcQe0JFB7NnA5N95190B_0fUY-1460/edit#slide=id.p	teacher created	Dana Carie							
	Math 1/Algebra 1	Linear Functions and Inequalities		Graphing in Slope Intercept	This thin slicing activity is done after writing in slope intercept form.	https://docs.google.com/presentation/d/1oIPNS5RPDhLqanDdKlc1RvNYOr_nt8tQ80Xnmgh0/copy	Notes to use - https://docs.google.com/presentation/d/1e7lQvkEUoIlrCJ9CqGorIdxk1zz4qmbWs2l_mdymC80/copy	Tessa Childers							
	Math 1/Algebra 1	Linear Functions and Inequalities		Graphing in Slope Intercept Form	Thin slicing. Graphing line given equation in slope intercept form. Graphing on VNPS required	https://docs.google.com/document/d/1FUVFFfKDYqCNihKZ7lsJpWuTDpG7P5QFAXY8Y-UC8U/edit?usp=sharing	Teacher created	Don Newman	Graphing in Slope Intercept Form (stage 1)	https://drive.google.com/file/d/1jKoHs0MYeha-Qsraiygb016ICDYpNZE/view?usp=sharing	Don Newman				
	Math 1/Algebra 1	Functions, Linear Equations and Inequalities		Graphing Linear Functions Thin Sliced Task	Thin sliced task leading students through graphing linear functions when given just a slope and y-intercept into graphing in slope-intercept form; ends with the identity function to discuss "invisible 1" slope, 0 as a y-intercept, and An activity that draws connections between graph/table/equations, and lets them look at the difference between linear equations and non-linear. They find a relationship between all x and y-values in a table, and have to write an equation to match that description.	Graphing Linear Functions Thin Sliced Task	Includes 10 Challenge Levels and 2 Parallel Questions Strings	Brianna Frerich							
	Math 1/Algebra 1	Linear Functions and Inequalities		Graphing Linear/Non-Linear Relationships											
	Math 1/Algebra 1	Linear Functions and Inequalities		https://teacher.desmos.com/activitybuilder/custom/6334b4d4480b2b4fabc025643	Notes To My Future Forgetful Self	https://drive.google.com/file/d/1A_mPKo_N7UIaiTnWz0hOskuBHlVlgvob/view?usp=sharing	Teacher created	Todd Nelson							
	Math 1/Algebra 1	Linear Functions and Inequalities		Identifying & Interpreting Key Features of Linear Functions Task	Task with scripted intro moving students through graphing points on a coordinate plane to identifying the key features (x- and y-intercepts and slope) generally, then finally pushing students to apply this knowledge to interpreting those key features in real world scenarios	Identifying & Interpreting Key Features of Linear Functions Task	Includes Scripted Intro and Task Progression (including recommended Threshold and Extension)	Brianna Frerich							
	Math 1/Algebra 1	Linear Functions and Inequalities		Identifying Functions	Start class with examples/non examples of functions, then do the "Function Auction"	https://mathequalslove.net/function-auction/?fbclid=IwAR0kV5q9QnBH50wYAsZ8FBwmN7NfnQEpE_dSRcmDPInfreyaLYgKuo7g									
	Math 1/Algebra 1	Linear Functions and Inequalities		Ind/Dep variables - Note	Using summer 2023 template	https://docs.google.com/presentation/d/1P1hvuUSDOMkqEhNPvqCG_LAQaZDzMxdc5U-X3zRUg/template/preview	Teacher Created	Michelle Muggridge							
	Math 1/Algebra 1	Linear Functions and Inequalities		Independent vs Dependent Variables	Distinguish between ind/dep variables	https://docs.google.com/document/d/1bkCJ2FauBzGOSBdejCa8YUqdOBMuAeRJ-oQN_ZQD18M/template/preview	Teacher Created	Michelle Muggridge							
	Math 1/Algebra 1	Linear Functions and Inequalities		Interpreting Rates of Change Task	Task with scripted intro scenario pushing students to justify and explain their use of self-selected data representations for linear functions; encourages different modes of engagement as students defend their chosen representation to other groups or teacher; students are also asked to identify y-intercepts, calculate rates of change, and interpret both in terms of the given context; extensions include opportunities for students to predict x-intercept and interpret it in context, as well as to determine appropriate domain for a real-world context and make use of the "Creating" mode of engagement	Interpreting Rates of Change Task	Includes Scripted Intro and Task Progression (including recommended Threshold and Extension); **THIS TASK PLAYS WITH THE DIFFERENT MODES OF ENGAGEMENT**	Brianna Frerich							
	Math 1/Algebra 1	Linear Functions and Inequalities		Intro to Continuous Domain and Range	Slides to transition from discrete (assumed background knowledge) to continuous as intro before thin-slicing	https://docs.google.com/presentation/d/1KZYmqTdS9RuNgYoBCl_dmLlu5Q3dWqkh8DqpGI_0/edit?usp=sharing	Teacher Created	Jessica Geraci							
	Math 1/Algebra 1	Linear Functions and Inequalities		Introduction to Arithmetic Sequences	Thin slicing. Intro to arithmetic sequences, identifying the common difference	https://docs.google.com/document/d/1tTHFJ0yr13_0tYOKDVDqOCcRZ-d9cfh1HWJXd_Kh/edit?usp=sharing	Teacher created	Don Newman							
	Math 1/Algebra 1	Linear Functions and Inequalities		Linear Equations	A task to find the value of IN-N-OUT burgers with different numbers of patties, create an equation to show the relationship, and graph the relationship. Adapted from Robert Kaplinsky.	https://docs.google.com/presentation/d/1jPILVqsmEsJ7_WBH2HYedN145koF3Dt4s75aua_Q/copy	https://robertkaplinsky.com/work/in-n-out-100-x-100/	Robert Kaplinsky / adapted by Terra Inman							
	Math 1/Algebra 1	Linear Functions and Inequalities		Linear Functions Unit	A Google Drive Folder than includes a Google Doc "Linear Equations" and corresponding CYUs. The Google Doc has a series of thin-sliced tasks (with intros) for a unit on linear function that emphasizes using tables to reason from context, modeling functions, including slope, and also non-contextual graphing equations in slope-intercept form. This is a very rough draft and my working document, so it is subject to change.	https://drive.google.com/drive/folders/15zxsDAuyOO-ZtwQTynnZZ7TXdszbgAq?usp=sharing									
	Math 1/Algebra 1	Linear Functions and Inequalities		Linear Functions Unit--Navigational Instrument	Navigational Instrument for use with Linear Functions Unit	Linear Functions Unit--Navigational Instrument		Brianna Frerich							
	Math 1/Algebra 1	Linear Functions and Inequalities		Linear/Non-linear - Note	Using summer 2023 template	https://docs.google.com/presentation/d/1QMUUpXDZ3-qtynSbh3DIDwRwSudp7yKFVmQO-ekV70/template/preview	Teacher Created	Michelle Muggridge							
	Math 1/Algebra 1	Linear Functions and Inequalities		Function Notation	Introduces f(x)=C and f(ax) notation through thin slicing and some self-checking. Incorporates linear and quadratic functions.	https://docs.google.com/document/d/10Ai6gSF0U4ZHOHT4-1Jmf7AZBBNGtYobbu1H8R-pHe/edit?usp=sharing	Teacher created	Barbra Steinhurst							
	Math 1/Algebra 1	Linear Functions and Inequalities		Function vs Non Function thin slicing	Label as function or non-function based on previous Notice and Wonder activity	https://docs.google.com/document/d/1l7LThy56zvf66CWCNuWDsfVzWaLqSsQMUf53pukeEI/template/preview	Teacher Created	Michelle Muggridge							
	Math 1/Algebra 1	Linear Functions and Inequalities		Functions - Note	Using summer 2023 template	https://docs.google.com/presentation/d/1NOBpkwN8HkJ3kkMu1wYTxXf2QCPQxq9l0dNjo38H0w/template/preview	Teacher Created	Michelle Muggridge							
	Math 1/Algebra 1	Linear Functions and Inequalities		Writing Equation in Slope Intercept	Ss have reviewed slope and discovered where it is located in the equation; same for y-intercept	https://docs.google.com/presentation/d/1B1QEUEVYxNT1DWZMuUARoFPWaLM3OEaqhVf8eOxzvo8/copy	Notes to use - https://docs.google.com/presentation/d/1e7lQvkEUoIlrCJ9CqGorIdxk1zz4qmbWs2l_mdymC80/copy	Tessa Childers							
	Math 1/Algebra 1	Linear Functions and Inequalities		Writing Linear Equations Task	Task with scripted intro leading students through writing linear equations in slope-intercept form when given a graph, two points (some with y-intercept, some without), and a description of the linear relationship	Writing Linear Equations Task	Includes Scripted Intro and Task Progression (including minimal Extension)	Brianna Frerich							
	Math 1/Algebra 1	Linear Functions and Inequalities		Writing Slope Intercept Form	Thin slicing. Writing Slope Intercept Form given two points	https://docs.google.com/document/d/1unWW8KwTzP6G-d3qY9-XMV0YK3vVfbBOtsrPyo_cW1Y/edit?usp=sharing	Teacher created	Don Newman	Writing Slope Intercept Form (stage 1)	https://drive.google.com/file/d/1iTanuRVAybPfE7o1eewFSufc85-Z1dT7/view?usp=sharing	Don Newman				
	Math 1/Algebra 1	Linear Functions and Inequalities		Writing System of Inequalities	Task/ Problem Solving: Customer has limitations on what can be ordered at a restaurant. Students are asked to find the different combinations using a system of inequalities.	https://drive.google.com/file/d/1opCSrGnkeLy6GavOqvNOXRvR6wFUlOaw/view?usp=sharing	I thought this was a VaDoE performance task but can't find the original document. Notes	Christy Berman							
	Math 1/Algebra 1	Linear Functions and Inequalities		Zeros of a Function	Thin Slices	https://docs.google.com/presentation/d/12eUHSOxGl_9qZJJaCKO3DcUH_dUHJvW5PJqZcoBOYw/edit?usp=sharing		Jessica Geraci							

	Math 1/Algebra 1	**Functions- Intro & Key Features**		Identifyng Key Features of Functions	This activity was originally created as a pixel reveal puzzle. As answers are typed in correctly, the cell turns green and the picture reveals itself. 40 problems broken into 4 teams. Activity can be assigned to whole class, by teams, or individually. A set of Google Slides have also been included with all 40 problems that can be printed and taped to VNPS so students can work together, then type into the Google Sheet to check accuracy.	Red Carpet Premiere [Sheet - Pixel Reveal] Problem Slides for VNPS	Teacher created	Amber Riel					
	Math 1/Algebra 1	**Functions- Intro & Key Features**		Snatch It Match It Systems of Inequalities	Good activity for a CYU. INSTRUCTIONS: https://docs.google.com/document/d/14cb0GyRUR3XcKFAmOS0TybvN8GNs1mKFRVZaM4Qw/edit?usp=sharing	https://drive.google.com/file/d/1a3mE-wpB8EkyHLBC0m3UETp-Xhy46jii/view?usp=sharing	Created by me	Karen H. Collins	No longer exists			
	Math 1/Algebra 1	**Number & Operations (Exponents, Radicals, Rational/Irrational)**		Open Middle Problems	Using these for beginning-of-year review of computations and order of operations	Creating Zero (https://www.openmiddle.com/?s=creating+zero) and Order of Operations (https://www.openmiddle.com/?s=order+of+operations)	Open middle tasks are good for multiple grade levels and their website is organized by level or CCSS	Denise Russo				
	Math 1/Algebra 1	**Number & Operations (Exponents, Radicals, Rational/Irrational)**		Radical Exponents	Thin slicing problems introduced by building on previous knowledge of square/cube roots and exponent properties	https://docs.google.com/presentation/d/1BNf0XphcTp2p9MGiwbYjfGr0DkVBlI6ZB-xDo5DwnB/copy	Teacher created	Tessa Childers				
	Math 1/Algebra 1	**Number & Operations (Exponents, Radicals, Rational/Irrational)**		Identifying and working with sequences of numbers.	This is a google sheets activity where I go through the first three lessons of module 3 in Eureka Algebra 1. It begins with various visual patterns, then builds to just some number sequences. It covers 3-4 class periods. I didn't get a lot of practice problems written.	https://docs.google.com/presentation/d/1CvSVFWhhevScy	Teacher created	Sharon Soule				
	Math 1/Algebra 1	**Number & Operations (Exponents, Radicals, Rational/Irrational)**		Imaginary Numbers (basics), thin slicing	This is a thin slicing document that also includes meaningful notes and check your understanding. All solutions are provided.	https://docs.google.com/presentation/d/1UX__OMd_qqQH7MRg8PETWzS3qkAUE8lCPzDaEA7IYKe/edit?usp=sharing	teacher created	Dana Carle				
	Math 1/Algebra 1	**Number & Operations (Exponents, Radicals, Rational/Irrational)**		Integer Addition & Subtraction	Thin slicing problems for addition and subtraction of integers. Students match the expressions to the correct answer. Also created a google form for CYU Questions & slide show.	.	Teacher created!	Emily Latham (@missmathology)				
	Math 1/Algebra 1	**Number & Operations (Exponents, Radicals, Rational/Irrational)**		Integer and Fraction	Thin sliced problems and CYU handouts, for integer operations, multiplying and reducing fractions, and order of operations.	https://docs.google.com/document/d/158XRWihfKXpf6lhgN1CzHEOxg6bxQv/edit?usp=sharing&ouid=106053485084789476927&rtpof=true&sd=true		Nathan Woodward				
	Math 1/Algebra 1	**Number & Operations (Exponents, Radicals, Rational/Irrational)**		Rational and Irrational Numbers Card - numbers systems and quantities	This lesson introduces the idea of rational and irrational numbers. You will need to run a copy of the numbers on card stock. Created by Peter Anderson	https://docs.google.com/document/d/1aNiu8-aNQLynDHZtp1gTNeLzgphmCzcN8uzh7umH/copy	Card sorts can be effective if you let students do the sorting and defending of the sorting. Also, I included a story that also helped engage the students.	Peter Anderson				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Adding and Subtracting Polynomials	Thin slicing	https://docs.google.com/document/d/1a0HlqrGPC1lsGtX_YmeNf65 4pAmpCc8lcnAxDbFNq378/edit?usp=sharing	Teacher created	Don Newman	Adding and Subtracting Polynomials (stage 3)	https://docs.google.com/documents/d/1m1WhG_INO50mPTmsAtEd0Cc6qPKO3aBorDEPHnnNw/edit?usp=sharing	Don Newman	
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Adding and Subtracting Polynomials #2	thin-slicing (for after or continuation of Don newman's sequence)	https://docs.google.com/document/d/1UNxS6WP5yWw6CCG2tnQXY9L43KipdQ/edit?usp=sharing&ouid=109943655100365147753&rtpof=true&sd=true	Teacher-created					
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Classifying Polynomials	Students cut and sort a variety of polynomials with the intention of uncovering classification catagories.	Copy of 4-6 Polynomial Vocabulary and Adding/Subtracting Polynomials		Malia Heimbach				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Classifying Polynomials	Thinking task where students have to create each type of polynomial; I did not create this activity but found on twitter	https://drive.google.com/file/d/14X7oFwUzTD54vh-a0Qaf23Y3rw31nZuk/view	Not created by me; I found on Twitter; I would like to give credit to who I borrowed this from	Tessa Childers				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Completing the Square	Deriving the process of completing the square via thin slicing	https://docs.google.com/document/d/1uGQ6WXtMoZrEOOJ8BcCJe9rZL7PZkT2Nc_OxUk8rsw/edit?usp=sharing	Teacher created	Don Newman				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Completing the Square	Thin slicing problems with irrational solutions	https://docs.google.com/document/d/1ECFeE9KPqYfjZksTzR-hjEzWHCyUnPPJCH5mQCO8o/edit?usp=sharing	Teacher created	Don Newman				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Converting from Vertex Form to Standard Form	Thin slicing	https://docs.google.com/document/d/1snUQscw5_fA8lA2H-sMMO2AepO_0Z4-VLw413-m/edit?usp=sharing	Teacher created	Don Newman				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Domain & Range Thin-Slicing (VA.SOL.A7)	Thin sliced domain and range... starts with discrete relations and builds up to continuous	https://drive.google.com/file/d/1cUBxfpLbdrfpim0_CA5dMmTOYX2eCview?usp=share_link		Jacqui Rhodes				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Exponential Functions Unit–Navigational Instrument	Navigational Instrument for use with Exponential Functions Unit	Exponential Functions Unit–Navigational Instrument		Brianna Frerich				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Exponential Growth	Guess my Number—mash up from BTC + Big Ideas Math	https://tapintoteenminds.com/3act-math/penny-a-day/	Source: Three Act Math	Johanna Batchelder				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factor Special Cases	Thin slicing		Teacher created	Andrea Owings				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factor when a >1 by grouping, Factor four terms by grouping	Thin slicing/smudged math	https://drive.e.com/file/d/1edMpOJh-YPqOCt7kaiRZwx7LP1QI-ha/view?usp=share_link	Teacher created	Andrea Owings				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring (GCF)	Thin Slicing/Smudge Math	https://docs.google.com/presentation/d/1AfnL-pED47AY0xkeGyNOYlAhEYaBdtTdKqCjATk-_4/edit#slide=id.g16b09795b57_0_436	Teacher Created	Ginny Enfield				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring (Trinomials a>1) Guess and Check	Thin Slicing/Smudge Math	https://docs.google.com/presentation/d/1uRA5tk2Tnu0Ju0kGEaqB7Ldl9Pfc-VkSP-RodAVUo7Eg/edit#slide=id.g16e08bc086	Teacher Created	Ginny Enfield				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring ax^2+bx+c by Factoring Out GCF	Thin slicing	https://docs.google.com/document/d/1PeUFzvNhsOWCJ7cQ_vGHeps5GXn0RSB8X-dgkvRNuK4/edit?usp=sharing	Teacher created	Don Newman	Factoring ax^2+bx+c by Factoring Out GCF (stage 3)	https://docs.google.com/document/d/1dRFCKKcJZy77SChuKel0h-lesTKu8PDs7X3SsLzU/edit?usp=sharing	Don Newman	
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring by Grouping - Polynomials with 4 terms	Thin Slicing.	https://docs.google.com/document/d/1QdSOZmOdE3NgxuP1Kq4fSgHZ9TQpzFlTA6PVvJwSR4/edit	Teacher created for community college classroom. Placed after factoring out GCF and before factoring trinomials.	Barbra Steinhurst				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring Difference of Squares	Thin Slicing/smudge math	https://docs.google.com/presentation/d/1gcRnmWk3p1RTbo68MnMt25YVbnwwKRmFQUFEkcOXrf8/edit#slide=id.g16e09ea a090_0_0	Teacher Created	Ginny Enfield				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring GCF Out of a Polynomial	Thin slicing	https://docs.google.com/document/d/1zY9yWWE_ba2kmeMuRBcf_Tn8fNcPs3hzR4RE_l0Ao/edit?usp=sharing	Teacher created	Don Newman	Factoring GCF Out of a Polynomial (stage 3)	https://docs.google.com/document/d/1aP3_CSVlK0n59feJe2zZ4ptp5dBuNlo1BbXTr2yDPAGk/edit?usp=sharing	Don Newman	
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring Introduction	A set of thinking questions / thin slicing building on kid's knowledge of partial products.	https://docs.google.com/document/d/1BRe1ly7Sf5xCBPQJ8E83FTQHe4nr63iw/edit?usp=sharing&ouid=110640535790242514604&rtpof=true&sd=true	Teacher created (try this after my multiplying polynomials task)	Mark Redstone				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring quadratic trinomials when a >1, factor by grouping	Thin Slicing/Smudged Math	https://docs.google.com/document/d/1VQjVZHsFvs8GEx_s6J1NuuBsYaLYaaYXxwaZS9qI2Y/edit?usp=sharing	Teacher created	Don Newman	Factoring quadratic trinomials when a >1, factor by grouping (stage 3)	https://docs.google.com/document/d/1T4O36tey_rkhi_b55Q-_rdw6Ch-vSO8NZPk330aCoA/edit?usp=sharing	Don Newman	
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring Trinomials	Thin Slicing from p. 151 in the BTC book. Includes TS slides, notes, earlier finishers task, and exit slip.	https://ggle.io/5Qm6	Teacher Created	Cheryl Malcolm				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring Trinomials a=1	Thin Slicing/Smudge Math	https://docs.google.com/presentation/d/1Ar1J-UQm7LJ44CGrtqeh7xRVe-U8JMYW__7bAuE/edit#slide=id.g16b0a0d3e9b_0_434	Teacher Created					
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring trinomials when a =1	Thin slicing	https://drive.google.com/file/d/1e5zk7yVtnQ9VJ8opkVQmsHDPPsaqJ6M/view?usp=sharing	Teacher created-- added to task in book	Andrea Owings				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring Trinomials when a#1 using the Slide and Divide Method	Thin Slicing	https://docs.google.com/document/d/1DMqlLdTJhAwHoRSQenJ86bc9cwNdKDULCn2kim8D68/edit?usp=sharing	Teacher Created	Autumn Shuchart				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Factoring x^2+bx+c	Thin slicing	https://docs.google.com/document/d/1Rmqeqfw0ZQ9hd0yAvQdluAO8rT41AC8Me9M00DJdO/edit?usp=sharing	Teacher created	Don Newman	Factoring x^2+bx+c (stage 3)	https://docs.google.com/document/d/1GQqO8V56v5oo64UEpJwsnjnd39Gh4HdxKOo73VENjI/edit?usp=sharing	Don Newman	
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		graphing quadratics	Thin Slicing/Graphing (assumes knowledge of graphing a function by creating a data table)	https://docs.google.com/document/d/1sLi4nFEqbkRF7RtTnLiMbMBpZxcDTyM-I7ZMB/edit?usp=sharing	Teacher created	Don Newman	Key Features of Quadratic Functions (stage 4)	https://docs.google.com/document/d/1tM5_VJ9aeKqdCmIqzt7gm16Pew178NfhJkXC0Xs/edit?usp=sharing	Don Newman	
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Intro to quadratics: Solving from the graph, solving by factoring, number of solutions	Desmos activity (Thin-sliced ish)	https://teacher.desmos.com/activitybuilder/custom/6447ef1e0d876bc3530b3d7d	Teacher Created, Michael Birkeland, edited by Geraci	Jessica Geraci				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Introduction to Polynomials	Students discover polynomials can be organized and named by the degree and number of terms	https://docs.google.com/document/d/1yogT2mB4RFTz-ZoughbUwKSCr1gnnoRRitTKCkjdDymc/edit?usp=sharing	Teacher created	Don Newman	Introduction to Polynomials (stage 3)	https://docs.google.com/document/d/1HaQKdJuoRt3X__paZXBoqv3UgKGS3iA023_QrwKMKQ/edit?usp=sharing	Don Newman	
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Introduction to simplification of algebraic expressions	Thin slicing	BTC - simplification expressions algébriques.pdf	Teacher created	Étienne Perron				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Lucky Penny - Exponential Growth	Comparison of different ways to get paid involving exponential growth	https://docs.google.com/document/d/1n2U0ovUlemPlLW12ds--TXoDw5UyNRoVFX5rvPiG4Ik/edit	From Jim Matthews, Siena College	Tom Fisher				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Multiplying Monomial by Polynomial	thin-slicing starting from 3 times a quadratic trinomial	https://docs.google.com/document/d/1T39BWNHkHGy381GdTxpvbFxnUHq-9LsN/edit?usp=sharing&ouid=109943655100365147753&rtpof=true&sd=true2	teacher created	Adina R				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Multiplying Polynomials	Smudged math using cards for students to work through. Script included in separate file (two files total- cards and script)	https://drive.google.com/drive/folders/1mnc-TXTVl2yOmKg4a090vwmu7AlYsjM?usp=sharing	There are two files here- "A1ME 7.2 Task Multiplying Polynomials" and "A1ME 7.2 Task Script"	Andrea Owings				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Multiplying Polynomials	Thin slicing. Intro is a review of distributive property and multiplication law of exponents	https://docs.google.com/document/d/11kwQR2llkRMbCjN59fdZHYfPNmA18jxo2L8HQE-oQ/edit?usp=sharing	Teacher created	Don Newman	Multiplying Polynomials (stage 3)	https://docs.google.com/document/d/1M-oaOvY8Ddd4dNqsUZJRsafCgoxM4wLlns5HNl85U/edit?usp=sharing	Don Newman	
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Multiplying Polynomials	A set of thinking questions / thin slicing building on kid's knowledge of partial products.		Teacher created	Mark Redstone				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Multiplying Polynomials	Thin slicing after intro with table method using 15*18 compared to (x+5)(x+8) then compare with distributive method to table method	https://docs.google.com/presentation/d/19s-EAqeKJaW8Wrpb78pZChnh2ty1bQoAwaWnYZq3Y/copy		Tessa Childers				
	Math 1/Algebra 1	**Quadratic and Exponential Functions, Polynomials**		Naming Polynomials	Students are given 20 polynomials and asked to sort them. They discover they can be grouped by highest exponent (degree) and number of terms	https://docs.google.com/document/d/1A5p2U3ZvFnsFaYvvLU3PMAMh-jEjmRu2-me7MJqPjU/edit?usp=sharing	Teacher created	Don Newman	Introduction to Polynomials (stage 3)	https://docs.google.com/document/d/1HaQKdJuoRt3X__paZXBoqv3UgKGS3iA023_QrwKMKQ/edit?usp=sharing	Don Newman	

	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Newspaper Math - Intro to Exponential Growth	Activity to get students interested in exponential growth	https://docs.google.com/document/d/17fLOMncBsEUUHPVjbrB7yGVGZKP4JjQwP4pLNb7q58Q/edit	From Jim Matthews, Siena College	Tom Fisher					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Polynomial Vocabulary and Adding & Subtracting Polynomials		Copy of 4-6 Polynomial Vocabulary and Adding/Subtracting Polynomials		Stefanie.frey@ccboe.net					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Polynomials Navigation Tool	Gr 9 (NS, Canada) - used to track assessment	https://docs.google.com/document/d/1ma8gBm07UXT46dYBnPpfNhXowEbtCnUPOvxwlgk/template/preview	Teacher created	Michelle Muggridge					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Polynomials: Represent perimeter and area of rectangles creating polynomials.	Leveled Questions: Mild, Medium, Spicy, Diablo (includes subtracting polyno.ial practice)	https://docs.google.com/document/d/1dooUzwHyNbB4Ks2q5zQKbbdJogukQXJWbjBFXDBck/edit	Teacher created	Lori Thomas					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Polynomials Unit--Navigational Instrument	Navigational Instrument for use with Polynomials Unit	Polynomials Unit--Navigational Instrument		Brianna Frerich					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Cycling Squares	Knowledge of perfect squares	Nrich Cycling Squares							
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Quadratics Unit--Navigational Instrument	Navigational Instrument for use with Quadratics Unit	Quadratics Unit--Navigational Instrument		Brianna Frerich					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Simplifying Radical Expressions	Thin slicing	https://docs.google.com/document/d/1KHFCuWfvAj3ST21Cgvpt4agTPBHBy2M1MaIQNp0KcTJU/edit?usp=sharing	Teacher created	Don Newman	Simplifying Radical Expressions (stage 4)	https://docs.google.com/document/d/1v5 4EnGHQCZ3qPAzQ6VvSZ1hoWfqmwvoonAw8AeHBunA/edit?usp=sharing	Don Newman		
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Solve by Factoring	Thin Slicing/Smudge Math	https://docs.google.com/presentation/d/1sxtn-DCTKX0U8_Z4CAH4vy7iWaExzMeOuQupuoqGKIQ/edit#slide=id.g16b08b08ddf_0_0	Teacher Created	Ginny Enfield					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Solve by Square Root Principle/Completing the square		Google Doc version of Sharons problems	added Mathigon lesson for completing the square	Kim Scott					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Solve Quadratics with the Quadratic Formula	Thin Slices. Assumes knowledge of standard form of a quadratic.	QF Thin Slices		Jessica Geraci					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Solving Quadratic Equations by Factoring	Thin slicing	https://docs.google.com/document/d/1kBVO-CxQ4NWOXr5RA9QCrF3L_bonkFmOkXT-ffvCBaao/edit?usp=sharing	Teacher created	Don Newman	Solving Quadratic Equations by Factoring (stage 4)	https://docs.google.com/document/d/1A-DC_tvRY2D4GUJqFnMkgwLUjeT4R8EkKmE7Qsxeg/edit?usp=sharing	Don Newman		
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Solving Quadratic Equations by Using Square Roots	Thin slicing	https://docs.google.com/document/d/1UfJ9eYj8H3rYHpoL7BW_2qveFYQIR74vZtRr56pu8_E/edit?usp=sharing	Teacher created	Don Newman					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Solving quadratic equations--developing the quadratic formula	Four days of thin slicing that start with simple x^2 = a number through completing the square until students finally derive the quadratic formula on their own	https://drive.google.com/file/d/1lVCnRRrasvfYB8V04NGo5rSoJ81FFO/view?usp=sharing		Sharon Soule					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Solving Quadratics Algebraically Thin Sliced Lesson	Lesson builds on previous knowledge of solving multi-step equations to guide students to solving quadratics algebraically	Solving Quadratics Algebraically Thin Sliced Lesson	Includes Task Progression (including recommended Threshold and Extension Questions) & Possible Consolidation Talking Points	Brianna Frerich					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Solving Quadratics by Factoring Discovery Task	Task for introducing solving quadratics by factoring; builds on previous knowledge of factoring polynomial expressions and has students move to finding zeros using zero product rule; task featured is an open-ended scenario, having students use the information they gather by solving the quadratic equation to inform a decision about which option is best in the given scenario; encourages students to use math to problem-solve, as well as defend their reasoning	Solving Quadratics by Factoring Discovery Task	Includes Scripted Intro for Critical Thinking Task with no "Correct" Answer	Brianna Frerich					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Standard Form of Quadratic Functions	Thin Slicing/Graphing	https://docs.google.com/document/d/1YLP3Omarr4L4LTMNAdZpxxgcPkWp5VR-GVWB2Rwf&kedit?usp=sharing	Teacher created	Don Newman	Standard Form of Quadratic Functions (stage 4)	https://docs.google.com/document/d/1_nX9rEeBnAWIEWQbpgiupdT27lHHsSs0TW9AW3g/edit?usp=sharing	Don Newman		
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Task: Trouble with Tribbles	Writing and graphing Exponential Growth and Decay Functions	https://docs.google.com/document/d/18AQpvYDNbrnCbvk-wBrVB3bq3ZMaOUfy4L1-_RwVq8/edit?usp=sharing	Teacher Created	Katrina Misley					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		The Quadratic Formula	Derive the quadratic formula by completing the square on the standard form	https://docs.google.com/document/d/1QQk4BGhnCjUUmBb1IE7hYTorCVAPwNkiXKm-1HPmc/edit?usp=sharing	Teacher created	Don Newman					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		The Quadratic Formula	Thin sliced problems	https://docs.google.com/document/d/1y1Si5c-3Zc-emjr5qwp1_TmTb5LS_5AdLVQZNGBTFIEQ/edit?usp=sharing	Teacher created	Don Newman					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Vertex Form of a Quadratic Funtion	Thin Slicing/Graphing (assumes knowledge of translation of functions)	https://docs.google.com/document/d/16JK8tYysv02AKvlnGdEwwXfXJ6QCUBQtahB7Qy5zwE/edit?usp=sharing	Teacher created	Don Newman	Vertex Form of a Quadratic Funtion (stage 4)	https://docs.google.com/document/d/1KFABUoy7CiBVr4dunesrGWdbCFqVELLg5E5wD6SSV9_0/edit?usp=sharing	Don Newman		
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Vertex Form Quadratics (Snatch It Match It)	CYU to match Vertex Form Graphs with Equations nstructions: https://docs.google.com/document/d/14cbGyRUR3XcKFmukcorkBZEx_z7rOX9iCHBLf2b/view?usp=sharing	ACT/MTY:- https://drive.google.com/file/d/1i0Sw76Yrrx7ZTyq_Ut0rer10DiRfzOaHrAG0to2sYe3Whqk/edit?usp=sharing	Created by me	Karen H. Collins					
	Math 1/Algebra 1	Quadratic and Exponential Functions, Polynomials		Vertical Motion (word problems)	Thin slicing	https://docs.google.com/document/d/1sDkeScRDaF2S2Cd9uD6JeCg1-eiWhuE2ZKY/vmR90/edit?usp=sharing	Teacher created	Don Newman	Vertical Motion - word problems (stage 4)	https://docs.google.com/document/d/1UmYfMJA7QE9ekBgkzUzyJL_aB8APCgd9OJBBPETu30A/edit?usp=sharing	Don Newman		
	Math 1/Algebra 1	Sequences		Arithmetic Sequences - Recursive Formula	Thin slicing	https://docs.google.com/document/d/1VM3nVQ8CyZvmqQaf9PXDI3RwNvZwxAeAPBiL2dSmA/edit?usp=sharing	Teacher created	Don Newman					
	Math 1/Algebra 1	Sequences		Arithmetic Sequences - Explicit Formula	Thin slicing	https://docs.google.com/document/d/12jCWQBB_R-8p9JMJBnHMshh9XZCLghHstzV5VN5ICOY/edit?usp=sharing	Teacher created	Don Newman					
	Math 1/Algebra 1	Sequences		Introduction to Arithmetic Sequences	Thin slicing. Intro to arithmetic sequences, identifying the common difference	https://docs.google.com/document/d/1ITHfJ3yrl3_0tYOIGVo	Teacher created	Don Newman					
	Math 1/Algebra 1	Sequences		Arithmetic Sequences - Converting between Recursive and Explicit Formulas	Thin slicing	https://docs.google.com/document/d/1yo3QreDOamu_U0nr10DiRfzOaHrAG0to2sYe3Whqk/edit?usp=sharing	Teacher created	Don Newman					
	Math 1/Algebra 1	Sequences		Arithmetic Sequences - Converting between Recursive and Explicit Formulas	Thin slicing	https://docs.google.com/document/d/1yo3QreDOamu_U0nr10DiRfzOaHrAG0to2sYe3Whqk/edit?usp=sharing	Teacher created	Don Newman					
	Math 1/Algebra 1	Sequences		Arithmetic Sequences - Explicit Formula	Thin slicing	https://docs.google.com/document/d/12jCWQBB_R-8p9JMJBnHMshh9XZCLghHstzV5VN5ICOY/edit?usp=sharing	Teacher created	Don Newman					
	Math 1/Algebra 1	Sequences		Arithmetic Sequences - Recursive Formula	Thin slicing	https://docs.google.com/document/d/1VM3nVQ8CyZvmqQaf9PXDI3RwNvZwxAeAPBiL2dSmA/edit?usp=sharing	Teacher created	Don Newman					
	Math 1/Algebra 1	Solving Equations and Inequalities		One and two step equations	Works through (1) one step equations with natural numbers, (2) two step equations with natural numbers, (3) one-step equations with natural numbers where the solution is negative, (4) both one and two step equations where the answer is positive but there is a negative in the question, (5) both one and two step equations where there are negatives in the question and solution		Teacher Created	Amanda Cloutier					
	Math 1/Algebra 1	Solving Equations and Inequalities		One and two step equations	Guess my Number—mash up from BTC + Big Ideas Math	https://docs.google.com/document/d/1-0ZhUn2D1YNGGdeHG2KTZOebxBwHAghOLH_-9kU/edit	Adapted from BTC	Kristen Moore					
	Math 1/Algebra 1	Solving Equations and Inequalities		One and Two step equations with fractions	Thin slicing problem strings to include fractions	https://docs.google.com/presentation/d/1Duz0Xetk1xqCaaUwVgdlzPo5ad5r6JO2Y12gdmPPDjE/copy	Teacher Created	Angela Ratliff	Link is not functional				
	Math 1/Algebra 1	Solving Equations and Inequalities		One-Step Equations	CYU self-checking Google Form	https://docs.google.com/forms/d/1TLQQmmVqWdtcmOu7boWWfHRw6UVe9NPerowXM-U/copy	teacher created	Mickie Gibbs	Has been deleted				
	Math 1/Algebra 1	Solving Equations and Inequalities		Open Middle Problems	Using these for beginning-of-year review of computations and order of operations		Open middle tasks are good for multiple grade levels and their website is organized by level or CCSS	Denise Russo					
	Math 1/Algebra 1	Solving Equations and Inequalities		Order of Operations	Note making stage 1 - based on Aug 7 zoom call with Peter	https://docs.google.com/document/d/1dZJ7qge_NMnGJfKcl0ddBGdZa5JidDVkTT6TOwNRRZA/template/preview	Teacher Created	Michelle Muggridge					
	Math 1/Algebra 1	Solving Equations and Inequalities		Pentaminos to solving equations	Use pentaminos or cutouts included to start algebra students on a path to solve equations through pattern finding.	https://docs.google.com/document/d/1_FBNUr1tlv0_1Gs6sAeDL7v0OO3PuVb4L-rTRZAo0/edit?usp=sharing	Modified from a similar idea from Make Math Moments	Tringle Witt					
	Math 1/Algebra 1	Solving Equations and Inequalities		Solving Absolute Value Equations	Thin-slicing.	https://docs.google.com/document/d/1TEgUkUBkIcoPS8XlYfZKTDqiws61L6ncTTDZUwKCfKA/edit?usp=sharing	Teacher Created	Todd Nelson					
	Math 1/Algebra 1	Solving Equations and Inequalities		Solving Equations (One, Two, Multi + Absolute Value)	Thin Slicing board work, Assessment Guide	https://docs.google.com/document/d/1FGY3_A1LzmOCHZp0Bmy8qlK0RCaYANkqbr1C38/edit#	Teacher Created	Kristen Moore					
	Math 1/Algebra 1	Solving Equations and Inequalities		Solving Equations Unit Notes (one-step through absolute-value)	Meaningful Notes with learning targets, examples, and CYU. Must download as Word Doc to format correctly	https://docs.google.com/document/d/15lBjxYpWDEdQuMbnHmHf0HBQ-cHf0kdk/copy	Teacher Created	Martha Savaria	Blank template used ->	https://docs.google.com/document/d/15lBQdCmmrw3wRf2ahftNGF_HMJ/edit#/copy			
	Math 1/Algebra 1	Solving Equations and Inequalities		Solving equations with variables on both sides	A number puzzle that could be solved by guessing and checking or algebraically	https://drive.google.com/file/d/1YHE615bbKyAZHbpcuZ1QcqsUqXOARr/view	A problem of the week from CEMC Waterloo	Farr Quinn					
	Math 1/Algebra 1	Solving Equations and Inequalities		Solving Inequalities (add/sub)	Thin Slicing	https://drive.google.com/file/d/1f5dXs_BF2ak2SacDTgVq_cKTRoMuBl/view?usp=sharing	Teacher Created	Todd Nelson					
	Math 1/Algebra 1	Solving Equations and Inequalities		Solving Inequalities (mult/divide)	Thin Slicing	https://drive.google.com/file/d/1T1Q4oKCWGXmBauBz0rGyhvknOJKZvCj2/view?usp=sharing	Teacher Created	Todd Nelson					
	Math 1/Algebra 1	Solving Equations and Inequalities		Two step and Multi-step Inequalities	Thin slicing. Assumes prior knowledge of solving multi-step equations and one step inequalities	1-5 Simple Inequalities	Teacher Created	Don Newman	Simple Inequalities (stage 1)	https://drive.google.com/file/d/1ey-cXAFHscrstPxYFrL-sJDCF9K4Fv3/view?usp=sharing	Don Newman		
	Math 1/Algebra 1	Solving Equations and Inequalities		Two-Step and Multi-Step Inequalities	Thin slicing. Assumes prior knowledge of solving multi-step equations and one step inequalities	https://drive.google.com/file/d/1qteuzjRdhk2_1Sufl8Yxd5WmFHzR-Q/view?usp=sharing	Teacher Created (Thanks, Don Newman)	Todd Nelson					
	Math 1/Algebra 1	Solving Equations and Inequalities		Two-Step Equations	Thin slicing	https://docs.google.com/document/d/1Xm0VwSnDmfBQsck5OX73w1-_06dNH0fDfDXc_UuZM/edit?usp=sharing	Digital version of Don's thin slicing. I use a colored rectangle to cover each set and move it during the lessons as students progress	Teacher created	Don Newman	Two-Step Equations (stage 1)	https://drive.google.com/file/d/1WaybZ6EdGQaqqy01TQqzasCYkcnGsf6q/view?usp=sharing	Don Newman		
	Math 1/Algebra 1	Solving Equations and Inequalities		Two-Step Equations	Thin Slicing	Day 1 page 1 Day 1 Page 2 Day 2	Teacher Created	Jessica Geraci	Two Step Equations	Notes	Jessica Geraci		

	Math 1/Algebra 1	Solving Equations and Inequalities		Two-Step Equations	A review of two-step equations, ending with some Open Middle Problems	https://docs.google.com/presentation/d/1Vhd0k96rPfsyhbvLQ205mWJkzQ05ie4_0bWoQW7mFY/copy	teacher created	Mickie Gibbs					
	Math 1/Algebra 1	Solving Equations and Inequalities		Two-Step Equations	Thin slicing	Alg 1 L2.2-2.3A (TS).pdf	Teacher Created (Thanks, Don Newman)	Todd Nelson					
	Math 1/Algebra 1	Solving Equations and Inequalities		Two-Step Inequalities and Interval Notation	Thin Slicing and Investigation/Notes	Day 1 Day 1 #5 Day 2 Day 3	Teacher Created	Jessica Geraci	Two Step Inequalities	Notes	Jessica Geraci		
	Math 1/Algebra 1	Solving Equations and Inequalities		Variables on both Sides (one sol)	Start with class discussion on solving 3d = 2d - 25; note the last slide has an inf. many sol	https://docs.google.com/presentation/d/1FFSprBLiQ3lKDKcQgrJPEvOD3D_WnIvJbdrWoNBleM/copy	Teacher Created	Tessa Childers					
	Math 1/Algebra 1	Solving Equations and Inequalities		Writing Equations with variables on both sides - context	Real-world task for solving an equation with variables on both sides, includes check-list for strategies and question stems.	https://drive.google.com/file/d/1E-f4aY-YPhoPDtJ43o8NGfZweqATmzNL/preview	From the VA dept of education	Farr Quinn					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solve Systems by Graphing	Thin slicing Task	https://docs.google.com/document/u/1/d/1NSr_scNqKp8C638Hs-c3s-lk8FdUuAuuKiku2ecfk/copy	Teacher Created	Tormes/Hawk/Kembitzky					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Systems RW problem	Task	https://drive.google.com/file/d/1Rr5Pf7vpAVDYhenlc4VB1D2GExy31MIZ/view?usp=share_link	Teacher Created	Tormes/Hawk					
	Math 1/Algebra 1	**SYSTEMS of Equations**		NTMFFS - Unit 5 (Systems of Equations/Inequalities)	Notes To My Future Forgetful Self	https://docs.google.com/file/d/11ukkdry_lbQMNk4cMkXOOyqZTDNvgR5m/view?usp=sharing	Teacher Created	Todd Nelson					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solve Systems using Substitution	Thin Sliced activity	https://docs.google.com/presentation/d/1OTeeUBeu-ovBNNFT3KJBTpjNwWE6rDXe3T3T4Th6w/copy		Tessa Childers					
	Math 1/Algebra 1	**SYSTEMS of Equations**		https://docs.google.com/presentation/d/1GUX1t9ZrXnBYy-	Thin slicing	https://docs.google.com/presentation/d/1xVsNcQRHKCpTNRqA9ffYW0ljbvXuf2Joe	Teacher created	Tessa Childers					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving Systems with Manipulatives	Task- students are introduced to solving systems	**http://islamdunkmath.blogspot.com/2013/11/solving-systems-with-manipulatives.html?m=1**	from Alex Overwijk	Abby Bates					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Systems Intro Venn Diagram	Students complete a Venn Diagram in Google Slides with points that are solutions to two different equations. There is one point that is a solution to both. Students graph these in different colors and see that the point that fits both is the intersection.	https://docs.google.com/presentation/d/1wtqp4ll2NlQHp3_XT1QjCFFBy_gry9UY7ldfqBrsZw/edit	Teacher Created	Alison Childers					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving systems using elimination	Thin Slicing, requires graphing on VNPS	https://docs.google.com/document/d/1Q5fHeBRgoMnVB9WxCvf_-C_AMhnD_1ledl/?usp=sharing&ouid=110640536790242514604&rtpof=true&sd=true	Teacher created	Mark Redstone					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving systems using elimination	Thin Slicing Problems	https://docs.google.com/document/d/1QHEHHlerO9H_CsBunasyvBNP2WZMTEVkmAKA0opvPk/edit							
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving systems using substitution	Differentiated practice; students can select two equations from a list to create a system. Linear equations are presented in all forms.		Teacher Created	Mark Redstone					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solve Systems using Substitution	Thinly sliced problems to introduce solving systems of linear e	https://docs.google.com/document/d/16bYf6bvusKwtQTXQUtmGrqb631YeKqae6/edit?usp=sharing&ouid=110640535790242514604&rtpof=true&sd=true		Kimara Webb					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solve Systems of Equations by Elimination	Task-for students VNPS	Solving Systems-Elimination (Real-World Systems)	teacher created	Melony Letarte					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Ostrich, Llama Count	Low floor high ceiling Problem solving task, solved with systen	https://www.heinemann.com/pps/pows/packet5156.pdf	NCTM problem of the week	Kristen moore					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Reasoning with systems of equations	Determine if a dollar bill does or doesn't belong in the box	Cash Box	Illustrative mathematics	Kristen moore					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving systems of equations/inequalities optimization	Performance task/ can be modified to pose for students working at VNPS	Maximizing Profits: Selling Boomerangs	MAP Mathshell	Kristen moore					
	Math 1/Algebra 1	**SYSTEMS of Equations**		introducing solving systems	Coin counting 3 act task	https://www.101qs.com/3199	Dan Meyer	Rachel Spanneut					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving Systems of Equations by Graphing	Thin slicing, requires graphing on VNPS	4-1 Solving Systems of Equations by Graphing	Teacher created	Don Newman	Solving Systems of Equations by Graphing (stage 2)	https://drive.google.com/file/d/1nnfWSCmCwuOkBPyTrJbxtuBhoqC-TKV/view?usp=sharing	Don Newman		
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving Systems of Equations by Substitution	Thin slicing	https://docs.google.com/presentation/d/1AgysPwEKw8TFyLU-dh1T4lrg8Zh5-MPuRHHHHHHHHHHHHHHHHHHHH	Teacher created	Don Newman	Solving Systems of Equations by Substitution (stage 2)	https://docs.google.com/document/d/1a3ldRAmas-mdPQ0HHHHHHHHHHHHHHHHHHHH	Don Newman		
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving Systems of Equations by Elimination	Thin slicing	https://docs.google.com/document/d/1Zp2D4BQ7NkZVLt3-UOUbS0EfZD7hvMZ2w9PnmWBc/edit?usp=sharing	Teacher created	Don Newman	Solving Systems of Equations by Elimination (stage 2)	https://docs.google.com/document/d/1KLlnf68TUNLk6DdbwTZPYxVDb-MJB5tjxXGe-w7CJ/edit?usp=sharing	Don Newman		
	Math 1/Algebra 1	**SYSTEMS of Equations**		Graphing Linear Inequalities in Two Variables	Thin slicing, requires graphing on VNPS	https://docs.google.com/document/d/18Y7bKGlcH4NeeiY-05EIteeMsIsWS3Jw6GDGUckMUs/edit?usp=sharing	Teacher created	Don Newman	Graphing Linear Inequalities in Two Variables (stage 2)	https://docs.google.com/document/d/1dHisHdYrYYAtrSU73ts4gqOGcSEoSoQmBensMCRRbr/edit?usp=sharing	Don Newman		
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving Systems of Inequalities	Thin slicing, requires graphing on VNPS	https://docs.google.com/document/d/16Fo0bLsen3FhuQ8HWm5ZY1Hlpb4CUOv3xM-_H9qdBY/edit?usp=sharing	Teacher created	Don Newman	Solving Systems of Inequalities (stage 2)	https://docs.google.com/document/d/1fnqAcwDFGIUlqJkDu3FCQ6pUnsFxYMWqzCVzkeXKxw/edit?usp=sharing	Don Newman		
	Math 1/Algebra 1	**SYSTEMS of Equations**		Systems of Equations Unit--Navigational Instrument	Navigational Instrument for use with Systems of Equations Unit	Systems of Equations Unit--Navigational Instrument		Brianna Frerich					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving Systems of Equations -- Graphing Method Discovery Thin Sliced Task	Thin Sliced Task introducing the concept of solving systems of equations using the graphing method; uses horizontal & vertical lines and standard form of a linear equation	Solving Systems of Equations -- Graphing Method Discovery Thin Sliced Task	Includes 7 Challenge Levels with 2 Parallel Question Strings; Also	Brianna Frerich					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Solving Systems of Equations -- Substitution/Elimination Methods Thin Sliced Task	Thin Sliced Task introducing the concept of solving systems of equations using the substitution & elimination methods; includes one solution, no solution, and infinitely many	Solving Systems of Equations -- Substitution/Elimination Method Thin Sliced Task	Includes 7 Challenge Levels with 2 Parallel Question Strings; Also	Brianna Frerich					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Tasks for Systems of Equations and Inequalities	First task is about Dwight choosing a Paper Salesman Job, require writing and comparing two equations. Other tasks involve writing and graphing systems of linear inequalities (contexts are buying food for cookout and modelling target heart range)	https://docs.google.com/document/d/1B0bpPNX0nmWAJ_M50ISOcqhRO8l9wCMsqEp0Hrd19Ip/edit?usp=sharing	Teacher Created	Katrina Misley					
	Math 1/Algebra 1	**SYSTEMS of Equations**		Snatch It Match It Systems of Equations	Good activity for a CYU. INSTRUCTIONS: https://docs.google.com/document/d/14ck0GyRUR3XcKFamOS0TybyN8GNq1mKiFRVZAzM4Qw/edit?usp=sharing	https://drive.google.com/file/d/1SaGZMbjaxWWZvAM7A_qbSu0dOnMNBao/view?usp=sharing	Created by me These links are deleted. :(	Karen H. Collins					
	Math 1/Algebra 1	Solving Equations and Inequalities		:Literal Equations, from 1-step	Thin Sliced, from combining like terms and 1-step equations, t	https://docs.google.com/document/d/1Bles9i3MY2BBnCyjAkX11Aw0MNH05nd8n_ogVUWxe4ed/?usp=sharing	Teacher Created	Nate Woodward					
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**		Add and Subtract Radicals (Square Roots only)	Intro, Thin Slices, Consolidation	https://drive.google.com/file/d/1XeFoyGJfWvqHGPTcr3MaSHLWfhvV3y/view?usp=share_link	Teacher Created	Jessica Geraci					
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**		Add, Subtract, and Multiply with Exponents	Intro, Thin Slices, Consolidation	https://drive.google.com/file/d/1YsH51rNAKa8wAn6ZDb3mQSN8w768kXu/view?usp=share_link	Teacher Created	Jessica Geraci					
	Math 1/Algebra 1			Combine Like Terms Intro	Order Up! 3 Act Task by John Orr hoo	https://docs.google.com/document/d/1WARBKocFPLce6JD39AqdFQ8hJuaTI_uXrjxnMwkYgY/edit?usp=sharing WEQ	WERWQ	Neleigh Johnson					
	Math 1/Algebra 1			Combine Like Terms Review	A review of combining like terms with rational numbers and also review perimeter of polygons and distributive property	https://docs.google.com/document/d/1jGJ2Co42AOZ5yGgtc_WPGIQvREEOns-QLse/YOOQNBs/copy	teacher created	Tessa Childers					
	Math 1/Algebra 1	Solving Equations and Inequalities		Compound Inequalities OR Statements	Board Work, Meaningful Notes, CYU, Answers provided	https://docs.google.com/presentation/d/1qqFsbzw6ZB6zYMBx7CurJBHWoAEjgdD0NEXBs0/0/edit?usp=sharing	Teacher Created	Dana Carie					
	Math 1/Algebra 1	Solving Equations and Inequalities		Compound Inequalities AND Statements	Board Work, Meaningful Notes, CYU, a couple tasks. Answers provided	https://docs.google.com/presentation/d/1GXX3Q0JgBFomjHwmsxcursG__Wq6-7qrpFJSDZybdjZ1x6NjXmsHSpbMDg=8jLwrLHtwkYqo9sCZquSbSbPm5dgGisv_	Teacher Created	Dana Carie					
	Math 1/Algebra 1			Consecutive Integers			teacher created	Dana Carie					
	Math 1/Algebra 1			Distributive Property Intro Thin Slicing	https://docs.google.com/presentation/d/1UOVbBsM15YN6oTwP-C5os-3wEUNSAZ4uCf/dNWo07f0/edit?usp=sharing	teacher created	Sarah Forst						
	Math 1/Algebra 1	Solving Equations and Inequalities		Equations Splat	A review of multi-step equations; variables on one side.	https://docs.google.com/presentation/d/1bmKNhZxEp3PQqsCIwHbS-VpZtQaeB1MRFwG2s_MA/copy	teacher created	Mickie Gibbs					
	Math 1/Algebra 1	Solving Equations and Inequalities		Equations with Variables on Both Sides: Types of Solutions	Multi-step equations with solutions that are either one solution, no solution and all real numbers. It is assumed that students already know how to solve multi-step equations. The focus is the three various solutions.	https://docs.google.com/presentation/d/1PzOfbd5z_cXNapmaerWCwj6tbkkFTY90gnCybk4sA/edit?usp=sharing	teacher created	Dana Carie					
	Math 1/Algebra 1			Evaluating Functions	slope			Tessa Childers					
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**		Exponent Properties thin slicing	Each property has a different set.	https://drive.google.com/file/d/1-J_0yZxxaCS6LgNwMlxEkJ_UYILYCY/view?usp=share_link		Jamie Ballard					
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**		Exponent Rules	Discovering Exponent Rules	https://drive.google.com/file/d/1ig74Vz-GcBvkfwCNrbe4cY4_WUSRNr_/view?usp=sharing	TPT Freebie	Michelle McLendon					
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**		Exponent Rules- thin slicing	Exponent Rules	These sets of problems are for students to work through and discover the exponent laws. Can also be used to review/revisit.	Abby Bates	notes layout included in slides					
	Math 1/Algebra 1	Solving Equations and Inequalities		Multi-Step Equations problem string	https://docs.google.com/presentation/d/1bmKNhZxEp3PQqsCIwHbS-VpZtQaeB1MRFwG2s_MA/copy	https://docs.google.com/presentation/d/1PzOfbd5z_cXNapmaerWCwj6tbkkFTY90gnCybk4sA/edit#slide=id.p	teacher created	Dana Carie	The document to the left doesn't match the description				
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**		Multiply and Divide Radicals	Intro, Thin Slices, Consolidation	https://drive.google.com/file/d/1rheck49_6wLdM_P8JfYJdlFYsiDsAbSH/view?usp=share_link	Teacher Created	Jessica Geraci					
	Math 1/Algebra 1	Solving Equations and Inequalities		Intepret & Write Inequalities Warm-Up	Warm-Up questions to review inequaily symbols and solutions to inequalities	https://docs.google.com/presentation/d/1GUX1t9ZrXnBY7y-BJ8SADkPVRCDsb0cvPZHm5LvbbCg/copy	Source: Kendall Hunt Illustrative Mathematics	Mickie Gibbs					
	Math 1/Algebra 1	Solving Equations and Inequalities		Interpret & Write Inequalities	Board tasks - interpret & write inequalities from situations	https://docs.google.com/presentation/d/1Mgbd1GaCdNn1f8h4Dl_7Kyuu8JpRxeFEDg8BEsw8Ro/copy	Source: Kendall Hunt Illustrative Mathematics	Mickie Gibbs	Deleted				
	Math 1/Algebra 1	Solving Equations and Inequalities		Interval Notation (Inequalities)	CYUs/Practice	Practice	Teacher Created	Jessica Geraci					
	Math 1/Algebra 1	Solving Equations and Inequalities		Linear Equations/Inequalities Navigation Tool	Gr 9 (NS, Canada) - used to track assessment	https://docs.google.com/document/d/1SQkNDU7D7mBGYv5ZkwPBmQxP1BYX1ad4pC8Qs/J8e57c/template/preview	Teacher Created	Michelle Muggridge					
	Math 1/Algebra 1	Solving Equations and Inequalities		Literal Equations	Problems at the board	https://docs.google.com/presentation/d/16jRWTHsTNKQXdDhSwkQgZEVTQPfbRMnH1jaeRmcYsJA/copy link is restricted	Teacher Created	Mickie Gibbs	Deleted				
	Math 1/Algebra 1	Solving Equations and Inequalities		https://docs.google.com/presentation/d/1PzOfbd5z_cXNapmaerWCwj6tbkkFTY90gnCybk4sA/edit#slide=id.p	Literal Equations Board TASKS - Thin Slicing with comparison to equations with 1 variable	https://docs.google.com/document/d/1ovSFLnPq3pPZELs2LlSc3ed4X0kB3OR7n6fSGTTDdk/edit?usp=sharing	teacher created	Monica Paredes					
	Math 1/Algebra 1	Solving Equations and Inequalities		Literal Equations CYU	Self-Checking Google Form (same problems as the board problems)	https://docs.google.com/forms/d/1EcuPZ3LwZV9qMoUbXb01007fLQ0juGpfu8-laWK8C0/copy	Teacher Created	Mickie Gibbs					
	Math 1/Algebra 1	Solving Equations and Inequalities		Literal Equations Full Lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study gu	Full Lesson Link		Deborah Harper					

	Math 1/Algebra 1	Solving Equations and Inequalities	Multi-Step Equations	Thin slicing	https://docs.google.com/document/d/1MBjeSXkqt18aKGJX_mvgwxbwyPCvgvcjY0Qa0K4YDNeHk/edit?usp=sharing	Digital version of Don's thin slicing. I use a colored rectangle to cover each set and move it during the lessons as students progress	Teacher created	Don Newman	Multi-Step Equations (stage 1)	https://drive.google.com/file/d/1Wm_DqwdJwQ0Ygkupqtnwlkuu-MXvDaMRH/view?usp=sharing	Don Newman			
	Math 1/Algebra 1	Solving Equations and Inequalities	Multi-Step Equations	Splat	Equations Splat		Teacher Created	Mackenzie Campbell	Could you explain splat?	The way I'm seeing it, each small dot represents +/- 1. You need to figure out what the splat represents to get the final term given. Basically, the splat is x.				
	Math 1/Algebra 1	Solving Equations and Inequalities	Multi-Step Equations	CYU self-checking Google Form	.		teacher created	Mickie Gibbs						
	Math 1/Algebra 1	Solving Equations and Inequalities	Multi-Step Equations	Thin slicing	https://drive.google.com/file/d/1qgWrp-SRa7lS1DVdNG_EapN5yKP61G92/view?usp=sharing		Teacher Created (Thanks, Don Newman)	Todd Nelson						
	Math 1/Algebra 1	Solving Equations and Inequalities	Multi-Step Inequalities	https://drive.google.com/drive/folders/1Bzxq5KxvOO-ZlwQ1wqQ77Nbcbgkq?usp=sharing	https://docs.google.com/presentation/d/1kjN37wy6v6kewrwM-L4wvo7zxc4MvSqCKCDexCOkRVY/edit?usp=sharing		Teacher Created	Dana Carie						
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**	Multiplication and Division Laws of Exponents	Thin Slicing/Smudged Math - Mult/Div Exponent Laws	https://docs.google.com/document/d/1PXXbWCHEGtMqLlwgPv7rPN3JI38vcDeUpLJCbSlx6WU/edit?usp=sharing		Teacher Created	Angela Ratliff						
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**	Multiplication and Division Laws of Exponents	Smudged math/thin slicing	https://docs.google.com/document/d/1PXXbWCHEGtMqLlwgPv7rPN3JI38vcDeUpLJCbSlx6WU/edit?usp=sharing		Teacher Created	Don Newman	Multiplication and Division Laws of Exponents (stage 2)	https://drive.google.com/file/d/1u6Lu1tZCVqDqj6f74Jy5WHRR7PYUGE80/view?usp=sharing	Don Newman			
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**	Multiplication/Division Exponent Laws	Note making stage 1 - based on Aug 7 zoom call with Peter	https://docs.google.com/document/d/15L11EBCJuMrSMhCj0B6qzmQuamq2nHBRxvK3sMbvAD2u/Y/template/preview		Teacher Created	Michelle Muggridge						
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**	Multiplication/Division Exponent Laws	CYU - Mult/Div Exponent Laws	https://docs.google.com/document/d/1plQhseZJPVnYF3Rk1-Eo_EW4H107xoOTQ5dTcpdg_OJQ/template/preview		Teacher Created - Base	Michelle Muggridge						
	Math 1/Algebra 1	Solving Equations and Inequalities	NTMFFS - Unit 1 (Solving Linear Equations/Inequalities)	Notes To My Future Forgetful Self	https://drive.google.com/file/d/1T28TiMy85Sr4NWwZ_Xd9eeKr-PgHvY6/view?usp=sharing		Teacher Created	Todd Nelson						
	Math 1/Algebra 1		NTMFFS - Unit 2 (RelationsFunctions/Arithmetic Sequences)	Notes To My Future Forgetful Self	https://drive.google.com/file/d/1UuJwfF5UUa5OFzOQy8cGB38uXcodSPv/view?usp=sharing		Teacher created	Todd Nelson						
	Math 1/Algebra 1		NTMFFS - Unit 3 (Linear Equations/Functions)	Notes To My Future Forgetful Self	https://drive.google.com/file/d/1Rt2cUfAybfajmLUq3mc5C3nmQgais5TN/view?usp=sharing		Teacher created	Todd Nelson						
	Math 1/Algebra 1		NTMFFS - Unit 6 (Exponents/Exponential Functions)	Notes To My Future Forgetful Self	https://drive.google.com/file/d/1BNiQX7krd23kTgkrKkXCX4uvoINn7_L/view?usp=sharing		Teacher created	Todd Nelson						
	Math 1/Algebra 1		NTMFFS - Unit 7 (Ops on Polynomials/Factoring)	Notes To My Future Forgetful Self	https://drive.google.com/file/d/1mp0ldgKVed0vQzd6QPYow6gDDrxSc3i/view?usp=sharing		Teacher created	Todd Nelson						
	Math 1/Algebra 1		NTMFFS - Unit 8 (Solving Quadratic Equations)	Notes To My Future Forgetful Self	https://drive.google.com/file/d/1XD2bdHSK9QYdbsLFvRvh-saJKGqgNLU/view?usp=sharing		Teacher created	Todd Nelson						
	Math 1/Algebra 1	**Number Systems & Operations with Exponents, Radicals & Polynomials**	NTMFFS - Unit 9 (Radicals)	Notes To My Future Forgetful Self	https://drive.google.com/file/d/1fRZyHQYKok5JuJeed_cLSfZ5Xbbp2wfV/view?usp=sharing		Teacher created	Todd Nelson						
	Math 1/Algebra 1	Parallel and Perpendicular Lines	Parallel & Perpendicular lines	Thin slicing parallel and perpendicular lines from a table	https://docs.google.com/document/d/18lDKvylhK_76-VRU22elwyJhRsFLcpAJgrFa6nNsVdU/edit?usp=sharing			Carri Chesler						
	Math 1/Algebra 1	Parallel and Perpendicular Lines	Parallel and Perpendicular Lines	Thin slicing. Writing Slope Intercept From given a point and given either a parallel or perpendicular line	https://docs.google.com/document/d/1TTBewdqGI8TFtfTvouLqVvX6kxAFQaLXDuHmVm8f90/edit?usp=sharing		Teacher created	Don Newman	Parellel and Perpendicular Lines (stage 1)	https://drive.google.com/file/d/1m2bTfTfUVuDLPA0sHvzmXEir-WxkIZ4E5/view?usp=sharing	Don Newman			
	Math 1/Algebra 1		Point Slope Form	Thin slicing. Writing point slope from from a point and slope and fro two points	https://docs.google.com/document/d/1kxm4qRtTTOvZAfdJNJqq92ak1TmgWBqCAgbeNuc/edit?usp=sharing		Teacher created	Don Newman						
	Math 1/Algebra 1		Point slope, slope intercept and standard form	Exploration based problems to do on paper or to pose for students at VNPS	8i. ?		Math Medic	Kristen Moore						
	Math 1/Algebra 1		Rates of Change Discovery Task	A string of equations that begins with basic one-step equations and concludes with multi-step equations.	Rates of Change Discovery Task		Includes Scripted Intro and Task Progression (including recommended Threshold and Extensions)	Brianna Frerich						
	Math 1/Algebra 1		Rates of Change Thin Sliced Review Task	Short thin sliced task designed to review finding rates of change when given a table; suggested use as a Day 2 task prior to issuing CYU Questions	Rates of Change Thin Sliced Review Task		Includes 7 Challenge Levels and 2 Parallel Question Strings	Brianna Frerich						
	Math 1/Algebra 1		Representations of Linear Functions	A self checking desmos activity draws connections between graphs/tables/equations of linear functions	https://teacher.desmos.com/activitybuilder/custom/6334b4d480b2b4fabcd225643									
	Math 1/Algebra 1		Simplify Imperfect Square Roots	Intro, Thin Slices, Consolidation	https://drive.google.com/file/d/1TTyc42oPWYcvK-w_on0aaJ6QCsbcfD2z/view?usp=share_link		Teacher Created	Jessica Geraci						
	Math 1/Algebra 1		Simplifying Expressions	CYU Simplifying Expressions Formative Assessment	https://docs.google.com/document/d/1QZuKCBsq84CPPJGNNZTKD_YG1Gu9kQ23sEOX0Q80Mo/9/ed		Teacher Created	Neleigh Johnson						
	Math 1/Algebra 1		Simplifying Imperfect Cube Roots	Intro, Thin Slices, Consolidation	https://drive.google.com/file/d/1QuXcQEvg6PYFuNBYpWVSlnDBLzRiUlx4/View?usp=share_link		Teacher Created	Jessica Geraci						
	Math 1/Algebra 1		Standard Form	Thin slicing. Graphing in standard form and converting from standard form to slope intercept form. Graphing on VNPS required	https://docs.google.com/document/d/1zeyiE4xRbTDeKdbel5XDrUGcZYbTXLmVMFc		Teacher created	Don Newman	Standard Form (stage 1)	https://drive.google.com/file/d/1kGqgvW_1C6qIndeZe_1z-MB-Dd_Lsbjm/?usp=sharing	Don Newman			
	Math 1/Algebra 1		Standard to Slope Intercept					Susan Meisels (Pineapple Sunset)						
	Math 1/Algebra 1		Teaching Through Problems Worth Solving	Full 8th Grade curriculum from Alicia Burdess (Alberta, Canada). See correlation to CCSS topics HERE (many tasks could be used for 9th grade).	https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_171e22ec3bd24419a50faa01dcd5ccaa.pdf		www.aliciaburdess.com	Abby Bates						
	Math 1/Algebra 1		Translating Equations and Verbal Sentences	Board Work, Meaningful Notes, CYU	https://docs.google.com/presentation/d/1c-oa_ekaaTtrfOrxr0bvWRNVdpOhYzWdLATJecFgaVxZA/edit#slide=id.ge8463642a7_0_78		teacher created	Dana Carie						
	Math 1/Algebra 1		Translating Equations and Verbal Sentences	Eight algebraic statements the students have to translate to numeric expression based on shopping. Extention activity included	https://drive.google.com/file/d/1GNJHLyVsZHEDJc0bnOAcUNEeXQk3Z13b/view?usp=sharing		From the VA dept of education	Linda Krajcik						
	Math 1/Algebra 1													



Timestamp	Grade level	Topic	Task Type	Task Name	Description	Link to Task (include intro script if possible)	Comments/Notes	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By
		Full Curriculum Resources												
		Full Curriculum Resources		Curriculum Map & Tasks		Geometry or Math 2		Abby Bates						
		Full Curriculum Resources		Full Course	Full set of tasks from @Matemagnifico (look for geometry tab)	Geometry/Calculus Lessons, Tasks, Charts	Created and shared by Jeff @Matemagnifico on Twitter	Abby Bates						
		Full Curriculum Resources		Geometric Postulates and Theorems	Master document of postulates and theorems used in high school geometry	https://docs.google.com/document/d/1hvq-Uak,juHEHxoYUtNIKW27ArEZaECU8-oaO97bISFAI/copy	I give my students these postulates and theorems and as they come across them in their VNPS tasks, I have them highlight the new ones during	Stefanie.frey@ccboe.net						
		Full Curriculum Resources		Dr. Austin Maths	Geometry worksheets that are great for thin slicing	https://www.draustinmaths.com/geometry		Tom Fisher						
		Full Curriculum Resources		BTC REVEAL Geometry	BTC Resources	BTC Geometry 23-24		Candy Miller (FCHS)						
				Tools of Geometry										
		Tools of Geometry		Points, Lines, Planes, Angles vocab and notation	Few activities to introduce basic vocab, notation, interpreting and creating sketches based on descriptions of elements	https://drive.google.com/drive/folders/1pR9elmbvqW6JD4g_2bdCCo9WkmS4MJ7usp=sharing	link is broken	Yuliya Milbeck						
		Tools of Geometry		Angle measurements with protractors, interior angles of polygons, and angle puzzles.	There was a post that asked about how to introduce angles, using protractors, and angle addition. I suggested using painters tape on a table to do all the above activities. After some thinking about BTC here's what I posted:	Angles activities		Pattie Brittan						
		Tools of Geometry		Points, Lines, Planes, Angles, sorting	Before introducing any terms, have the students sort them into categories in their groups. Have them determine a definition for each group. As a class discuss the groups, introduce the terms, and talk about defined vs undefined terms.	https://docs.google.com/presentation/d/1kB8fb3UGCDc_iFic_kynKW8PICsjrGwl7NYYXvXA4/edit?usp=sharing	link is broken	Brandi Grimes						
		Tools of Geometry		Constructions	Good progression of constructions, many of which students need to figure out	https://im.kendallhunt.com/HS/teachers/2/1/1/index.html	Lessons 1 - 7 include paper and pencil constructions, followed by lesson 8 for using technology, and lesson 9 for applying perpendicular bisectors to Voronoi diagrams	Anna Blinstein						
		Tools of Geometry		Introducing Definitions	Having kids build their own definitions in the first few days.	https://drive.google.com/file/d/1WtCT_I1ZVfHJKghTU7Jm5kMM8jxQ7Jk/view?usp=sharing	The basic approach that I take is to do 5 minutes of talking about how every language has to start with some basic words that are undefined so we can build the foundation of the language. I then walk through with them the three undefined terms talking about dimensions, notation, etc. Have them figure out a definition for "chair" or Math Medic uses "shoe." We then consolidate that by figuring out the actual definition and then what it takes to make a good definition. Then, I give them a chunk of the "is" and "is not" and have them come up with definitions challenging them to use the words that they just defined in their new definition. So to define line segment, they should use collinear. To define ray can they use collinear and line segment, to define midpoint can they use congruent, etc.	Melissa Battis						
		Tools of Geometry		Segment Addition Postulate	Practice measuring length on a coordinate plane, then a task to find length of segments using a scale drawing	https://wfps-my.sharepoint.com/:b:/g/personal/cloveless_west-fargo_k12_nd_us/EcsopiPLkdKOkBJ6oCEABIBdMWIo--qrd39o0MXg7Pg?e=6upk04	Just the image: https://wfps-my.sharepoint.com/:w:/g/personal/cloveless_west-fargo_k12_nd_us/Ec80VMo6Q1EgTsQefTSk-0B2NWrmLzpwAwdZTc6jENrA?e=8Cff0	Cory Loveless						
		Tools of Geometry		Distance Formula / Midpoint Formula	Determine the closest pizza delivery location	https://wfps-my.sharepoint.com/:b:/g/personal/cloveless_west-fargo_k12_nd_us/EcsopiPLkdKOkBJ6oCEABIBdMWIo--qrd39o0MXg7Pg?e=6upk04	Just the image: https://bit.ly/3QFXA7S	Cory Loveless	The link doesnot match the task.					
		Tools of Geometry		Segment/Angle Addition Postulates	After discovering these postulates on Geogebra in the previous lesson, groups start with the first problem in the slicing after reviewing definitions of midpoint, bisect, and interior.	https://docs.google.com/presentation/d/1sLuFxVBrcuEUsHLJlHbpKWRW7YNy2WoGK9CZUX0G1s/copy		Tessa Childers						
		Tools of Geometry		Partioning of a segment	This silcing worksheet that uses slope to find midpoint and to partion a segment.	https://docs.google.com/document/d/1Pd8_RjbTleVc8C1BHiQHz30p0hzYVVgK8n1w6WRY/edit?usp=sharing	Asking for any feedback on this worksheet. Another one that has been removed :(	Lisa Lee						
		Tools of Geometry		Points, lines, planes vocab, segment&angle addition	Full unit on tools of Geometry			Kristin Rokitowski						
		Tools of Geometry		Points, Lines, planes drawing Partner Actiivity	A partner drawing activity to practice the vocabulary of points, lines and planes.	https://docs.google.com/document/d/12lAhUJ2DJ2Qs8YiwUOHJNZRYcjeDue2tkJMVUWK6-QY/edit?usp=sharing		Heather Bergstedt						
		Tools of Geometry		Tasks for segment proofs (segment addition, midpoint, and geometric proofs)	Thin sliced tasks given in sequential order. Needs CYU (mild, medium, spicy) and scaffolded notes to forgetful.	https://drive.google.com/drive/folders/1RGb0ffIYKTJlWEBRpJ0K9Ls9tZ0tgeZ?usp=sharing		Logan Mavromatis						
		Tools of Geometry		Midpoint,Distance, Partitioning, Parallel and Perpendicular lines	Thin sliced lessons for VNPS, notes, CYU worksheets, study guides, and tests.			Kristin Rokitowski						
		Tools of Geometry		Tasks for Angle Proofs and Finding missing angle measures	Thin sliced lessons for VNPS, notes, CYU worksheets, study guides, and tests.	https://drive.google.com/drive/folders/1ba7_1SWL8CYA5QDeuGCJ2VJPc7cNuLly?usp=sharing		Logan Mavromatis						
		Tools of Geometry		Intro Unit: Points, Lines, Planes; Segment Addition; Midpoints; Distance Formula; Angle Addition; Special Angle Pairs	Slides starting from day 1 with teacher notes, some external links. Loosely follows Big Ideas Math curriculum.			Leslie Greer	Intro Unit: Points, Lines, Planes; Segment Addition; Midpoints; Distance Formula; Angle Addition; Special Angle Pairs	https://docs.google.com/presentation/d/1MSpFeSo8cUBcw5aOUe53EFtCmXfTxILRbCf28TUjedI/usp=sharing	Leslie Greer			
				Logic and Reasoning (and Proof)										
		Logic and Reasoning (and Proof)		Algebraic proofs -cut and paste	Great introduction to proofs using algebraic proofs and cut and paste. The pieces allow a student to move around the statements and reasons before pasting	https://newellisseconderymath.blogspot.com/2016/01/algebra-proofs-cut-and-paste-activity.html?m=1&fbclid=IwAR3gUlHDtH4nByxZp5DUZ4XQ72rmR2Ffhmw6U-lKn2d_dHMJu8sTWYuqo6oc	Use this idea to create geometric proofs	Pattie Brittan						
		Logic and Reasoning (and Proof)		Inductive Reasoning	Extending patterns, making conjectures, finding counterexamples, making predictions - Hoping to add meaninful notes soon	https://docs.google.com/presentation/d/1wodGu6T2regdmn4fiS81NRkcAORSYcjXlsw/3ApN9Ah-M/copy	Wrong link	Tessa Childers						
		Logic and Reasoning (and Proof)		Biconditionals - meaningful notes		https://docs.google.com/presentation/d/1wNU-jORsNMd4a5K8NlqYpeuKmZ 245eqLFSRP-hrqNs/copy		Tessa Childers						
		Logic and Reasoning (and Proof)		Intro to Geom Proof	This is after proving Uno proofs and algebraic proofs. Students have also been given theormes, definitions, and properties to study	https://docs.google.com/presentation/d/1qISVSKGD8nF4eMXtSDB1tsAJ4HJ_WnxOnCqSeFHKHMI/copy		Tessa Childers						
		Logic and Reasoning (and Proof)		Conditional Statements Intro Activity	Ss build conditional, converse, inverse, and contrapositive and determine truth values, look for patterns in the work BEFORE learning the names of the statements.	https://samjshah.com/2012/08/12/if-students-learn-then-weve-accomplished-something-part-i/?fbclid=IwAR3MxouLlwTRgwzCDymLlBA8pK1kbStbWcB8XBkuAu3dYJTfkN8LlXuzKM	This was shared in the BTC Geometry page, and is easily converted to VNPS. I can't take credit for it but wanted to make sure it was available to others!							
		Logic and Reasoning (and Proof)		Intro to segment and angle proofs	This follows BJU 2.6-2.8; Using definitions as reasons in proofs, adjacent angle sum theorem, adjacent angle portion theorem, linear pair theorem, vertical angle theorem	https://docs.google.com/presentation/d/1usSxdsYXMEjS4dx3KD14PDQ83mTUZtgi/edit?usp=sharing&ouid=108366725051214265013&rtpof=true&sd=true		Megan Guidry						
				Parallel and Perpendicular Lines										
		Parallel and Perpendicular Lines		Equations of Parallel and Perpendicular Lines	Desmos Activity	https://teacher.desmos.com/activitybuilder/custom/564f517e5cbb83e416c94244	I made this a long time ago, it could probably be edited to be more thin sliced. Would recommend launchinging with a review of linear equations/y=mx+b/slope.	Leslie Greer						
		Parallel and Perpendicular Lines		Parallel and Perpendicular Lines cut by a transversal	post it note thin slicing	Parallel Lines Transversal Thin slicing.pdf		Heather Ochs						
		Parallel and Perpendicular Lines		Parallel Lines cut by a transversal/angle relationship proof peer review	Using VPNS to collaborate, give feedback via peer review and then reflect and alter if needed	Parallel Proofs Peer Review.pdf	hochs@pasco.k12.fl.us if you have more questions!	Heather Ochs						
		Parallel and Perpendicular Lines		Parallel Lines cut by a transversal/Angle pair relationships/ Auxiliary Lines/And Triangle Sum Theorem	Thin sliced lessons for VNPS, notes, CYU worksheets, study guides, and tests.	https://drive.google.com/drive/folders/1Zg2UqgDNFqQqFgRCj6fWa-VrRHI5Yx7?usp=sharing		Logan Mavromatis						
		Parallel and Perpendicular Lines		Parallel Lines cut by a transversal - Full Lesson	thin slice progression, notes (23/24 style), CYU, test and study guide questions	Full Lesson Link	Thin Slice based on Taylor Lord's increasingly difficult problems	Deborah Harper						
				Congruent Triangles										
		Congruent Triangles		Are triangle congruent?	Illustrative Math gives great investigative tasks to look if triangles are congruent.									
		Congruent Triangles		Equidistance Theorems	Thinking task to investigate and prove through Congruent Triangles	Thinking Task Equidistance.docx	This should get the kids to explore: 1) Any point on angle bisector is equidistant from both sides of the angle. 2) Any point on the perpendicular bisector is equidistant from both endpoints. The goal would be to then have them prove each of these theorems in a proof to practice their congruent triangle proofs.	Melissa Battis						
		Congruent Triangles		Congruent Triangles and Congruents figures.	Thin sliced lessons for VNPS, notes, CY	https://www.map.mathshell.org/download.php?fileid=1752		Logan Mavromatis						
				Relationships within Triangles										
		Relationships within Triangles		Interior/Exterior Triangle Angles		https://docs.google.com/presentation/d/1u7s76X4687dTRa13Y10omF4hXbDr7qyDqpTJ5_3Ha/copy	https://docs.google.com/presentation/d/1jdhioLQUBm8dxmtGBm98F9UPvOOwh8FRNotM22ii8cM/copy	Tessa Childers						
		Relationships within Triangles		Points of Concurrency (centroid)	art-based activity discovering properties of a centroid	https://docs.google.com/document/d/1w3ySxJvk7RCX7Mm7cmY-BMoz-rGxHZffwep2aTMtnvE/edit?usp=sharing		Kristina Barnaby						
		Relationships within Triangles		Triangle midsegment and bisectors. Triangle Inequality Theorem.	Thin sliced lessons for VNPS, notes, CY	https://drive.google.com/drive/folders/1o3csk9s_OKNn_nwMOe5DxzRzHMxCTTD?usp=sharing		Logan Mavromatis						
				Polygons and Quadrilaterals										
		Polygons and Quadrilaterals		Interior/Exterior Angles of Polygons	This topic was introduced using Geogebra; Ss created different polygons starting with triangles to pentagons then using the features of Geogebra measured the interior angles. Ss recorded the sums in a table and developed the rule by looking at the patterns.	https://docs.google.com/presentation/d/1e9d91CGZ1IFAufvf_wgK8CMvLkIOY8NSu6LYtYi6gs/copy		Tessa Childers						
		Polygons and Quadrilaterals		Full lesson - angles in triangles and quadrilaterals	Thin slice progression, notes (23/24 version) CYU, test and studyguide questions.	Full Lesson Link	Thin Slice based on Taylor Lord's Increasingly Difficult Problems	Deborah Harper						
				Coordinate Geometry										
		Coordinate Geometry		Rotations on Coordinate Grid	Uses the same grid to gradually shift center of rotation away from a set point. Students had a hiccup the moment the center moved off the shape but it's quickly worked through.	https://docs.google.com/document/d/1XBth2DJI3o6wxfEWyTZqroba5QkQesJ/edit?usp=sharing&ouid=117861891138455247927&rtpof=true&sd=true		Jen Theuret						
		Coordinate Geometry		All things coordinate geometry	Thin sliced lessons for VNPS, notes, CY	Unit 9 - Coordinate Geometry		Logan Mavromatis						
				Transformations										
		Transformations & Congruence		Point and Line Symmetry	Students form words with capital letters. They receive points based on the point and line symmetry of each letter.	https://docs.google.com/document/d/1brT4-sBIlQ7HCegC-2U64xjzFTk85ZfdGahiluQI/edit?usp=sharing	Based on a task created by Henrico County Public Schools	Katie Bills						
				Similarity										
		Similarity		Cry Me a River, Build Me a Bridge, and Get Over It	Uses similar triangles to determine the width of a river and height of nearby trees to determine which tree to chop down to use to cross the river.	https://bit.ly/35dvGOa		Amber Riel						
		Similarity		Shadows & Mirrors	Uses shadows and mirrors to determine the height of people and objects that cannot be easily measured.	https://bit.ly/3iDaJda		Amber Riel						
		Similarity		Similarity	Thin sliced lessons for VNPS, notes, CY	https://drive.google.com/drive/folders/139QJD3hkQC_ffy-9zEn66jPsn2sq-3-Y?usp=sharing		Logan Mavromatis						
				Right Triangles and Trigonometry										
		Right Triangles and Trigonometry		Intro to Trig Ratios	Geogebra and group work for board; could be adapted for use with protractor and ruler instead of geogebra	Trig Ratios Group Exploration	These three are my first few attempts at thin slicing (sort of)... if you have any questions or suggestions I'd love to hear them!	asmith@tampaprep.org						
		Right Triangles and Trigonometry		Intro to Trig Equations	Thin sliced (day 2 from above)	Trig Equations Thin Sliced		asmith@tampaprep.org						
		Right Triangles and Trigonometry		Intro to Inverse Trig	Thin sliced (day 3 from above and adapted from Stefanie's below)	8.4 Day 3 Thin Sliced Inverse Trig		asmith@tampaprep.org						
		Right Triangles and Trigonometry		Intro to Trig Ratios	Thin sliced lesson with script.	Intro to Trig Ratios Thin Sliced Lesson		Stefanie.frey@ccboe.net						
		Right Triangles and Trigonometry		Intro to Trig Equations	Thin sliced lesson with script			Stefanie.frey@ccboe.net						
		Right Triangles and Trigonometry		Applications of Trig Ratios using Angle of Elevation and Depression	Thin sliced lesson with script	https://docs.google.com/document/d/1plsnxtHfZ_WJAB_-_WxWNA5KAe6UQlUGrnlLdgl86Y/copy		Stefanie.frey@ccboe.net						
		Right Triangles and Trigonometry		Intro to Inverse Trig Equations	Thin sliced lesson with script	Inverse Trig Equations Thin Sliced Lesson		Stefanie.frey@ccboe.net						
		Right Triangles and Trigonometry		Intro to trigo ratios	Semi Thin sliced lesson 9generalisation)	https://drive.google.com/file/d/1rST0cV4JmjBxHv5Zy2pYVExRGD15SSnV/view?usp=share_link		etienne.perron@csjonquiere.qc.ca						
		Right Triangles and Trigonometry		Pythagorean Theorem Converse Noodle Doodle	Students make triangles to develop PT Converse Theorem	https://drive.google.com/file/d/1Pr22ZfrDtMU4ExdW_8MUebZKuB5I2O6U7/view?usp=share_link	Quick format to be updated later.	spoppen@isd485.org						
		Right Triangles and Trigonometry		Pythagorean Theorem Converse - Sets of Consecutive Whole Numbers	After learning the converse theorem, students identify all possible sets of consecutive whole numbers that can	https://drive.google.com/file/d/1z2i-AOsUGdws1uYE2FLewMXEA9BG1p/view?usp=sharing	Quick task that can be used after they've learned the converse theorem. I like the idea of doing this after they've done the	ssmith4@garfieldre2.net						
		Right Triangles and Trigonometry		Deriving distance formula from Pythagorean Theorem	Thin silcing			Dana Harrington (dharrington@wmrhsd.org)						
		Right Triangles and Trigonometry		45-45-90 and 30-60-90	Thin slice discovery of patterns	Option 1 (more advanced, shorter activity) or Option 2 (any level, longer activity)		Dana Harrington (dharrington@wmrhsd.org)						
		Right Triangles and Trigonometry		30-60-90	Thin Sliced problems for board	https://drive.google.com/file/d/1rST0cV4JmjBxHv5Zy2pYVExRGD15SSnV/view?usp=share_link		Melissa Battis						
		Right Triangles and Trigonometry		All things Trig	Thin sliced lessons for VNPS, notes, CY	https://drive.google.com/drive/folders/132L26A2Dce8bwwI7Pe53JJQcGXc7OtrY/a?usp=sharing	These are built to be cut into "half" pages and passed out chronologically to introduce the idea of SRT	Logan Mavromatis						
		Right Triangles and Trigonometry		45-45-90	Thin Sliced Problems for board	https://docs.google.com/document/d/1p6CYcMZQJo3i-DVXbFB3dRghwYCoA4/edit?usp=sharing&ouid=104863163672285292216&rtpof=true&sd=true		Melissa Battis						
		Right Triangles and Trigonometry		Special Right Triangles	Students discover special right triangles values through a pattern detecting activity.	https://mathequalslove.net/special-right-triangle-discovery-activity/	My geometry students did this at it was AWESOME. I had them do 45-45-90 and then 30-60-90.							
				Area			How can I convert to pdf?							
		Area, Surface Area, Volume		Unusual cake baker	Page 154 in the book.	https://teacher.desmos.com/activitybuilder/custom/63025ded55895c000c5283b	(These are Desmos slides so the kids can see them, draw them on their boards, then work the problem.)	mikubaitis@scsmustangs.org	What are the instructions?					
		Area, Surface Area, Volume		Day 1: rectangle, triangle, parallelogram	Discovery starting with the area of a rectangle	https://docs.google.com/document/d/1KTdkfylIFAKHAZPWOA6hto0EIt64eCcx2K6FIlLMg4A/edit?usp=share_link	Meant to be half sheets printed for group work!	98abigails@gmail.com						
		Area, Surface Area, Volume		Day 2: trapezoid	Cut out activity in groups!	https://docs.google.com/document/d/1nkytTYZLMDfIcHQ0VBqoqj0NdP2NpU0BBxGl_DwUog/edit?usp=sharing	Adapted from this: https://aofradkin.wordpress.com/2017/12/29/discovering-the-area-of-a-trapezoid/	98abigails@gmail.com						
		Area, Surface Area, Volume		Day 3: rhombus/kites		https://docs.google.com/document/d/1BuePkQvBsatZwxp0bzyy1sWGCuKvodE7K7Frcgx_IGY/edit?usp=share_link	Adapted from this: http://hchsmath.weebly.com/uploads/2/4/9/3/24930439/10.1_3_notes_key.pdf	98abigails@gmail.com						
		Area, Surface Area, Volume		Day 4: circle		https://docs.google.com/document/d/1BjQBAmBd99XcChxhevkbteoLsyXmnlbWaxuuK0lzOY/edit?usp=share_link	If your students haven't done circumference, change the last question on page 1 to say "how can you use your work so far to write a formula for circumference based on radius"	98abigails@gmail.com						
		Area, Surface Area, Volume		Day 5: sectors	Practice problems. Could be used in groups at boards or individually	https://docs.google.com/document/d/11wocYI1qydX5uQD96j6zDFAheLwUsKpeG6i-rmeDuM/edit?usp=share_link		98abigails@gmail.com						
		Area, Surface Area, Volume		Day 6: composite figures	I used a TPT stations activity for this!			98abigails@gmail.com						
				Volume and Surface Area										
		Area, Surface Area, Volume		Cones	Credit: I Speak Math	https://ispeakmath.org/2014/05/02/volume-of-cones-discovery-lesson/	Just found this online and adapted it to work for my kids :)	98abigails@gmail.com						
		Area, Surface Area, Volume		3D Prisms	Credit: I Speak Math	Volume of 3D Shapes with Play-doh	I	Speak Math	Just found this online and adapted it to work for my kids :)	98abigails@gmail.com				
		Area, Surface Area, Volume		Circuit Practice	Requires knowledge of all the formulas	https://docs.google.com/presentation/d/1Wope0HaAA8lW0C12zpRZ9Kz5eqhgm5SuG2T4w-8gsrK/edit?usp=sharing		98abigails@gmail.com						
				Circle Measurement and Theorems										
		Circle Measurement and Theorems		Analyzing a bike rim in 5 days	Al Overwijk wrote "This is my attempt at creating an exploratory activity 1) to discover and understand radians, 2) to develop the relationship between arclength, radius and the angle measure in radians 3) to understand angular velocity and 4) to develop an understanding of the relationship between the angle rotated and the height of a point on the bicycle rim."	http://slamdunkmath.blogspot.com/2016/09/analyzing-bike-rim-in-5-days.html	I am going to use it to develop radians along with the other segments in a circle also. At the high school Geometry level we are not required to develop angular or linear velocity. I also like the idea of collecting data about the point on the rim and its height as it rotates around. Good information to further develop some fun small group activities.	Pattie Brittan						
		Circle Measurement and Theorems		Intro to Circles Vocabulary	Thin sliced lesson with script. The link will take you to a folder that includes the Vocab match.	https://drive.google.com/drive/folders/1fSPjFNLaD6UAconmJFmsn7KOdJv9OIBx?usp=/copy		Stefanie.frey@ccboe.net						
		Circle Measurement and Theorems		Angles in Circles Exploration (Day 2)	This is indepndent with Geogebra, but could be reworked into a group activity at the boards.	https://docs.google.com/document/d/18AUMs5N1Zb8GhOP5lO0senEtj5TWHMwZmhrycCRcucM/copy	I used Stefanie's activity above as Day 1, and will put the rest of my unit below as I design more. (Each day isn't necessarily one lesson, depending on your timing/schedule, but I labeled them as such to show the progression)	98abigails@gmail.com						
		Circle Measurement and Theorems		Arcs and Chords (Day 3)	Discovering/proving many of the related theorems!	https://docs.google.com/document/d/1QY29GkTL1QFsSFxmzt1XAN2UPDxjPsWFLl9Y6Zj8_s/copy	Trying to avoid lecture on properties... but also don't want every lesson to be measuring length and angles. If you have any feedback to make this better or more BTC or more interesting, please reach out!	98abigails@gmail.com						
		Circle Measurement and Theorems		Tangents (Day 4)		https://docs.google.com/document/d/1gxjO5Bd75P5oZMBopxsMByDANsyY1z33/s/dNQc8hMI/copy		98abigails@gmail.com						
		Circle Measurement and Theorems		Inscribed and Circumscribed Polygons (Day 5)	Combines everything together (all of the theorems/rules they learned) to practice.	https://docs.google.com/document/d/1LX6h8wmgKVS0f6AtQZf6eSxe6jaAV36/E1TgkDPOYSpQ/edit?usp=sharing		98abigails@gmail.com						
		Circle Measurement and Theorems		Equations of circle Exploration (Day 6)		https://docs.google.com/document/d/1TIDxM3Bw-QEKgKGWTrmgdhvDOaXQKM4RZV/ex2bJ58UI/copy		98abigails@gmail.com						
		Circle Measurement and Theorems		Circles & Completing the Square (Day 7)	Review of factoring and solve by square root, developing completing the square, application to rewriting circles in standard form	https://docs.google.com/document/d/1f9sOwTC1qdkGmBCkszQ7MpBxrFRw8Pzb-wNaE8UEOk/copy		98abigails@gmail.com						
		Circle Measurement and Theorems		Circles & Completing the Square	Thin slice to solidify how to make a perfect square trinomial and then use that skill to identify the center and radius of a circle	Google Doc	This comes after students have discovered the equation of a circle. *(It's basically an alternate version of Abigail's Day 7 above, to follow her Day 6 activity.)*	Dana Harrington (dharrington@wmrhsd.org)						
		Circle Measurement and Theorems		Circumference and area rounded BTC Thin slice	Free TPT slides!	https://www.teacherspayteachers.com/Product/Circles-Circumference-and-Area-Rounded-and-pi-answers-BTC-Thin-Slice-8302692?sh.tr=050626614251d44552374ca8aa6e70c0								
		Circle Measurement and Theorems		Circles	Thin sliced lessons for VNPS, notes, CYU worksheets, study guides, and tests.	https://drive.google.com/drive/folders/1SLlQMMiv2STEkXPw8_P9OknKs2_ETZ5R?usp=sharing		Logan Mavromatis						

TOPIC	Task Name	Description	Link to Task (include intro script if possibe)	Comments/Notes	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By
	Full Curriculum Resources										
Full Year Resources	Curriculum Map & Tasks	Full year of problem-based curriculum tasks from Emergent Math.	Algebra 2 or Math 3		Abby Bates						
Full Year Resources	College Prep Math (Texas) - remedial math for high school seniors	Planning document - full year hyperdoc with my lessons, CYUs, reflections, etc. Updates are in process as it is a working document.	Texas College Prep Math	Other than the Swivl link (which has to remain restricted) the other links are open. If you click one that I did not open, request access - there are lots of links and I am working on verifying that they are all open.	Deborah Harper						
Full Year Resources	New and REVISED 23/24 College Prep Math (Texas) - remedial for high school seniors	Full Year planning document - with hyperlinks to all thin slices, cyus, notes, (23/24 version) test questions, self assessment tools, etc.	Texas College Prep Math	Working document - updates and reflections continuing throughout the year	Deborah Harper						
Full Year Resources	BTC REVEAL Algebra 2	BTC Resources	**BTC Algebra 2 23-24**		Candy Miller (FCHS)						
Full Year Chapter 13 and 14 Rubrics									Chapter 13 Navigation Instruments, Chapter 14 Grading Rubric and Definition of Standards	https://drive.google.com/drive/folders/1Ur-fu6D01jYnvsVeDAG8hi0waNTmCcvb?usp=drive_link	Don Newman
	Key Features of Functions										
Functions- Intro & Key Features	domain & range thin slicing	Students are given a domain and range and need to draw a function that fulfills the restrictions.	https://docs.google.com/document/d/1d3n_QeYtgkPNTBnE_VE833zN8htJDiilFfe0yr7aMt4/edit?usp=drivesdk	task from @AnkerMath	Abby Bates						
Functions- Intro & Key Features	Thin Slicing/Smudged Math - domain/range, x & y intercepts, positive/negative intervals, increasing/decreasing intervals		1-1 Key Features of Functions	Teacher created	Don Newman	Domain/range, x & y intercepts, positive/negative intervals, increasing/decreasing intervals	https://drive.google.com/file/d/1Wb-p9mF1qhqcb0Rtq7EK-tKxZNu3sI5C/view?usp=sharing	Don Newman			
	Slope and Rate of Change	Thin-slicing	https://drive.google.com/file/d/1s9v2FaXotQdXjnr	Teacher-Created	Todd Nelson						
	Linear Inverses	thin slicing	https://docs.google.com/document/d/1JXFhrN95PzDNR0xf23Pp841I1Gij4m0tQRD3GOwjSYc/edit?usp=sharing	Teacher Created	Shannon Jenks						
	Increasing, Decreasing, Constant Intervals, Local Max, Local Min, Domain and Range	Thin slicing	https://docs.google.com/document/d/1qDyHb2SMJoqxTqDDAgClFwW4dUOTyWAo6T_jBBI5qxg/edit?usp=sharing	Teacher Created	Jennifer Gladbach						
Functions- Intro & Key Features	Domain, Range, Shifts	Thin slicing	3-2 Basic Key Features	Teacher Created	Amber Riel						
Functions- Intro & Key Features	Domain, Range, Shifts	CYU self-grading	3-3 Basic Key Features Review	Teacher Created	Amber Riel						
	Domain, Range, Shifts, End Behavior, Intercepts	Think slicing	4-2 Common Key Features	Teacher Created	Amber Riel						
	Domain, Range, Shifts, End Behavior, Intercepts	CYU self-grading	4-3 Common Key Features Review	Teacher Created	Amber Riel						
	Key Features of Various Functions in Various Forms	Thin slicing	5-1 Forms of Functions	Teacher Created	Amber Riel						
	Key Features of Various Functions in Various Forms	CYU self-grading	5-3 Forms of Functions Review	Teacher Created	Amber Riel						
	Key Features of Linear, Absolute Value, Exponential, Quadratic	Thin slicing	6-1 Movie Madness	Teacher Created	Amber Riel						
	Key Features of Radical, Polynomial, Rational, Logarithmic	Thin slicing	6-2 The New MCU	Teacher Created	Amber Riel						
	Key Features of Functions Puzzle Reveal	CYU self-grading	Puzzle 1 Alg1	Teacher Created	Amber Riel						
	Key Features of Functions Puzzle Reveal	CYU self-grading	Puzzle 3 Alg2	Teacher Created	Amber Riel						
	Key Features of Functions Puzzle Reveal	CYU self-grading		Teacher Created	Amber Riel						
	Key Features of Functions Puzzle Reveal	CYU self-grading	Puzzle 4 Alg2	Teacher Created	Amber Riel						
	Solving Equations & Inequalities										
	Solving Absolute Value Equations	Thin-slicing	https://drive.google.com/file/d/1UJIFJfK6ylKoqsTnhui90NCHGh3T-8Cq/view?usp=sharing	Teacher-Created	Todd Nelson						
	Solving Equations (various types)	Small groups of thin slicing problems- absolute value, simple rational (fraction busters), quadratic, square root, systems w/ substitution.	https://docs.google.com/presentation/d/1wajvcpt76kz1WAfA9UAP2eZd3LkJzOeenOQUs_JzSaw/edit?usp=drivesdk	teacher created- hand written, but hopefully will have time to type up at some point	Abby Bates						
	Solving Linear Equations	Thin-slicing	https://drive.google.com/file/d/1ryreR4EJ7LLHOud5-olzleQl1voO1s8x/view?usp=sharing	Teacher-Created	Todd Nelson						
	Solving Inequalities Sequence (various types)	https://docs.google.com/presentation/d/125y182-EqffJVmOBSB4rrlmKzBONlLXddsT7wRVB1Ug/edit?usp=drivesdk	https://docs.google.com/presentation/d/125y182-EqffJVmOBSB4rrlmKzBONlLXddsT7wRVB1Ug/edit?usp=drivesdk	teacher-created	Abby Bates						
	Solving Equations and Inequalities by Graphing	Thin slicing, requires graphing on VNPS	https://docs.google.com/document/d/1fl_aWANUxlSljH6cpu1RAQ-4bqhazLr6BB4maRXVe-M/edit?usp=sharing	Teacher created	Don Newman						
	Solving Linear Inequalities	Thin-slicing	https://drive.google.com/file/d/1s7tEpi-OxZTGhn8W-yW8U3kQfqJylfD6/view?usp=sharing	Teacher-Created	Todd Nelson						

	Writing Linear Equations	Thin-slicing	https://drive.google.com/file/d/1s6FSrdg9g5UefnZ	Teacher-Created	Todd Nelson
	Graphing Linear Inequalities	Thin-slicing	https://drive.google.com/file/d/1sG7gcmAd9Xjs2I	Teacher-Created	Todd Nelson
	Linear Functions and Systems				
	Solving Systems of 3 Linear Equations with 3 Variables	Thin slicing	https://docs.google.com/document/d/1injSZb2wAaPQlkhM2mtbWiVWv22W1JTgdtR4QHHAj70/edit?usp=sharing	Teacher created	Don Newman
	Solving systems of 3x3s	Thin slicing	https://drive.google.com/file/d/1TiLO-_vPS,	Teacher created	Betsy Anderson
	Solving Systems of Equations (2x2)	Thin slicing	https://drive.google.com/file/d/1s-vNCcmrYQl6k_X-wjNVRjJ9sFRny7B-/view?usp=sharing	Teacher-Created	Todd Nelson
	Solving Systems of Equations (3x3)	Thin-slicing	https://drive.google.com/file/d/1s0nxeWFWeaYf94MvbpLGU88JFC8ypVWh/view?usp=sharing	Teacher-Created (Thanks to Don Newman!)	Todd Nelson
	Water jug task	Desmos Activity	2-2 Measuring Up	Teacher-Created	Amber Riel
	Transformation of Functions				
	Transforming Parent Functions	Students graph parent functions and then predict (sketch) what transformed functions will look like. Graphic Organizer	Slides	I had students do this after we had looked at transforming parabolas already (see tasks below for transforming parabolas) and we also looked at Desmos activities "What's my Transformation?" and "Marbleslides: Parabolas." Students did a great job and caught on well to the shifting of the different functions. We did this over a few days and recorded what they learned on a graphic organizer (in hindsight, a lot of equations to fit, so you may want to streamline it).	Created by Abby Bates
	Graphing Translations of Functions	Thin slicing, requires graphing on VNPS	https://docs.google.com/document/d/1NkrMO5JHq6Sr6nPIHY86wBGSpiatz7BwPkmOpxCoj5o/edit?usp=sharing	Teacher created	Don Newman
	Transformation of Functions	Thin-slicing, requires graphing on VNPS	https://drive.google.com/file/d/1tCl3mKe8TqVM-N	Teacher-Created (Thanks to Don Newman!)	Todd Nelson
	Transformation of Functions - Dilations	Thin-Slicing, requires graphing on VNPS	https://drive.google.com/file/d/1i6rQlmSzRqyCQky3-5kdXlOQEktNXPpo/view?usp=sharing	Teacher-Created (Thanks to Don Newman and Todd Nelson!	Louis Lizima
	What's My Transformation (on my back)?	Students get a transformed graph of a new function (cubic, sq root, rational, abs value) on their back and have to ask yes/no questions about it in order to write the equation of their function.	https://docs.google.com/presentation/d/1UKVnrQrV-YFqsZVyVXZ3v9Myo07femMOztG_dofM5D0/edit?usp=drivesdk	teacher created, based on Julia Anker's "polynomial on my back" activity	Abby Bates
	Transformations of Functions via Desmos activity	Thin slicing	2-1 What's the Function? Marbleslides	Teacher Created	Amber Riel
	Linear & Quadratic Transformations (+Coding Alterations?) Game in Scratch	Math Game - Guide Spiderman to the target on the opposite building by transforming Linear and Quadratic Equations. Avoid the vilains!	https://scratch.mit.edu/projects/790846302	Teacher Created	Eric Houston
	g				
	Quadratic Functions and Equations				
	Tranforming Parabolas- Will it Hit the Hoop? and Sliders	Desmos Activity Builder: "Will it hit the hoop?" Desmos Graphing Calc with sliders	Will it hit the hoop? Sliders- Parabola	I had students discuss with their partner "what do you notice? what do you wonder?" Then they took notes on how the different parameters affected the graph.	Abby Bates
	Vertex Form	Thin slicing, assumes knowledge of transformations	https://docs.google.com/document/d/1q4zLZc9tAa1P3P24bHSK7cVtzUN5LrfmNfb2vHtjRW8/edit?usp=sharing	Teacher created	Don Newman
	Standard Form	Thin slicing, assumes knowledge of vertex form	https://docs.google.com/document/d/1NSiw2T_ksadXPuWw-0BqcUviZdKcvT1HP2EABwV1pQg/edit?usp=sharing	Teacher created	Don Newman
	Review of factoring ax^2+bx+c, a>1	Thin slicing/smudged math for factoring quadratics by grouping	https://docs.google.com/document/d/1avruCXUhL8QuqZycpRlxqYbhM7jgnGu_1Sz4qZM2hkU/edit?usp=sharing	Teacher created	Don Newman
	Factored Form/Solving by Factoring	Thin slicing	https://docs.google.com/document/d/1GXr3RvtPLWmfoK9pyE2EBXav12E5kB8aS1bdbNFhVtw/edit?usp=sharing	Teacher created	Don Newman
	Positive/Negative Intervals of Quadratics	Thin slicing	https://docs.google.com/document/d/1S0v_pqwDdV-Tu6uBDqcMcCKcOE9xqjf36qLK7JB1d3g/edit?usp=sharing	Teacher created	Don Newman
	Introduction to Complex Numbers	Thin slicing	https://docs.google.com/document/d/1Zhpi8FGrRLqliRsHCqLuVsXFjC4dQrk_CGNRB02vaBk/edit?usp=sharing	Teacher created	Don Newman

	Adding/Subtracting Complex Numbers	Thin slicing	https://docs.google.com/document/d/1kRoyeWKQpshewkm8zdMmnO-4m34pbaP_LPDt1Rkwv8k/edit?usp=sharing	Teacher created	Don Newman						
	Multiplying/Dividing Complex Numbers	Thin slicing	https://docs.google.com/document/d/1k7ft_0Q5pS3OYE3PvDwSRYKdNwEd9v--k1vLqJxq5J8/edit?usp=sharing	Teacher created	Don Newman						
	Completing the Square	Thin slicing	https://docs.google.com/document/d/1jK86OVSTCfhE0u4UtlCymS5t72Ps_jNbY-ILRVkI4Ik/edit?usp=sharing	Teacher created	Don Newman						
	The Quadratic Formula	Thin slicing, derive the quadratic formula by completing the square on the standard form	https://docs.google.com/document/d/1nKPtTdDiDo0UJBW6unTDr9S19Guti0JHYdvFgaUO-cw/edit?usp=sharing	Teacher created	Don Newman						
	The Discriminant	Thin slicing	https://docs.google.com/document/d/19O6ZRXKSjeW1x3helY7qLFnPeQ_N9RbCBsfiqDD3wiQ/edit?usp=sharing	Teacher created	Don Newman						
	Quadratic Application Problems	Application - max/min, zeros, etc	https://docs.google.com/document/d/1sotBtaXnp6P_8PaVt0mnalVDX66XKwIT/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true	Pulled from different text books	Betsy Anderson						
	Complex Numbers	Thin-slicing	https://drive.google.com/file/d/1x7_rKV_Oc3wSlu	Teacher-Created (Thanks to Don Newman!)	Todd Nelson						
	Vertex Form Quadratics (Snatch It Match It)	CYU to match Vertex Form Graphs with Equations INSTRUCTIONS: https://docs.google.com/document/d/14cb0GyRUR3XckFAmOS0tTybyN8GNq1mKiFRVZAzM4Qw/edit?usp=sharing	ACTIVITY: https://drive.google.com/file/d/1bSw76YmrukccnBZIEx_z7rGX39CHBUZb/view?usp=sharing	Created by me	Karen H. Collins						
	Factoring	thin slicing	8-1 Rescue Mission • Activity Builder by Desmos	8-2 Bowser's Castle Test • Activity Builder by D	Amber Riel						
	Function Notation	Introduces f(x)+C and f(ax) notation through thin slicing and some self-checking. Does not combine operations. Incorporates linear and quadratic functions.	https://docs.google.com/document/d/10Al6g5F0U4ZHOHT4-1Jml7AZBBNGtYobbu1Ht8R-pHw/edit?usp=sharing		Teacher created	Barbra Steinhurst					
	Polynomial Functions										
	Introduction to Polynomials	Thin slicing	https://docs.google.com/document/d/1ryhhNu5pC9LDAR-sZYSGkMQBfr8UtEF6HlUYqYxftTk/edit?usp=sharing	Teacher created	Don Newman						
	Adding/Subtracting/Multiplying Polynomials	Thin slicing	https://docs.google.com/document/d/1DVrIDkHHV9OdWVnbTt-KwFfkxHJLSI1hpCqyarp77sA/edit?usp=sharing	Teacher created	Don Newman						
	Polynomial Identities	Thin slicing	https://docs.google.com/document/d/1-P-bUAXEHvvUiC6P2fVfSPd2NJedTodhGAHHm4XSkec/edit?usp=sharing	Teacher created	Don Newman						
	The Binomial Theorm	Thin slicing	https://docs.google.com/document/d/1JimV-2jibjLcX-2tLV5nGlBENdnFxxPs8xltO8elySQ/edit?usp=sharing	Teacher created	Don Newman						
	Polynomial Long Division	Thin slicing	https://docs.google.com/document/d/11ne-bKD2ZuRlfEsMr2jR86BOWZNU7RZOt4CjFpseMbA/edit?usp=sharing	Teacher created	Don Newman						
	Synthetic Division	Thin slicing/smudged math	https://docs.google.com/document/d/1UAlSAPmsO3lBGTNSs4qRp4Kv46cTAShGAchrizdRFwg/edit?usp=sharing	Teacher created	Don Newman						
	Graphing Polynomial Functions	Thin slicing	https://docs.google.com/document/d/1yptVQSyllgsTqBTqBn8fFuuUw__w0pBp9MrssoeAcXM/edit?usp=sharing	Teacher created	Don Newman						
	Rules for Graphing Polynomial Functions / End Behavior	Thin slicing	https://docs.google.com/presentation/d/1ZlN_GsNXZmH1sZmflPEmJKjhyH8wyZebkLzU6Mg4y6g/edit?usp=sharing	Teacher Created	Ginny Enfield						
	Findng Real and Complex Zeros	Thin slicing	https://docs.google.com/document/d/1zl7pWCYGYGyz7MShqpsCxL5LwEeh1-ODro1zGn0KSZQ/edit?usp=sharing	Teacher created	Don Newman						
	Cubic Application	USPS maximize volume with dimension restrictions task	https://docs.google.com/document/d/1vjS_i6POdBZiv75bkmI5lobDfOMMxctY/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true	SpringBoard Alg 2 Problem	Betsy Anderson						
	Remainder and Factor Theorems	Thin Slicing	https://drive.google.com/file/d/1ZXXo1Ewo4jaQe3LQ1INyushbG51SykB1/view?usp=sharing	Teacher-Created	Todd Nelson						
	Roots and Zeros	Thin Slicing? Probably not.	https://drive.google.com/file/d/1ZbYPkvSwRz14OTYJ0FqHx1C7-vU5M43Z/view?usp=sharing	Teacher-Created	Todd Nelson						
	End Behavior & Odd or Even degree of functions	Discovery - thin slicing & summary note sheet	https://docs.google.com/document/d/1OmuD94g0kCOCxQe6RnB9-y5Xd4_YktTSKq2ebTE7vio/copy?usp=sharing and https://docs.google.com/document/d/1GTeqbxOiw529AjUIyG5aNXb1RVKTknODP8I1YWtFe3g/copy?usp=sharing	Teacher created- Students graph different degree polynomials to discover how end behavior depends on the highest degree and leading coefficient of a polynomial function.	Elaine Kaiser						
	Factoring	thin slicing	8-1 Rescue Mission • Activity Builder by Desmos	8-2 Bowser's Castle Test • Activity Builder by D	Amber Riel						

	Polynomial on my Back	students get a mystery polynomial on their back (tap or paperclip) and have to sketch their mystery graph by asking questions	https://docs.google.com/presentation/d/1_SHMWAcsd91-ZLe_66xLVXEy_O92-TqCEthytPOFqBg/edit?usp=drivesdk	link for graphs in the presentation notes. Task from Julia Anker (shared on Twitter @AnkerMath)	Abby Bates						
	Rational Functions										
	Get Real! Be Rational!	Thin slicing that leads to simplifying rationals in standard form.	Get Real! Be Rational!	These are Google slides that are set up with columns for discussion if being used in remote learning situations or for students to use to take notes (explanation of their steps and writing the general strategy). The problem sets progress through rewriting numbers as products of perfect squares and numbers, simplifying fractions, radicals, fractions with radicals, radicals with fractions, rationalizing the denominator, complex numbers, factoring quadratics using special patterns, factoring polynomials, up to simplifying rationals in standard form. Sometimes I assign the last problem in the set as CYU.	Amber Riel						
	Inverse Variation and the Reciprocal Function	Thin slicing (including graphing)	https://docs.google.com/document/d/1ZAUzc0LEy5iUAG63nATV35P_cNFdyTVRa8ddGURVrPo/edit?usp=sharing	Teacher created	Don Newman						
	Graphing Rational Functions by Translating the Reciprocal Function	Thin slicing (including graphing)	https://docs.google.com/document/d/1EP-Oecz04KekviaagLJhY4iBTBCc1H7Stx5WnOm9UMU/edit?usp=sharing	Teacher created	Don Newman						
	Snatch It Match It Graphing Rational Functions using Translations	Good activity for a CYU_ INSTRUCTIONS: https://docs.google.com/document/d/14cb0GyRUR3XckFAmOS0tTybyN8GNg1mKiFRVZAzM4Qw/edit?usp=sharing	Graphs: https://drive.google.com/file/d/1rv3Nc6l4Jpqius4DBTJN90zUoEthdOBl/view?usp=sharing Equations: https://drive.google.com/file/d/1qP4Z8WW6O9e8yMviVEqFZ0xA6SDpu3lU/view?usp=sharing	Created by me	Karen H. Collins						
	Vertical and Horizontal Asymptotes and Graphing Rational Functions	Thin slicing (including graphing)	https://docs.google.com/document/d/1kHDEbRnaHB5iDsO92YxqtAr1NylDNG6vjc-X3qgK08Y/edit?usp=sharing	Teacher created	Don Newman						
	Simplfying and Multiplying Rational Expressions	Thin slicing	https://docs.google.com/document/d/1zTFt9fkQNzR_o7ekIanPTv8iJeGc8OVlZ_Zx6VrcIlI/edit?usp=sharing	Teacher created	Don Newman						
	Dividing Rational Expressions	Thin slicing	https://docs.google.com/document/d/1-AUsfRHNnpehMe5fjJd2AxO0pfas5RnOHqfSoH_focQ/edit?usp=sharing	Teacher created	Don Newman						
	Adding and Subtracting Rational Expressions	Thin slicing	https://docs.google.com/document/d/1eMaC7e80187_zQ9qybxu1py8y7GAZhJKZb77OKSsYwA/edit?usp=sharing	Teacher created	Don Newman						
	Simplifying Complex Fractions	Thin slicing	https://docs.google.com/document/d/1rmAizwrjr7sZ7MRzLalOJhQ3EjG2tPDZVDHKDMqaO1c/edit?usp=sharing	Teacher created	Don Newman						
	Solving Rational Equations	Thin slicing	https://docs.google.com/document/d/1e1J3kd_L3rq8srwo38Phi7VXjIvEQ3v7OYOJuU2jFNA/edit?usp=sharing	Teacher created	Don Newman	I put this in a Google drawing, same information	https://docs.google.com/drawings/d/1fxilzmeRvExx_Aq2szFDkzRMqOOb4m9fwblyCJTHGak/edit?usp=share_link	Cory Kollister			
	Exponent Properties	Thin Slicing	https://docs.google.com/document/d/1FerNvo4OHrIlwVa5SCH2kJDVCWJeIVHL/edit?usp=sharing&ouid=100076970735763483777&rtpof=true&sd=true		Martin Cornejo Maldonado						
	Exponent Properties	CYU	https://docs.google.com/document/d/1_fSNuLSbTe24IW-XR-yYpeAQ7CsT7acS/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true		Martin Cornejo Maldonado						
	Discovers exponents laws	Thin slicing	https://drive.google.com/file/d/1Q1PYU2TNdGcDJ2GacTJNzSBBOdSambba/view?usp=share_link	Teacher created	Étienne Perron						
	Intro to Exponent Properties	Thin Slicing and Check Your Understanding	https://docs.google.com/document/d/1FerNvo4OHrIlwVa5SCH2kJDVCWJeIVHL/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true https://docs.google.com/document/d/1_fSNuLSbTe24IW-XR-yYpeAQ7CsT7acS/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true	Teacher Created	Martin Cornejo						
	Intro to Rational Exponents	Thin Slicing and Check Your Understanding	https://docs.google.com/document/d/13cULLoZXohXwRk1mDQpMQPGgMx4pR9p3/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true https://docs.google.com/document/d/1HEz3dPDULIDLBNDUJ1SwA2cTs6NZz-UP/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true	Teacher Created	Martin Cornejo						

	nth Roots, Radicals, and Rational Exp	Thin slicing	https://docs.google.com/document/d/1A2DDnfMWs8V3dBPROk2uD76_wqh6jDYvFbuHZGeLdBk/edit?usp=sharing	Teacher created	Don Newman						
	Simplifying Radical Expressions	Thin Slicing and Check Your Understanding	https://docs.google.com/document/d/1MC8dH2PA-DlUsjpboqM_hiJz_yBuvW-x/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true https://docs.google.com/document/d/1mvmO_7vtuv01qQCOpfcevSA-FnxSTsxt/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true	Teacher Created	Martin Cornejo						
	Properties of Radicals and Rational Exponents	Thin slicing	https://docs.google.com/document/d/1c2hcvZqyg_bYagdtHcblApOrpqPpmTOOdjdsBSScOY4/edit?usp=sharing	Teacher created	Don Newman						
	Adding and Subtracting Radicals	Thin Slicing	https://docs.google.com/presentation/d/16Su41CKJ4oIKM_5P1c2H241NNU0WyUZIftr-tZ-KCLk/edit#slide=id.g15315a5c4c2_0_15	Teacher Created	Ginny Enfield						
	Adding, Subtracting, Multiplying and dividing Radical Expressions	Thin slicing and Check Your Undertanding	https://docs.google.com/document/d/1b4OSsYuw0a-8ku7UJJLvF3MjcVsc4sqY/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true https://docs.google.com/document/d/1nTf8hz_Tu6n5DESbUS57Bjt5oKNxVcDG/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true	Teacher Created	Martin Cornejo						
	Adding, Subtracting, Multiplying, and Dividing Radical Expressions	Thin slicing	https://docs.google.com/document/d/12pzwM_SNwfGFQ8Asag0WQXcG7UUm6NvAuJ6zbVo4d8k/edit?usp=sharing	Teacher created	Don Newman						
	Intro to Radicals and operations with radicals (just using square roots)	Thin slicing	https://docs.google.com/presentation/d/1WyHCX_LGHMuwmwc_0Cd4xqJgpveKsVNl/edit?usp=sharing&ouid=112623210525955378722&rtpof=true&sd=true	Teacher created (for MCR3U - Ontario)	Connie Newman						
	Graphs of Radical Functions	Thin Slicing and Check Your Understanding	https://docs.google.com/document/d/18LX3diQb7-aMd8DdO8puAl50TlCCFXBO/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true https://docs.google.com/document/d/1zvugMfv5b72wPN6EDWAnOw1jf5cYubCz/edit?usp=sharing&ouid=112015033253868945630&rtpof=true&sd=true	Teacher Created	Martin Cornejo						
	Graphing Radical Functions	Thin slicing	https://docs.google.com/document/d/1mad8zvxOmZrKJI5uwkP12iRJAjeSsniqmVW1-Zscskg/edit?usp=sharing	Teacher created	Don Newman						
	Solving Radical Equations with One Radical	Thin slicing	https://docs.google.com/document/d/1UWo-UAQ6r1Zhd7mfGUvzwBHc-5fZ2NnEJRd3GtTJz3U/edit?usp=sharing	Teacher created This is a typed version ready to use with students. https://docs.google.com/presentation/d/1ZHm4KbY4IMjJeriO-Dzsf70qJtZ5NEot/edit?usp=sharing&ouid=114379333109067944035&rtpof=true&sd=true	Don Newman						
	g	Thin slicing	https://docs.google.com/document/d/1p3B6_tcSPQy4KG3ps1MyBHxAn20EWjQeNKQ51o8WR04/edit?usp=sharing	Teacher created	Don Newman						
	Inverse Relations and Functions	Thin slicing	https://docs.google.com/document/d/1QXCqrOR5WZL9QbkFf25QUGnCX53sKIxSHdpphKapGYM/edit?usp=sharing	Teacher created	Don Newman						
	Inverse Functions and Restricting the Domain	Thin slicing	https://docs.google.com/document/d/1Cd2uqfxcH7Y8ksTp0oVhbFTRyv_oO2UqEi6GGfl-ebM/edit?usp=sharing	Teacher created	Don Newman						
	Simplifying Radical Expressions & Rational Exponents	thin slicing	8-1 Rescue Mission • Activity Builder by Desmos	8-2 Bowser's Castle Test • Activity Builder by D	Amber Riel						
	Exponential and Logarithmic Functions										
	Learning Progression	Thin slicing with exponential and logarithmic equations	Solving Exponential and Log Equations Learning Progression	The first sets of 4 are exponential, the next 3 sets are logarithmic. The first 2 sets can be solved without a calculator by equating bases, after that, students will need a calculator.	Janet Slesinski						
	Exponential Growth - doubling periods	Task developing formula - Water Hyacinth first, then Covid-19	- https://docs.google.com/document/d/1VMnnbvlmMSwrsi65H3BBXJ9iJ4wEUDBZ/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true https://docs.google.com/document/d/1EA5x4PlF0hCNeRRX_rG0t6blO2qfiQ9y/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true	The Water Hyacinth has been altered from a task found on Mooreschools.com It focuses on growth doubling every 12 days. Formula developed, then altered for shorter doubling period. After students complete this task, they are given one similar dealing with actual early covid numbers in the UK with a doubling period of 2.76 days. Link to original covid article at the bottom.	Betsy Anderson						
	Task: Trouble with Tribbles	Writing and graphing Exponential Growth and Decay Functions	https://docs.google.com/document/d/18AOprVDNbnrCbvk-wBrV83bq3ZkMaOUty4L1-_RwVq8/edit?usp=sharing	Teacher Created	Katrina Misley						
	Key Features of Exponential Functions	Thin slicing	https://docs.google.com/document/d/1M3MuL3JqEunpW6gk3pw9qcBdiORK5kFS7I6SbH57YiY/edit?usp=sharing	Teacher created	Don Newman						

	Compound Interest and the Natural Base	Thin slicing/derivation of the natural base, e	https://docs.google.com/document/d/1fcD1RQb_i7LWI8StqH8Pd26ynx_HJQQ4mmh78pYZqEY/edit?usp=sharing	Teacher created	Don Newman
	Introduction to Logarithms	Thin slicing	https://docs.google.com/document/d/17x0pzNNeqh9a_XemWUUbqXcI5nYGD-4TyTWkGhQSqwc/edit?usp=sharing	Teacher created	Don Newman
	Graphing Logarithmic Functions	Thin slicing	6-4 Part 1 Graphing Logarithmic Functions	Teacher created	Don Newman
	Inverses of Exponential and Logarithmic Functions	Thin slicing	https://docs.google.com/document/d/1LBCZ-2G69fR814DRDK7jjk1z64_x3sUXVKxyCCG6VYs/edit?usp=sharing	Teacher created	Don Newman
	Properties of Logarithms	Thin slicing/Smudged Math	https://docs.google.com/document/d/1msB775f1JCE9t5pGQuie_FRp9c5W0s9GOkpOw7n2Aic/edit?usp=sharing	Teacher created	Don Newman
	Exponential and Logarithmic Equations	Thin slicing	https://docs.google.com/document/d/1Js4q5Aiaf0G7hJ2qjXoni0CHTvZzRdMTIqeUCA6YEwI/edit?usp=sharing	Teacher created	Don Newman
	Exponent Rules AND Solving Exponenital equations with same base	Thin slicing	Exponent Rules AND solving exponential functions with same base	Teacher Created	Ellaina Willis
	Simplifying Exponential & Logarithmic Expressions	thin slicing	8-1 Rescue Mission • Activity Builder by Desmos	8-2 Bowser's Castle Test • Activity Builder by D	Amber Riel
	Trigonometric Functions				
	Unit Circle	Developing Unit Circle Degrees and Radians	https://docs.google.com/document/d/1oOgMyA2FQXQX09GxGQmHKqtaxI7tH5-I/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true		Betsy Anderson
	Unit Circle and Trig Functions	Free lessons from Math Medic that work really well with BTC.	https://mathmedic.com/course/Algebra-2/unit/9	I teach Math 3 so I used some trig lessons from the Alg 2 and used lessons from the Pre-Calc to do graph the trig functions. It went really well.	Abby Bates
	Basic Trig Ratios	Derive the trig ratios	https://docs.google.com/document/d/15JiWy7MtNmoQ2XHVKMju3XP9cbVPrFHo_iEYYNrT-T0/edit?usp=sharing	Teacher created	Don Newman
	Using Trig to Solve Right Triangles	Thin slicing	https://docs.google.com/document/d/1AvUiyc0UxL7y4KCyD9-kHr5LOcX3jWyXbrMyqjc9b34/edit?usp=sharing	Teacher created	Don Newman
	Special Right Triangles	Thin slicing	https://docs.google.com/document/d/1Z5KshW0J41PNsVT1L5vwxWcqmRNSShn2LchLiWPn6vg/edit?usp=sharing	Teacher created	Don Newman
	The Unit Circle	Thin slicing	https://docs.google.com/document/d/1hd2a89tNMjAG8Qikqx8SXKSjk3c8BdqzNhSfdB_YsEs/edit?usp=sharing	Teacher created	Don Newman
	Degrees and Radians	Thin slicing	https://docs.google.com/document/d/1PeNvLF2lqSXxFKRl_pcTRXANTODyaVPTUCkswds0hWU/edit?usp=sharing	Teacher created	Don Newman
	intro to the unit circle	Thin slicing	https://docs.google.com/document/d/1dy99rAPPg13wz5lVRcrLpVzLq6_3D_Fln7-SJOZEomQ/edit?usp=sharing	Teacher created	Sharon Soule
	Writing trig functions from a graph	Thin slicing (after previously establishing background knowledge of sine and cosine parent functions and transformations in general)	https://drive.google.com/file/d/1hsN8kr-Kax_hHoKAwdwEVNh9DtC2StUe/view?usp=share_link	Teacher created	Dana Harrington (dharrington@wmrhsd.org)
	Statistics (Normal curves / z-score)				
	Introduction	Thin Slicing	Empirical Rule - Thin Slicing	Teacher Created	Ellaina Willis
	Introduction	Thin Slicing	Z-score -- Thin Slicing	Teacher Created	Ellaina Willis
	Sequences and Series				
	Sigma Notation	Introduction / Thin Slicing	Sigma Notation Introduction	Teacher Created	Allison Simon

Timestamp	Grade level	Topic	Type of Resource	Resource Name	Description	Link to Task (include intro script if possib	Comments/Notes	Added By		Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By
	Precalculus			Functions and Graphs											
	Precalculus	Functions and Graphs	Thin Slicing	Writing Equations of Lines	Thin Slicing	Writing Equations of Lines	knowledge on this concept.	Emberg	during summer planning and has not been						
	Precalculus	Functions and Graphs	Thin Slicing	Domain of a Function	Thin Slicing	Determine the Domain of a Function	knowledge on this concept.	Emberg	during summer planning and has not been						
	Precalculus	Functions and Graphs	Thin Slicing	Properties of Functions	Thin Slicing	**Draw graphs with the given properties**	knowledge on this concept.	Emberg	during summer planning and has not been						
	Precalculus	Functions and Graphs	Thin Slicing	Transformations of Functions	Thin Slicing	Apply transformations	knowledge on this concept.	Emberg	during summer planning and has not been						
	Precalculus	Functions and Graphs	Thin Slicing	Difference Quotient	Thin Slicing	Evaluating Functions	knowledge on this concept.	Emberg	during summer planning and has not been						
	Precalculus	Functions and Graphs	Thin Slicing	Composition Functions	Thin Slicing	Evaluating Composition Functions	knowledge on this concept.	Emberg	during summer planning and has not been						
	Precalculus	Functions and Graphs	Thin Slicing	Review Equations of Lines	Thin Slicing	Review Equations of Lines	knowledge on this concept.	Stein Schreiber	Edited slightly from what I used last year						
	Precalculus	Functions and Graphs	Thin Slicing	Domain & Range Intro	Thin Slicing	Domain & Range with Graphs & Equations	Students may have seen this in previous classes	Stein Schreiber	Edited slightly from what I used last year						
	Precalculus	Functions and Graphs	Thin Slicing	Solving Equations Review	Thin Slicing	Solving Equations Review	Students should remember most of these	Stein Schreiber	Edited slightly from what I used last year						
	Precalculus	Functions and Graphs	Thin Slicing	Distance to Circle Equations	Thin Slicing	Distance btw points to circle equation	developing the equation of a circle.	Stein Schreiber	Edited slightly from what I used last year						
	Precalculus	Functions and Graphs	Unit Summary/Note Sheet	Unit Summary Note Page	Summary/Not	Unit Summary/Note sheet	Students can fill in important notes after each lesson	Emberg	during summer planning and has not been						
				Polynomial and Rational Functions											
	Precalculus	Polynomial and Rational Functions		Synthetic and Long Division	thin slice	Long division smudged math	division	Felissa Dixon	slicing for division						
				Exponential and Logarithmic Functions											
	Precalculus	Exponential and Logarithmic Functions		Introduction to Logarithms	Puzzle Task	Power Puzzle	The word power is used in place of log. This worked great last year don't let groups solve out of order	Stein Schreiber							
				Trigonometric Functions											
	Precalculus	Trigonometric Functions		Intro to Unit Circle & Trig	thin slicing	Trig Kick Off	About 3 days of lessons includes desmos link.	Stein Schreiber							
	Precalculus	Trigonometric Functions		Sine and Cosine Review	CYUWarm Up	Three Graphs	This is meant for after students have learned sine and cosine graphs to help them cement their understanding.	Melissa Battis							
	Precalculus	Trigonometric Functions		The other Four Graphs	thin slicing	csc,sec, cot, tan graphs	This builds from cosine and sine to the other four graphs. Worked really well with my class this year. By the time they got secant, they didnt feel the need to work cosecant but used that to help them build out their notes and consolidate.	Melissa Battis							
	Precalculus	Trigonometric Functions		Writing trig functions from a graph	Thin slicing	https://drive.google.com/file/d/1hsN8kr-Kax_hHoKAwdwEVNh9DIC2StUe/view?usp=share_link	(after previously establishing background knowledge of sine and cosine parent functions and transformations in general)	Dana Harrington (dharrington@wmrhsd.org)							
				Analytic Trig.											
	Precalculus	Analytic Trig.		Fundamental Identities	thin slicing	11.1b - Fundamental identities	This is my first try on this - I'd love feedback!	Felissa Dixon							
	Precalculus	Analytic Trig.		Trigonometric Identities Scaffol	thin slicing	https://docs.google.com/document/d/1urYFqduhcpbX8i-9w1VXLb-LNXP_X8vTAOWzpT4bIF8/edit?ut		Felissa Dixon							
	Precalculus	Analytic Trig.		Hands-on Activ	Scaffolded Tactivity for Verifying Trig Identities		I will write up a lesson plan for this as well	Chuck Fessler							
	Precalculus	Analytic Trig.		Solve Trig Equations	thin slicing	https://docs.google.com/document/d/1G5XAoKNAjuMku2cajOd9cPp9X_JJXrrd4ltaBZsfoNc/edit?usp		Felissa Dixon							
				Additional Topics in Trig.											
	Precalculus	Additional Topics in Trig.		Law of Cosines	thin slicing	https://drive.google.com/file/d/1cOOGWgdkbY	Guided discovery of the law of cosines	Megan Guidry	I did not create this - it was shared on the BTC facebook group and was worth posting in here						
	Precalculus	Additional Topics in Trig.		Law of Sines	thin slicing	https://drive.google.com/file/d/1cGioFWPX3al	Guided discovery of the law of sines	Megan Guidry	Also from NCTM						
	Precalculus	Systems of Equations and Inequalities		Systems of Equations and Inequalities											
	Precalculus	Sequences, Induction and Probability		Sequences, Induction and Probability											

Timestamp	Grade leve	Topic	Name of Task	Description	Link to Task (include intro scri	Comments/Notes	Added By	Creator/Author	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By
	Calculus	Full Year Resources	Tasks	Full course of tasks.	https://docs.google.com/spreads	Created and shared by Jeff @Matemagnifico on Twitter	Abby Bates							
	Calculus	Limits												
	Calculus	Limits	and Horizontal	problems/parts in 1-4 of the first	https://docs.google.com/docum	2x^2-3 if x was a really, really, really, big positive and	Jina Clute							
	Calculus	Limits	Limits - Basics		Limits BTC task sequence	this doc. Students are introduced to the formal definition and	Casey Warmbrand							
	Calculus	Limits	Evaluating Limits	Limits - Algebraic	BTC Evaluating Limits	students to recognize a variety of algebraic techniques for	Casey Warmbrand							
	Calculus	Limits	Continuity	Limits - Continuity	Continuity - BTC	docs...the definition is interspliced between two	Casey Warmbrand							
	Calculus	Limits	Limits - Algebrai	help kids see the variety of	Algebraic Limits Task Sequence	about methods to use for evalyating limits algebraically. Had	Allison Simon							
	Calculus	Differentiation												
	Calculus	Differentiation		Thin-sliced problems around the following learning targets:	Basic differentiation and derivative rules - extra unit (for	password is calculusbtc	Nick Bianculli							
	Calculus	Differentiation	Exploring Chain	multiplying out the binomial, then	8cVZCjVPV8qAp_3fPd6MNw7y		Crystal Preston							
	Calculus	Applications of Differentiation												
	Calculus	Integration												
	Calculus	Applications of Integration												
	Calculus	Applications of Integration	Volume by Revo	Thin slicing of all the permutations of disks, washers, and axes of revolutions	Volume by Revolution		Michael Hayashida							
	Calculus	Logarithmic, Exponential, and other Transcendental Functions												
	Calculus	Differential Equations												

Time Stamp	Grade Level	Topic/Domain	Type of Resource	Name of Task	Description	possible)	Comments/Notes	Added By	Notes Template- Topic	Notes Template- Link	Added By	Rubric- Topic/Description	Rubric- Link	Added By	Author/Creator
	Statistics	understanding Data													
	Statistics	understanding Data	Unit - Thinking Tasks	Distributons Unit -	Normality	Google Slides that have all 6 Thinking Tasks.	Edition.	Mark Krans							
	Statistics	between variables													
	Statistics	between variables		Scatterplots & LSRLs		Thinking Tasks									
	Statistics	Gathering Data													
	Statistics	Gathering Data		Experiments		Google Slides									
	Statistics	Probability													
	Statistics	Probability		Probability		Google Slide									
	Statistics	Probability		Random Variables		Google Slides									
	Statistics	Probability		Binomial & Geometric		Google Slides									
	Statistics	Sampling Distributions													
	Statistics	Sampling Distributions				Google Slide									
	Statistics	Inference for Categorical Data: Proportions													
	Statistics	Inference for Categorical Data: Proportions		Confidence Intervals		Google Slides									
	Statistics	Inference for Quantitative Data: Means													
	Statistics	Inference for Quantitative Data: Means		Confidence Intervals		Google Slides									
	Statistics	Inference for Categorical Data: Chi-Square													
	Statistics	Inference for Categorical Data: Slopes													

Form to submit resources: LFwXa1af3Tcw7

Timestamp	Grade Level:	Task Information Topic:
10.12.2019 13:02:03	High School - Geometr	#DEĞER!
10.24.2019 14:04:24	High School - Geometr	#DEĞER!
10.28.2023 23:40:31	1st grade	#DEĞER!
11.14.2023 14:36:39	2nd grade	#DEĞER!
11.11.2023 4:21:55	8th grade	#DEĞER!
11.8.2023 13:09:09	8th grade	#DEĞER!
1.7.2024 13:12:21	General Helpful Resources	
12.13.2023 11:16:51	General Helpful Resources	
11.25.2023 14:15:01	General Helpful Resources	
11.13.2023 12:35:01	General Helpful Resources	
12.27.2023 7:40:37	High school - Algebra T	#DEĞER!
11.9.2023 6:34:47	High school - Algebra T	#DEĞER!
10.24.2023 14:04:24	High School - Geometr	#DEĞER!
10.12.2023 13:02:03	High School - Geometr	#DEĞER!
10.28.2023 23:33:49	Kindergarten	#DEĞER!
01.01.2023 1:01:01	8th grade	Simultaneous Equations 8.EE.C
01.01.2023 1:01:01	8th grade	Simultaneous Equations 8.EE.C
01.01.2023 1:01:01	8th grade	Simultaneous Equations 8.EE.C
01.01.2023 1:01:01	8th grade	Simultaneous Equations 8.EE.C
01.01.2023 1:01:01	8th grade	Spheres 8.G.C
01.01.2023 1:01:01	8th grade	Spheres 8.G.C
12.26.2022 1:01:01	8th grade	Simultaneous Equations 8.EE.C
12.25.2022 1:01:01	8th grade	Simultaneous Equations 8.EE.C
12.24.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.23.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.22.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.21.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.20.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.19.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C

12.18.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.17.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.16.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.15.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.14.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
12.13.2022 1:01:01	8th grade	Solving Equations & Pairs of Simultaneous Equations 8.EE.C

12.12.2022 1:01:01	8th grade	Rational/Irrational Numbers 8.NS.A
12.11.2022 1:01:01	8th grade	Rational/Irrational Numbers 8.NS.A
12.10.2022 1:01:01	8th grade	Rational/Irrational Numbers 8.NS.A
12.09.2022 1:01:01	8th grade	Rational/Irrational Numbers 8.NS.A
12.08.2022 1:01:01	8th grade	Rational/Irrational Numbers 8.NS.A
12.07.2022 1:01:01	8th grade	Rational/Irrational Numbers 8.NS.A
12.06.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A
12.05.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A

12.04.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A
12.03.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A
12.02.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A
12.01.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A
11.30.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A
11.29.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A
11.28.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A
11.27.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A
11.26.2022 1:01:01	8th grade	Radical & Integer Exponents 8.EE.A

11.25.2022 1:01:01	8th grade	Pythagorean Theorem 8.G.B
11.24.2022 1:01:01	8th grade	Pythagorean Theorem 8.G.B
11.23.2022 1:01:01	8th grade	Pythagorean Theorem 8.G.B
11.22.2022 1:01:01	8th grade	Pythagorean Theorem 8.G.B
11.21.2022 1:01:01	8th grade	Pythagorean Theorem 8.G.B
11.20.2022 1:01:01	8th grade	Pythagorean Theorem 8.G.B
11.19.2022 1:01:01	8th grade	Pythagorean Theorem 8.G.B
11.18.2022 1:01:01	8th grade	Pythagorean Theorem 8.G.B
11.17.2022 1:01:01	8th grade	Functions 8.F.A and 8.F.B
11.16.2022 1:01:01	8th grade	Functions 8.F.A and 8.F.B

11.15.2022 1:01:01	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
11.14.2022 1:01:01	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
11.13.2022 1:01:01	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
11.12.2022 1:01:01	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
11.11.2022 1:01:01	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
11.10.2022 1:01:01	8th grade	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
11.09.2022 1:01:01	8th grade	Connecting Proportional Relationships, Lines, and Linear Equations 8.EE.B
11.08.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
11.07.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
11.06.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
11.05.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A

11.04.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
11.03.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
11.02.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
11.01.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
10.31.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
10.30.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
10.29.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
10.28.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
10.27.2022 1:01:01	8th grade	Congruence and Similarity 8.G.A
10.26.2022 1:01:01	8th grade	Bivariate Data 8.SP.A
10.25.2022 1:01:01	8th grade	**Full Year Resources**
10.24.2022 1:01:01	8th grade	**Full Year Resources**
10.23.2022 1:01:01	8th grade	**Full Year Resources**
10.22.2022 1:01:01	8th grade	**Full Year Resources**
10.21.2022 1:01:01	8th grade	**Full Year Resources**

10.20.2022 1:01:01	7th grade	Unit Rates and Proportional Relationships 7.
10.19.2022 1:01:01	7th grade	Unit Rates and Proportional Relationships 7.
10.18.2022 1:01:01	7th grade	Unit Rates and Proportional Relationships 7.

10.17.2022 1:01:01	7th grade	Unit Rates and Proportional Relationships 7.
10.16.2022 1:01:01	7th grade	Unit Rates and Proportional Relationships 7.
10.15.2022 1:01:01	7th grade	Unit Rates and Proportional Relationships 7.
10.14.2022 1:01:01	7th grade	Unit Rates and Proportional Relationships 7.
10.13.2022 1:01:01	7th grade	Unit Rates and Proportional Relationships 7.
10.12.2022 1:01:01	7th grade	**Unit Rates and Proportional Relationships 7.RP**
10.11.2022 1:01:01	7th grade	Statistics (Samples, Populations, Use Measu

10.10.2022 1:01:01	7th grade	Statistics (Samples, Populations, Use Measu
10.09.2022 1:01:01	7th grade	Statistics (Samples, Populations, Use Measu
10.08.2022 1:01:01	7th grade	Statistics (Samples, Populations, Use Measu
10.07.2022 1:01:01	7th grade	Statistics (Samples, Populations, Use Measu
10.06.2022 1:01:01	7th grade	Statistics (Samples, Populations, Use Measu
10.05.2022 1:01:01	7th grade	Statistics (Samples, Populations, Use Measu
10.04.2022 1:01:01	7th grade	**Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP**
10.03.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
10.02.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
10.01.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A

09.30.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.29.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.28.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.27.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.26.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.25.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.24.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.23.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A

09.22.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.21.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.20.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.19.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.18.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.17.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.16.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.15.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.14.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.13.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A

09.12.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.11.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.10.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A

09.09.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.08.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.07.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.06.2022 1:01:01	7th grade	Rational Number Operations 7.NS.A
09.05.2022 1:01:01	7th grade	**Rational Number Operations 7.NS.A**
09.04.2022 1:01:01	7th grade	**Other Resources**
09.03.2022 1:01:01	7th grade	**Other Resources**
09.02.2022 1:01:01	7th grade	**Other Resources**

09.01.2022 1:01:01	7th grade	**Other Resources**
08.31.2022 1:01:01	7th grade	**Other Resources**
08.30.2022 1:01:01	7th grade	**Other Resources**
08.29.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)
08.28.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)
08.27.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)
08.26.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)
08.25.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)

08.24.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)
08.23.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)
08.22.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)
08.21.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)
08.20.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)

08.19.2022 1:01:01	7th grade	Geometry (Angles, Circles, Scale drawings)
08.18.2022 1:01:01	7th grade	**Geometry (Angles, Circles, Scale drawings) 7.G**
08.17.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.16.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.15.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.14.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.13.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.12.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.11.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE

08.10.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.09.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.08.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.07.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.06.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.05.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.04.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE

08.03.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.02.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
08.01.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
07.31.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
07.30.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
07.29.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
07.28.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
07.27.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
07.26.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
07.25.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
07.24.2022 1:01:01	7th grade	Expressions, Equations, Inequalities 7.EE
07.23.2022 1:01:01	7th grade	**Expressions, Equations, Inequalities 7.EE**
07.22.2022 1:01:01	7th grade	**Full Year Resources**
07.21.2022 1:01:01	7th grade	**Full Year Resources**

07.20.2022 1:01:01	7th grade	**Full Year Resources**
07.19.2022 1:01:01	7th grade	**Full Year Resources**
07.18.2022 1:01:01	7th grade	**Full Year Resources**
07.17.2022 1:01:01	7th grade	**Full Year Resources**
07.16.2022 1:01:01	7th grade	**Full Year Resources**
07.15.2022 1:01:01	7th grade	**Full Year Resources**
07.14.2022 1:01:01	7th grade	**Full Year Resources**
07.13.2022 1:01:01	7th grade	**Full Year Resources**
07.12.2022 1:01:01	6th grade	
07.11.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)
07.10.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)

07.09.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)
07.08.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)
07.07.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)
07.06.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)
07.05.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)
07.04.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)
07.03.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)
07.02.2022 1:01:01	6th grade	Statistics (dot plots, box plots, histograms, measures of center and variability)

07.01.2022 1:01:01 6th grade

Statistics (dot plots, box plots, histograms, measures of center and variability)

06.30.2022 1:01:01 6th grade

Statistics (dot plots, box plots, histograms, measures of center and variability)

Statistics (dot plots, box plots, histograms, measures of center and variability)

06.29.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.28.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.27.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.26.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.25.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.24.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.23.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.22.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.21.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.20.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.19.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.18.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.17.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.16.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.15.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.14.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.13.2022 1:01:01 6th grade

Ratios, Rates, and Percents

06.12.2022 1:01:01 6th grade

		Ratios, Rates, and Percents
06.11.2022 1:01:01	6th grade	
		Ratios, Rates, and Percents
06.10.2022 1:01:01	6th grade	
		Ratios, Rates, and Percents
06.09.2022 1:01:01	6th grade	
		Ratios, Rates, and Percents
06.08.2022 1:01:01	6th grade	
		Ratios, Rates, and Percents
06.07.2022 1:01:01	6th grade	
	6th grade	**Ratios, Rates, and Percents**
06.06.2022 1:01:01		
06.05.2022 1:01:01	6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)
06.04.2022 1:01:01	6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)

06.03.2022 1:01:01	6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)
06.02.2022 1:01:01	6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)
06.01.2022 1:01:01	6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)
05.31.2022 1:01:01	6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)
05.30.2022 1:01:01	6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)

05.29.2022 1:01:01 6th grade	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)
05.28.2022 1:01:01 6th grade	**Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)**
05.27.2022 1:01:01 6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.26.2022 1:01:01 6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.25.2022 1:01:01 6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.24.2022 1:01:01 6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.23.2022 1:01:01 6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents

05.22.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.21.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.20.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.19.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.18.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents

05.17.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.16.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.15.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.14.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.13.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents

05.12.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.11.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.10.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.09.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.08.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.07.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.06.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.05.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.04.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.03.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.02.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
05.01.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents

04.30.2022 1:01:01	6th grade	Operations with Fractions and Decimals, Order of Operations, Exponents
04.29.2022 1:01:01	**6th grade**	**Operations with Fractions and Decimals, Order of Operations, Exponents**
04.28.2022 1:01:01	6th grade	Greatest Common Factor, Least Common Multiple
04.27.2022 1:01:01	6th grade	Greatest Common Factor, Least Common Multiple

04.26.2022 1:01:01	6th grade	Greatest Common Factor, Least Common Multiple
04.25.2022 1:01:01	6th grade	Greatest Common Factor, Least Common Multiple
04.24.2022 1:01:01	6th grade	Greatest Common Factor, Least Common Multiple
04.23.2022 1:01:01	6th grade	Greatest Common Factor, Least Common Multiple
04.22.2022 1:01:01	6th grade	Greatest Common Factor, Least Common Multiple
04.21.2022 1:01:01	6th grade	Greatest Common Factor, Least Common Multiple
04.20.2022 1:01:01	6th grade	Greatest Common Factor, Least Common Multiple
04.19.2022 1:01:01	6th grade	**Greatest Common Factor, Least Common Multiple**

04.18.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.17.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.16.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.15.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.14.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.13.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)

04.12.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.11.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.10.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.09.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.08.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.07.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.06.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)

04.05.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.04.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.03.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.02.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
04.01.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
03.31.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
03.30.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
03.29.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
03.28.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
03.27.2022 1:01:01	6th grade	Geometry (area, volume, surface area, nets)
03.26.2022 1:01:01	6th grade	**Geometry (area, volume, surface area, nets)**

03.25.2022 1:01:01	6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
03.24.2022 1:01:01	6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
03.23.2022 1:01:01	6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
03.22.2022 1:01:01	6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
03.21.2022 1:01:01	6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
03.20.2022 1:01:01	6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
03.19.2022 1:01:01	6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
03.18.2022 1:01:01	6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)

03.17.2022 1:01:01 6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
03.16.2022 1:01:01 6th grade	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
03.15.2022 1:01:01 6th grade	**Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)**
03.14.2022 1:01:01 6th grade	**Full Year Resources**
03.13.2022 1:01:01 6th grade	**Full Year Resources**
03.12.2022 1:01:01 6th grade	**Full Year Resources**
03.11.2022 1:01:01 6th grade	**Full Year Resources**

03.10.2022 1:01:01	6th grade	**Full Year Resources**
	6th grade	
03.09.2022 1:01:01		**Full Year Resources**
03.08.2022 1:01:01	**6th grade**	**Full Year Resources**
	5th grade	
03.07.2022 1:01:01		Operations and Thinking (grouping symbols, patterns) 5.OA
	5th grade	
03.06.2022 1:01:01		Operations and Thinking (grouping symbols, patterns) 5.OA
	5th grade	
03.05.2022 1:01:01		Operations and Thinking (grouping symbols, patterns) 5.OA
	5th grade	
03.04.2022 1:01:01		Operations and Thinking (grouping symbols, patterns) 5.OA
	5th grade	
03.03.2022 1:01:01		**Operations and Thinking (grouping symbols, patterns) 5.OA**
	5th grade	
03.02.2022 1:01:01		**Operations and Thinking (grouping s**
	5th grade	
03.01.2022 1:01:01		**Numbers and Operations - Fractions 5.NF**
	5th grade	
02.28.2022 1:01:01		**Numbers and Operations - Fractions 5.NF**
	5th grade	
02.27.2022 1:01:01		**Numbers and Operations - Fractions 5.NF**

02.26.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.25.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.24.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.23.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.22.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.21.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.20.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.19.2022 1:01:01		**Numbers and Operations - Fractions 5.NF**

02.18.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.17.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.16.2022 1:01:01	**5th grade**	**Numbers and Operations - Fractions 5.NF**
02.15.2022 1:01:01	**5th grade**	**Number and Operations in Base Ten 5.NBT.5-7**
02.14.2022 1:01:01	**5th grade**	**Number and Operations in Base Ten 5.NBT.5-7**
02.13.2022 1:01:01	**5th grade**	**Number and Operations in Base Ten 5.NBT.5-7**
02.12.2022 1:01:01	**5th grade**	**Number and Operations in Base Ten 5.NBT.5-7**
02.11.2022 1:01:01	**5th grade**	**Number and Operations in Base Ten 5.NBT.5-7**
02.10.2022 1:01:01		**Number and Operations in Base Ten 5.NBT.5-7**

02.09.2022 1:01:01	5th grade 5th grade	Number and Operations in Base Ten 5.BNT1-4
02.08.2022 1:01:01	5th grade	Number and Operations in Base Ten 5.BNT1-4
02.07.2022 1:01:01	5th grade	Number and Operations in Base Ten 5.BNT1-4
02.06.2022 1:01:01	5th grade	Number and Operations in Base Ten 5.BNT1-4
02.05.2022 1:01:01	5th grade	Number and Operations in Base Ten 5.NBT1-4
02.04.2022 1:01:01	5th grade 5th grade	Measurement & Data 5.MD
02.03.2022 1:01:01		Measurement & Data 5.MD
02.02.2022 1:01:01	5th grade	Measurement & Data 5.MD
02.01.2022 1:01:01	5th grade	Geometry 5.G
01.31.2022 1:01:01	5th grade	Full Year Resources
01.30.2022 1:01:01	5th grade 5th grade	Full Year Resources
01.29.2022 1:01:01	5th grade	Full Year Resources
01.28.2022 1:01:01		Full Year Resources
01.27.2022 1:01:01	4th grade	Use place-value understanding and properties of operations to perform multi-digit arithmetic.

01.26.2022 1:01:01	**4th grade**	**Use place-value understanding and properties of operations to perform multi-digit arithmetic.**
01.25.2022 1:01:01	**4th grade**	**Use place-value understanding and properties of operations to perform multi-digit arithmetic.**
01.24.2022 1:01:01	**4th grade**	**Understand decimal notation for fractions, and compare decimal fractions.**
01.23.2022 1:01:01	**4th grade**	**Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.**
01.22.2022 1:01:01	**4th grade**	**Represent and interpret data.**
01.21.2022 1:01:01	**4th grade**	**Geometric measurement: understand concepts of angle and measure angles.**
01.20.2022 1:01:01	**4th grade**	**Generate and analyze patterns.**
01.19.2022 1:01:01	**4th grade**	**Generate and analyze patterns.**
01.18.2022 1:01:01	**4th grade**	**Generate and analyze patterns.**
01.17.2022 1:01:01	**4th grade**	**Extend understanding of fraction equivalence and ordering.**

01.16.2022 1:01:01	**4th grade**	**Extend understanding of fraction equivalence and ordering.**
01.15.2022 1:01:01	**4th grade**	**Extend understanding of fraction equivalence and ordering.**
1.11.2024 15:58:16	5th grade	
1.17.2024 11:44:57	High school - Algebra Topics	
1.18.2024 10:25:28	6th grade	
1.21.2024 4:00:53	8th grade	
1.25.2024 6:02:45	8th grade	
1.25.2024 8:39:46	High school - Algebra Topics	
1.25.2024 9:03:45	High school - Algebra Topics	
1.29.2024 18:46:41	General Helpful Resources	
1.30.2024 20:48:16	General Helpful Resources	
2.2.2024 6:53:26	Statistics and Probability	
2.4.2024 16:45:37	High School - Geometry Topics	
2.4.2024 16:48:12	High School - Geometry Topics	
2.6.2024 6:55:13	High school - Algebra Topics	
2.6.2024 6:56:51	High school - Algebra Topics	
2.16.2024 11:43:56	Calculus	
2.26.2024 19:57:49	8th grade	
3.28.2024 7:38:45	General Helpful Resources	
4.4.2024 13:53:31	High school - Algebra Topics	
4.15.2024 10:43:05	7th grade	
4.25.2024 8:35:22	High School - Geometry Topics	
5.6.2024 8:55:50	High school - Algebra Topics	
5.21.2024 8:57:49	High school - Algebra Topics	
5.23.2024 7:32:11	General Helpful Resources	
5.24.2024 5:47:12	High School - Geometry Topics	
6.3.2024 1:12:31	Calculus	
6.3.2024 1:16:17	Calculus	
6.3.2024 1:20:29	Calculus	
6.3.2024 1:24:03	Calculus	
6.4.2024 20:17:00	High school - Algebra Topics	
6.11.2024 11:52:12	High school - Algebra Topics	
6.23.2024 18:25:07	5th grade	
6.23.2024 18:29:40	6th grade	
6.23.2024 18:32:02	High school - Algebra Topics	
7.24.2024 17:44:31	General Helpful Resources	
8.14.2024 7:22:19	General Helpful Resources	
8.18.2024 11:20:20	6th grade	
8.18.2024 11:23:00	6th grade	
8.22.2024 9:22:05	6th grade	
8.29.2024 12:05:45	High School - Geometry Topics	
9.2.2024 5:52:33	General Helpful Resources	
9.2.2024 5:53:53	General Helpful Resources	
9.3.2024 14:15:12	General Helpful Resources	
9.15.2024 13:55:20	3rd grade	

9.16.2024 18:36:59	General Helpful Resources	
9.21.2024 12:04:23	8th grade	
10.2.2024 19:58:53	3rd grade	
10.2.2024 20:25:33	3rd grade	
10.15.2024 7:23:32	5th grade	
10.15.2024 7:25:00	5th grade	
10.15.2024 7:26:09	5th grade	
10.15.2024 7:27:57	Statistics and Probability	
10.15.2024 7:29:28	Statistics and Probability	
10.18.2024 5:14:46	High school - Algebra Topics	
11.2.2024 6:00:23	6th grade	
01.14.2022 1:01:01	**4th grade**	**Extend understanding of fraction equivalence and ordering.**
01.13.2022 1:01:01	**4th grade**	**Draw and identify lines and angles, and classify shapes by properties of their lines and angles.**
01.12.2022 1:01:01	**4th grade**	**Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.**
01.11.2022 1:01:01	**4th grade**	**Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.**
01.10.2022 1:01:01	**4th grade**	**Full Year Resources**
01.09.2022 1:01:01	**4th grade**	**Full Year Resources**
01.08.2022 1:01:01	**4th grade**	**Full Year Resources**
01.07.2022 1:01:01	**4th grade**	**Full Year Resources**
01.06.2022 1:01:01	**4th grade**	**Full Year Resources**
01.05.2022 1:01:01	**4th grade**	**Full Year Resources**
01.04.2022 1:01:01	**4th grade**	**Full Year Resources**

01.03.2022 1:01:01	**4th grade**	**Full Year Resources**
01.02.2022 1:01:01	**4th grade**	**Full Year Resources**
01.01.2022 1:01:01	**4th grade**	**Full Year Resources**
12.31.2021 1:01:01	3rd grade	**Use place-value understanding and properties of operations to perform multi-digit arithmetic.**
12.30.2021 1:01:01	3rd grade	**Use place-value understanding and properties of operations to perform multi-digit arithmetic.**
12.29.2021 1:01:01	3rd grade	**Understand properties of multiplication and the relationship between multiplication and division.**
12.28.2021 1:01:01	3rd grade	**Solve problems involving the four operations, and identify and explain patterns in arithmetic.**
12.27.2021 1:01:01	3rd grade	**Solve problems involving the four operations, and identify and explain patterns in arithmetic.**
12.26.2021 1:01:01	3rd grade	**Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**

12.25.2021 1:01:01	3rd grade	**Represent and solve problems involving multiplication and division.**
12.24.2021 1:01:01	3rd grade	**Represent and solve problems involving multiplication and division.**
12.23.2021 1:01:01	3rd grade	**Represent and interpret data.**
12.22.2021 1:01:01	3rd grade	**Reason with shapes and their attributes.**
12.21.2021 1:01:01	3rd grade	**Reason with shapes and their attributes.**
12.20.2021 1:01:01	3rd grade	**Multiply and divide within 100.**
12.19.2021 1:01:01	3rd grade	**Multiply and divide within 100.**
12.18.2021 1:01:01	3rd grade	**Geometric measurement: understand concepts of area and relate area to multiplication and to addition.**
12.17.2021 1:01:01	3rd grade	**Geometric measurement: understand concepts of area and relate area to multiplication and to addition.**
12.16.2021 1:01:01	3rd grade	**Develop understanding of fractions as numbers.**
12.15.2021 1:01:01	3rd grade	**Develop understanding of fractions as numbers.**
12.14.2021 1:01:01	3rd grade	**Full Year Resources**
12.13.2021 1:01:01	3rd grade	**Full Year Resources**
12.12.2021 1:01:01	3rd grade	**Full Year Resources**
12.11.2021 1:01:01	3rd grade	**Full Year Resources**

12.10.2021 1:01:01	3rd grade	**Full Year Resources**
12.09.2021 1:01:01	3rd grade	**Full Year Resources**
12.08.2021 1:01:01	3rd grade	**Full Year Resources**
12.07.2021 1:01:01	3rd grade	**Full Year Resources**
12.06.2021 1:01:01	3rd grade	**Full Year Resources**
12.05.2021 1:01:01	3rd grade	**Full Year Resources**
12.04.2021 1:01:01	2nd grade	**Work with time and money.**
12.03.2021 1:01:01	2nd grade	**Work with equal groups of objects to gain foundations for multiplication.**
12.02.2021 1:01:01	2nd grade	**Work with equal groups of objects to gain foundations for multiplication.**
12.01.2021 1:01:01	2nd grade	**Use place-value understanding and properties of operations to add and subtract.**
11.30.2021 1:01:01	2nd grade	**Represent and interpret data.**
11.29.2021 1:01:01	2nd grade	**Relate addition and subtraction to length.**
11.28.2021 1:01:01	2nd grade	**Reason with shapes and their attributes.**
11.27.2021 1:01:01	2nd grade	**Measure and estimate lengths in standard units.**
11.26.2021 1:01:01	2nd grade	**Add and subtract within 20.**
11.25.2021 1:01:01	2nd grade	**Add and subtract within 20.**
11.24.2021 1:01:01		**Full Year Resources**

	2nd grade	
11.23.2021 1:01:01		**Full Year Resources**
	2nd grade	
11.22.2021 1:01:01		**Full Year Resources**
	2nd grade	
11.21.2021 1:01:01		**Full Year Resources**
	2nd grade	
11.20.2021 1:01:01		**Full Year Resources**
	2nd grade	
11.19.2021 1:01:01		**Full Year Resources**
	2nd grade	
11.18.2021 1:01:01		**Full Year Resources**
	2nd grade	
11.17.2021 1:01:01		**Full Year Resources**
11.16.2021 1:01:01	1st grade	**Work with addition and subtraction equations.**
11.15.2021 1:01:01	1st grade	**Use place-value understanding and properties of operations to add and subtract.**
11.14.2021 1:01:01	1st grade	**Understand place value.**
11.13.2021 1:01:01	1st grade	**Understand and apply properties of operations and the relationship between addition and subtraction.**
11.12.2021 1:01:01	1st grade	**Understand and apply properties of operations and the relationship between addition and subtraction.**
11.11.2021 1:01:01	1st grade	Tell and write time.
11.10.2021 1:01:01	1st grade	**Represent and solve problems involving addition and subtraction.**

11.09.2021 1:01:01	1st grade	**Represent and solve problems involving addition and subtraction.**
11.08.2021 1:01:01	1st grade	**Represent and solve problems involving addition and subtraction.**
11.07.2021 1:01:01	1st grade	Represent and interpret data.
11.06.2021 1:01:01	1st grade	Reason with shapes and their attributes.
11.05.2021 1:01:01	1st grade	Reason with shapes and their attributes.
11.04.2021 1:01:01	1st grade	Money
11.03.2021 1:01:01	1st grade	Money
11.02.2021 1:01:01	1st grade	**Measure lengths indirectly and by iterating length units.**
11.01.2021 1:01:01	1st grade	**Extend the counting sequence.**
10.31.2021 1:01:01	1st grade	**Extend the counting sequence.**
10.30.2021 1:01:01	1st grade	**Add and subtract within 20.**

10.29.2021 1:01:01	1st grade	**Add and subtract within 20.**
10.28.2021 1:01:01	1st grade	**Full Year Resources**
10.27.2021 1:01:01	1st grade	**Full Year Resources**
10.26.2021 1:01:01	1st grade	**Full Year Resources**
10.25.2021 1:01:01	1st grade	**Full Year Resources**
10.24.2021 1:01:01	1st grade	**Full Year Resources**
10.23.2021 1:01:01	1st grade	**Full Year Resources**
10.22.2021 1:01:01	1st grade	**Full Year Resources**
10.21.2021 1:01:01	1st grade	**Full Year Resources**
10.20.2021 1:01:01	1st grade	**Full Year Resources**
10.19.2021 1:01:01	1st grade	**Full Year Resources**
10.18.2021 1:01:01	Kindergarten	**Work with numbers 11-19 to gain foundations for place value.**
10.17.2021 1:01:01	Kindergarten	**Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**

10.16.2021 1:01:01	Kindergarten	**Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**
10.15.2021 1:01:01	Kindergarten	**Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**
10.14.2021 1:01:01	Kindergarten	**Identify and describe shares (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**
10.13.2021 1:01:01	Kindergarten	**Identify and describe shares (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**
10.12.2021 1:01:01	Kindergarten	**Describe and compare measureable attributes.**
10.11.2021 1:01:01	Kindergarten	**Count to tell the number of objects.**
10.10.2021 1:01:01	Kindergarten	**Count to tell the number of objects.**

10.09.2021 1:01:01	Kindergarten	**Count to tell the number of objects.**
10.08.2021 1:01:01	Kindergarten	**Compare numbers.**
10.07.2021 1:01:01	Kindergarten	**Classify objects and count the number of objects in each category.**
10.06.2021 1:01:01	Kindergarten	**Classify objects and count the number of objects in each category.**
10.05.2021 1:01:01	Kindergarten	**Analyze, compare, create, and compose shapes.**
10.04.2021 1:01:01	Kindergarten	**Full Year Resources**
10.03.2021 1:01:01	Kindergarten	**Full Year Resources**
10.02.2021 1:01:01	Kindergarten	**Full Year Resources**
10.01.2021 1:01:01	Kindergarten	**Full Year Resources**
09.30.2021 1:01:01	Kindergarten	**Full Year Resources**
09.29.2021 1:01:01	Kindergarten	**Full Year Resources**
09.28.2021 1:01:01	Kindergarten	**Full Year Resources**

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	Transformation of Functions

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Resource Type:	Task Name	Description
Thin Slice Task	Lines and Transversals	Great puzzles to introdu
Thin Slice Task	Deriving Distance Form	A series of thin-sliced p
Full Curriculum	OUR 1st grade	curriculum of thinking ta
Thin Slice	Reading an Analog Clo	thin-slice task reading a
Thin Slice	Board Work: Solving In	20 Thin Slicing problem
Thin Slice	Rate of change from tw	AI generated list of stor
Full Curriculum	Daily Algebra 1 BTC Ta	Daily tasks for Algebra
Thinking Task	Function or not - Real W	Given some basic pictu
Thin Slice Task	Deriving Distance Form	A series of thin-sliced p
Thin Slice Task	Lines and Transversals	Great puzzles to introdu
Full Curriculum	Open Up Resources fo	curriculum of thinking ta
	Problem String	
	Check Your	
	Intro Thin Slicing	
	Form to Slope	difficult standard form
	Cones, and Spheres	
	Problem String	
	Problem String	
	Solving Systems by Substitution	
	Multi-step equations error analysis	
	Task for launching systems of equations unit	
	Solving Linear Equations	
	Equations with Variables on Both Sides: Types of Solutions	
	Multi-Step Equations	

One and two step equations

Multi-step equations thin slicing

Increasingly more challenging equations with a few irregular answers

solving systems

Algebraic Equations Problem Sequence

Multi-step equations thin slicing (variation of the task above)

Solving Equations & Pairs of Simultaneous Equations 8.EE.C

	Open Locker Comparing/Ordering Numbers Estimating Square Roots using a Number Line	
	SUPER BEAR Identifying Rational/Irrational Numbers	
	Rational/Irrational Numbers 8.NS.A	
	Adapted IM/Open Up Resources Unit 7: Exponents and Scientific Notation to a BTC model	
	Full Lesson - exponent rules	Lesson plan includes links to the notes to future self (revised for 23/34 changes), cyu (mild, meduim, and spicy), thin slice prgression, test questions and study guide questions.

	Perfect Squares Full Lesson Evaluating Square Roots/Approximating Square Roots Bullseye/Target Practice (Simplifying Zero & Negative Exponents)	Lesson plan includes links to the notes to future self (revised for 23/34 changes), cyu (mild, meduim, and spicy), thin slice prgression, test questions and study guide questions.
	Exponent Rules- thin slicing	notes layout included in slides
	Product Rule	Thin Slice activity for product rule (multiplying exponential expressions with like bases)
	Exponents	
	Perfect Squares and Square Roots	
	Perfectly Imperfect Radical & Integer Exponents 8.EE.A	

Thin Sliced Problems	Expanded Tracks - Pythagorean Theorem
Mindset Mathematics- Pythagorean Theorem	
Discovering the Pyth Thm	
Squares Activity	
Ant (Pythagoras) Problem	
Full Lesson - Pythagorean Theorem	thin slice progression, notes (23/24 style) cyu, and test questions
Expanded Tracks - Application of Pythagorean Theorem	Train Problem
Pythagorean Theorem 8.G.B	
Functions 8.F.A and 8.F.B	

Discovering y = mx + b	Two-day lesson. First day develops connection between table and algebraic rule. Second day thin-slices problems so that students discover y = mx + b.
Deriving the Slope Formula	Thin slicing - students come up with a way to figure out how much y is changing as x goes up by 1.
Barbie Bungee	
Slope-Intercept Form	This is just a Google Slide with tasks. I'll move my other tasks over break.
Slope to Compare Unit Rates	
Unit on Proportional Relationships and Slope	
Connecting Proportional Relationships, Lines, and Linear Equations 8.EE.B	
Similar Shapes, Scale Factor Task (Open Middle)	
Transformation LOGO Scale Factor BTC - Thin Slicing	
Transformations Shortest Sequence Task (Open Middle)	

Rotations BTC - Thin Slicing
Reflections BTC - Thin Slicing
Translations BTC - Thin Slicing

Ms. Pac-Man (great 1st day of the unit!

Two Truths and a Lie

Mixed Review of Transformation Maps

Congruence Task

Dilations Tasks

Congruence and Similarity 8.G.A

Bivariate Data 8.SP.A

Meaningful Notes Non-Specific Graphic Organizers

Activity Tracker

Curriculum Map & Tasks

Teaching Through Problems Worth Solving

Full Curriculum Resources

.RP	Best Coins to Steal	Dan Meyer posted this blog and the second way of doing the problem would be great for a task.
.RP	Unit Conversions Railroad Task	Students will help a small business figure out how much railroad and gasoline they need for their new venture as well as what to charge their guests using unit rate and dimensional analysis
.RP	Solutions	Solution 1 consists of 80% benzene and 20% toluene. Solution 2 consists of 30% benzene and 70% toluene. (a) How many mL of Solution 1 must be added to 500 mL of Solution 2 in order to produce a solution that is 70% benzene? (b) How many mL of Solution 1 and how many mL of Solution 2 must be combined to form a 100 mL solution that is 50% benzene and 50% toluene? (c) Is there a combination of Solution 1 and Solution 2 that is 90% benzene and 10% toluene?

.RP	The Candy Jar Task	Students will identify the relationship between quantities as multiplicative (proportional) and will use one of several strategies (e.g., unit rate, scale factor, scaling up, cross-multiplication) and/or representations (e.g., table, picture, procedures, verbal description) to solve the task.
.RP	Scaled Copies	Future Forgetful Selfie Notes
.RP	Water Bottle Wager by Andrew Stadel	What is longer, the height or circumference of a water bottle?
.RP	Similar Shapes, Scale Factor Task (Open Middle)	
.RP	Best Deal Percent Problems	Problem set to use at boards, determining which of 2-3 options are the best deal when making a purchase
	Unit Rates and Proportional Relationships 7.RP	
ures of Center and Variabi	Multiplying two negative numbers	A short task on why multiplying by two negative numbers is positive

ures of Center and Variabi	Which traffic stop is most efficient?	I did this over two days but they could use more time to get their presentation put together. The prompt is that they are on their city council and they have to decide which kind of traffic stop makes the most sense at each of the five locations.
ures of Center and Variabi	Valentine Marbles	Variability among estimates of random samples
ures of Center and Variabi	Mr. Brigg's Class Likes Math	Sample data representative of whole population - yes or no?
ures of Center and Variabi	Simulating a compound event	Design & Use a simulation
ures of Center and Variabi	Compound Events	
ures of Center and Variabi	Counting Trees	A task about sampling
	Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP	
Notes	Additive Inverse	DESMOS Hot Air Balloon: Adapted for Eureka M2L1 and Envisions 1-1
Thinking Task	Additive Inverse	DESMOS Hot Air Balloon: Adapted for Eureka M2L1 and Envisions 1-1
	GeoGebra	Zero-Sum game. The objective of the game is to select three integers whose sum is equal to zero.

	Adding and Subtracting Integer Thin Slicing	These are some problems (based on Pam Harris's work) that lend themselves well to different strategies
	Limbo: An Integer Game	of integers into a 4-by-4 grid so that the sums of the rows and columns is a minimum.
	Shopping Spree	Spending given amounts (adding/subtracting with decimals
	intro to adding and subtracting	This is a video by Kyle Pearce
	Integer Chipboard	Interactive tool to allow students to explore adding & subtracting of integers
	g	Cooking with cubesGood story for students to visualize adding and subtracting
Notes	Integer Sort	Students go through a set of integer statements deciding if they are always, sometimes, or never true and explain/give proof of their conjectures
Thin Slice	Integer Sort	Students go through a set of integer statements deciding if they are always, sometimes, or never true and explain/give proof of their conjectures

Adding Integers with an extension for subtracting integers	All letters of the alphabet are given a value of either positive 1 or negative 1. Students are challenged to find words with the greatest value or least value.
Develop Integer Rules	I had students solve these by drawing a diagram on VNPS. I then had students develop integer rules with their groups.
Exponent Rules	Do a similar prompt for each exponent rule. Model one rule so they know what to expect. Then they do all the others on their own. In between each prompt, go over the rule and discuss.
Multiplying and Dividing Integers	Notes to Future Forgetf
Subtracting Integers	Notes to Future Forgetf
Absolute Value and Adding Integers	Notes to Future Forgetf
Rational Number Imposter Challenge (Converting Fractions to Decimals)	Converting fractions to decimals to find terminating or repeating.
Unusual Calculator	Adding and Subtracting integers
Decomposing 25	Adding and subtracting integers- great introduction and very interactive (sand bags for negatives, balloons for positives)
https://teacherthrive.com/teaching-order-of-operations/	6th grade concept that can be used for review before introducing expressions and equations. This is a hands on activity that does not use a mneumonic device.

	Desmos Hot Air balloon interactive	Adding and subtracting integers- great introduction and very interactive (sand bags for negatives, balloons for positives)
	Subtracting Integers	Make the number 24 from the four numbers shown on the card. They may use any operations.
	Multiplying and Dividing Integers	Task string for multiplyi

	Adding Integers	Task string for adding i
Notes	Temperature Changes	Find missing temperatures - understand positive and negative numbers in context
Thinking Task	Temperature Changes	Find missing temperatures - understand positive and negative numbers in context
	24	Make the number 24 from the four numbers shown on the card. They may use any operations.
	Rational Number Operations 7.NS.A	
	Balancing Scales	
	Genius Blocks	
	Percents Explore Activity	Students were given a set of tables to fill in as a group without the use of calculators, from least challenging to most challenging. The first table has a mistake that students have to identify. The goal was to help them start to notice relationships between the original number, the percent, and the final answer. This was an introduction to writing the percentage as a decimal and multiplying by the decimal number to calculate the percent.

	Absolute Value + Compare/Order Rational Numbers	*sequence of tasks for absolute value and comparing/ordering rational numbers*
	Integer Fluency	Activities to Increase Fluency with Integer Computation
	Other Resources	
7.G	Triangle Inequality	Desmos activity (by Jay Lane) to discover the triangle inequality
7.G	Band Around the Earth	Challenging problem involving a band around the entire Earth
7.G	Full Lesson - Area of circles	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
7.G	Full Lesson - Circumference of circles	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
7.G	Circumference of circles	Thin slicing from conceptual understanding to solving with algebraic equations

7.G	Volume Formulas	First, I will show my students a ream of paper and explain how if I laid all these pieces of paper end to end and calculated the area, that would be the same as calculating the volume, which is why you multiply by the height. Then, each group will be assigned a 3-d shape and using what they know about surface area and the demonstration, they have to come up with a volume formula and test it with sample problems.
7.G	Area of compound shapes	I saw something similar on Pinterest so this is not my own idea. Students will work in their groups to perform "surgery" on compound shapes to find the total area.
7.G	Angle Facts - full lesson	thin slice, cyu, notes (23/24 model),test questions.
7.G	Vertical and Adjacent Angles	Print out one quadrilateral for each VNP and laminate it. Each group will get a ruler, protractor, and the quadrilateral. They will have to extend the lines of the shape to form a transversal of sorts and then use the protractor to measure each angle. The goal is to get them to see that vertical angles are congruent and the four intersecting angles add up to 360.
7.G	Constructing Triangles	Using 3 numbers randomly generated (1-10) can you construct a triangle? What do notice about when you can and cannot construct a triangle?

7.G	Slicing 3D solids	Investigate what results when slicing 3D shapes
	Geometry (Angles, Circles, Scale drawings) 7.G	
	Percent Expressions Thin Slicing	Thin slicing activity to introduce the idea of percent expressions.
	Desmos Twin Puzzles	Students are given two equations without operation signs or groupings and are asked to put operations in to make the equations true.
	Task: Fencing Your Lawn	Students calculate the cost of fencing and laying sod on a lawn. Must calculate perimeter and area and write variable expressions that model the cost of materials.
	Multi-step Equations	Add 'em Up: The groups will will have four problems to solve and the sum of the answers should equal the value in the middle
	Two-Step Equations 2	Directions: Using the digits 1 to 9 at most one time each, fill in the boxes to find the largest (or smallest) possible values for x.
	Distributive Property 4	Directions: Using the digits 0 to 9, at most one time each, to make a true equation. Students fill in the boxes to create a true equation.
	OUR, grade 7, unit 15	Thin slicing to introduce negative variables in inequalities.

Add 'Em Up	Students work in groups of four (but can be modified) and each solve one problem. The sum of their solutions should equal the number in the middle.
Multiplicative and Additive Inverse Thin Slicing	15 problems broken up into three "rounds" on multiplicative and additive inverse as well as "invisible" math
Bill's Fence Problem	This is modified from an activity I found on teachers pay teachers. Feel free to tweak it. Basically students are finding the best deal on a fence and staying under budget.
Woody's Raise	Students create an inequality to find a better deal, equivalent deal & worse deal
Equations Desmos	Thin Slicing: One-step, two-step, distributive property, with rational solutions, 0, and negative solutions--Has feedback on each slide
Solve one variable equations	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
Distributive Property - Full Lesson - update for 23/24	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice

Distributive Property	Thin Slice and Check Your Understanding
Clothesline Math	Students evaluate and match expressions with answers
Pool border problem	Students write different equivalent expressions for the border around a square pool
Pig pen algebra	Students write equations, and recognize patterns
I'm thinking of a number.. what is it?	Students write algebraic equations and solve them
Number Tricks	Write equations and simplify to reveal why number tricks work
	Works with absolute value and zero pairs
	Several level tasks at the end of this packet
Card sorts, and quests	Various card sorts, called quests - found through Open up resources
Simplify and Factor Expressions	Multiple days- students complete thin sliced problems using magnetic algebra tiles at VPNS
Algebraic Equations Problem Sequence	Solving Equations- Thin Slicing
Expressions, Equations, Inequalities [7.EE](#)	
7th Grade Curriculumn Notes	
IM Community Resources	

	algebra	Full 8th Grade curriculum from Alicia Burdress (Alberta, Canada). See correlation to CCSS topics HERE (similar to 7th/8th CCSS)
	Open Middle Digital Activities	I found this link on Twitter, it's the Open Middle 7th Grade Challenges
	Curriculum Map & Tasks	https://docs.google.com/document/d/1KYgtd2q5x2clpDTwtJwpDeAoZw_M_O0R9Au5bkKXHsE/edi
	Notes Packets	Notes Packets including graphing organizers and CYU
	Dr. Austin's Maths	Worksheets that are gr
	The Centre for Education in Mathematics and Computing	The Problem of the Week is designed to provide students with an ongoing opportunity to solve mathematical problems. Each week, problems from various areas of mathematics will be posted here and e-mailed to teachers for use with their students from grades 3 and up.
Full Curriculum	na	Open Up Resources - 7
	Full Curriculum Resources	
	Full Lesson - mean, median, mode, range	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
	Interquartile Range Smudge Math	“Oh no! I prepared notes on how to find IQR but I spilled coffee on them and I can’t remember what they said! Can you figure out what was underneath the coffee smudges?”

Range Tasks	Students use data to create their own definition of range
Exploring Median	Students are given data scaffolded data sets and reason how to find the median in their own words
Exploring Mean	Students are given data scaffolded data sets and reason how to find the mean in their own words
Dot Plots	Interpreting dot plots
Dot Plots	Create a dot plot with the given requirement
Mean, Median	Find data sets that satisfy a given mean & median. Looks good for high students
Mean, Median, Mode	Find data sets that satisfy a given requirement concerning mean, median & mode.
Mean	Given a set of numbers, students chose one to wipeout to create a given mean

	Mean, Median, Mode	Find data sets that satisfy a given requirement concerning mean, median & mode. https://nrich.maths.org/10995
	Matching Mean, Median and Mode	The mean, median, and mode of the five numbers 5, 7, 8, A, B are equal. (The list has a single mode.) Find all possible values of A + B.
	Statistics (dot plots, box plots, histograms, measures of center and variability)	
	Rates full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
	Proportional Thinking (Ratios) full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
	Percents full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
	dime thieves	weight to value ratios of coins
	Turning Green	Equivalent Ratios

Lunchtime Activities	Fractions of a number and percent of a number
Exam Scores	Students use reasoning with percents
Shirt Sale	Students use reasoning with percents
What’s a Fair Living Wage?	Each student gets a card describing a family and has to determine how many hours they'll need to work to afford housing.
Sharing Costs by Mathematics Assessment Project	
Security Cameras by Mathematics Assessment Project	
Fractions/Decimals/Percents	see p.105
12 Cookies from Geri Lorway	How many cookies does everyone get?
Partial Product from Dan Meyer	How much does it cost? p.86 on the PDF
Nana's Chocolate Milk from Dan Meyer	Can the chocolate milk be fixed?
Nana's Paint Mix-Up from Dan Meyer	Is it possible to fix the mix-up?
Rope Jumper from Graham Fletcher	How many times will she jump rope in 30 seconds?

Let It Flow from Graham Fletcher	How long will it take for the bottle to empty?
Fast Clapper from Nathan Kraft	Will he beat the record?
Mullet Ratio from Matt Vaudrey	What is the perfect mullet ratio (business length:party length)? http://mrvaudrey.com/2012/05/03/the-only-lesson-theyll-remember/
Clothesline Math from Kristen Acosta	Use a clothesline to place numbers on a number line. https://kristenacosta.com/clotheslines/
Super Bear from Dan Meyer	How many gummy bears equals one super bear? https://mrmeyer.com/threeacts/superbear/

Ratios, Rates, and Percents	
Downside Up	Find differences between integers (both positive and negative) Describe the magnitude of positive and negative integers using absolute value
Howard County Public School System, The Number System	Some great tasks are linked on this page

Integer War	Use to compare positive/negative numbers; Let students think of the significance of the "new rules".
Unusual Calculator	Adding and subtracting integers
Comparing Fractions on a Number Line from Graham Fletcher, Bowen Kerins, and Kate Nowak	Place the fractions on a number line.
Converting a Fraction to a Decimal by Owen Kaplinsky	Write an equation comparing a fraction and decimal.
Comparing and ordering integers	TPT free activity "Find someone who"... questions could also be used on their own for thin slicing; I would add, "explain how you know your answer is correct" for #1. #2 has two -3, I would make one positive and add a negative to one more number, #4 I would say exactly halfway between...I am changing it to say Point A is on the number line halfway between -9 and 7. Point B is halfway between point A and -7. What is point B?

	Clothesline Math from Kristen Acosta	Use a clothesline to place numbers on a number line.
	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)	
	Converting Fractions to Percent	Online puzzles that encourage students to create equivalent fractions that corespond to common percents
	Adding Fractions - The unusual baker	Saw this on the FB page from someone else. originally an NCTM task?
	Verbalizing Division	Tasks to get students to see the various ways we can understand and read division situations
	Dividing Whole Numbers and Fractions	Tasks to see and verbalize division of fractions and whole numbers
	Decimal Division Tasks	Using PV chart to learn about dividing decimal numbers, connecting to the long division algorithm

adding, subtracting and multiplying fractions thin-slicing review	progressive review of adding, subtracting and multiplying fractions (I printed and sliced the papers to hand groups one chunk at a time); Randomly assign groups Cut out the six Special Ops Tasks for students to take to VNPS one task at a time. Roles for each task are indicated on Task Cards.
Adding and subtracting (and comparing) decimals in context	practice adding and subtracting decimals, starting with money, then moving to more difficult decimals
Bridget's Burgers	A fraction to decimals activity that also practices adding and multiplying with decimals
Special Ops-Order of Operations	Task Cards for six Order of Operations problems. Roles switch for each task.
Order of Operations Thin Slicing Slides	20 basic, same three number, two different operations, with parentheses but no exponents

Order of Operations/ Equivalent Expressions WODB	Each row has 3 equivalent expressions and one that's not. Students figure out which one doesn't belong. Answer key included; Expressions contain factoring, distributive property, exponents but there's no negative numbers, fractions, or variables.
Order of Operations thin slicing	A google form with 15 problems in a thin-slicing format; This link is set to anyone with the link can edit, so that teachers can make a copy of the form for their own selves. Try not to edit the actual copy.
Shopping Spree	Spending given amounts (adding/subtractin g with decimals
Order of Operations	Make the largest number possible by putting the numbers 0 - 9 into boxes in a given expression

Order of Operations with 24	Writing as many numeric expressions as possible (using order of operations) to get 24
Penny A Day	Introduction to exponents and exponential notation
Thin slicing dividing fractions	attached link is for multiplying decimals
Adding and Subtracting Decimals, Thin-Slicing from Nathan Kraft	This uses the same format as seen in Open Middle.
Smallest and Largest from Fawn Nguyen	
Amazing Offer	Which deal is better?
Checkerboard from Rina Zazkis	How many squares?
Route Product from nRich	Which route gives the smallest/greatest product?
Decimal Operations Math Menu from Dave Martin	
Twos to Nines Challenge from Sarah Carter	How many expressions can you create?
5-4-3-2-1 Challenge from Sarah Carter	How many expressions can you create?
Foxy Fives from Fawn Nguyen	Use five numbers to create new expressions.

	Four Fours	Use Four 4's to make the numbers 1-20. Examples: 1 = (4/4)*(4/4), 2 = (4/4)+(4/4), 3 = (4+4+4)/4, 4 = 4 + (4-4)*4
	Operations with Fractions and Decimals, Order of Operations, Exponents	
	Prime Time Game	
		Game with 1-100 chart... Modify rules to have students draw a card from pile (2 to 10, and 1 Ace for 11). Modify to highlight multiples of the number EXCEPT for the number itself. Have students look for patterns. (Sieve of Eratosthenes will be created when all numbers used).
	Writing Equivalent Expressions	Rewrite a number as many different ways as you can as a product of factors. Includes script, task progression, consolidation, check your understanding, and solutions

	Prime Climb Color Chart from Dan Finkel	Ask students for patterns or what they notice/wonder. Good for divisibility, prime numbers, factors and multiples.
	Counting Factors from Nat Banning	How many numbers from 1-100 have 1 factor? 2 factors, 3 factors?
	Factors and Multiples Puzzle from nRich	Explore factors, multiples, prime numbers, square numbers, etc.
	Prime Climb Color Chart from Dan Finkel	Explore factors
	Geared Up from Graham Fletcher	How many times must each wheel turn to make all of the dots line up again?
	Hot Dogs from Robert Kaplinsky	How many hot dog and hot dog bun packages should he buy?
	Tax Man (Tax Collector) from Peter Liljedahl	Can you beat the tax collector? While traditionally thought of as a non-curricular task, I believe this is a good task that helps students recall what factors are.
	Greatest Common Factor, Least Common Multiple	

Volume full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
Surface Area full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
Area full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
Perimeter full lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
Surface area thin sliced	Goes from nets to prisms to pyramids
Volume thin sliced	guides kids from cubes, to volume, to fractional lengths of rectangular prisms to cubes with fractional lengths

Missing Side Length / Solve for Area	Students solve "Area Mazes" by finding missing side lengths or solving for an unknown area. I made a Google Form for kids to practice these, and if you google "area mazes," you can find more at different complexities.
Area of a Triangle	Students connect dots on a grid to create the given area (not all dots need to be utilized)
Area of a Trapezoid	Notice & Wonder to derive 2 versions of the formula.
Area of a Trapezoid	Students use a decomposing strategy to find the area of trapezoids on a grid.
Area of Composite Figures (Intro)	Students explore creating composite figures
Area of Parallelograms	Set up to be used with PearDeck add-on for Google Slides, but could be printed out too
Area of Trapezoids, Triangles, and Rectangles	Contains 3-4 days worth of tasks emphasizing that all area formulas are the average of the length times the maximum height.

Area of triangles and Side Lengths from Open Middle	Use the numbers 2-10 to create three triangles and find the smallest total area of the triangles.
Overflow from Graham Fletcher	How many cubes can be dropped into the box before the water overflows?
Packing Cubes from Graham Fletcher	How many sugar cubes fit inside the box?
Got Cubes from Graham Fletcher	How many cubes will fit in the box?
Area and Perimeter of a Rectangle from Owen Kaplinsky - adapted for decimals	Create a rectangle with an area close to 500 square units and with a perimeter close to 100 units using decimals.
Area and Perimeter of a Rectangle from Owen Kaplinsky	Create a rectangle with an area close to 500 square units and with a perimeter close to 100 units.
Girl Scout Cookies from Dan Meyer	How many girl scout cookies fit in the SUV?
Pop Box Design from Timon Piccini	Design a pop (soda) box.
Candy Cartons from Mathematics Assessment Project	Students will design a candy carton.
File Cabinet from Andrew Stadel	How many post-it notes does it take to cover the file cabinet?
Geometry (area, volume, surface area, nets)	

Combining Like Terms - Full Lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
CYU-Equations with 2 Variables	Check Your Understanding Sample that uses mild, medium and spicy questions
Introduction to Inequalities	Thin Slicing
Addition Equations	Thin Slicing
Introduction to Inequalities	Thin slicing
Writing expressions with exponents and evaluating expressions	Thin slicing; Modified from: https://taylorda01.weebly.com/increasingly-difficult-questions.html?fbclid=IwAR3UzL6YiHG6NUFt4xDOruLtRnrWpwLTN3X5umW_Ej_g6tgCWoG_wWt4g7E
6.EE. 3, 4 Generating and Identifying Equivalent Expressions	Thin Sliced Lesson with Launch, sequence of problems, and CYU (mild, med, spicy)
Combining Like Terms Thin Slicing	Use hamburgers, fries and drinks to learn about basic CLT.

	Writing algebraic expressions in context	Moves students from writing numerical expressions to algebraic ones in a nice progression. Check out the practice problems in the linked lesson plan for check your understanding questions
	Stacking Cups from Al Overwijk	How many cups to make a Mr. O? While this was geared to high school students, I do believe you could tailor this to younger grades.
	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)	
Full Year Resources	Year in Review	
Full Year Resources		Multiple Tasks from different strands
Full Year Resources	Rources from Jo Morgan UK	Ideas and resources for teaching secondary school mathematics
Full Year Resources	Problem-Based Learning Curriculum Map	Grade 6 Tasks from various sites separated into clusters

Full Year Resources	Increasingly Difficult Questions	Multiple grade levels, multiple skills/standards, some examples of thin slicing
Full Year Resources	Curriculum Map & Tasks	Full year of problem-based curriculum tasks from Emergent Math.
	Full Year Resources	
	Order of Operations	Thin-slicing introduction
	Order of Operations	How should the money be split? a task to introduce order of operations
	Order of Operations	Link contains multiple ideas for rich tasks and my thin slicing lessons for subtopics (FYI my district uses enVision so some of this uses those curriculum resources)
	Operations and Thinking (grouping symbols, patterns) 5.OA	
ymbols, patterns) 5.OA		
	Thin Slicing - Multiply fraction and whole number	Word Problems
	Multiply and Divide Fractions - conceptual word problems	Thin slice, cyu, notes (revised for 23/34 changes), and test questions

	Think Slicing LCM	Before teaching fractions, do some GCF & LCM number sense work (helps with simplifying fractions & finding common denominators.)
	Thin Sicing GCF	Before teaching fractions, do some GCF & LCM number sense work (helps with simplifying fractions & finding common denominators.)
	All things fractions	https://fractionslearningpathways.ca/ Thin Slicing set with Meaningful Notes link contains many tasks for everything from unit fractions to operations with fractions
	Dividing Fractions	_
	Multiplying Fractions	Link contains multiple ideas for rich tasks and my thin slicing lessons for subtopics (FYI my district uses enVision so some of this uses those curriculum resources)
	Thin Slicing GCF	Before teaching fractions, do some GCF & LCM number sense work (helps with simplifying fractions & finding common denominators.)
Notes Template	Add & Subtract Fractions	Link contains multiple ideas for rich tasks and my thin slicing lessons for subtopics (FYI my district uses enVision so some of this uses those curriculum resources)

	Add & Subtract Fractions	Link contains multiple ideas for rich tasks and my thin slicing lessons for subtopics (FYI my district uses enVision so some of this uses those curriculum resources)
	The Unusual Baker	Students examine cakes cut into different pieces and determine the size of each piece.
	Thin Slicing - place value	Lesson Plans with whole and decimal place value
	Thin Slicing - Lesson plans that include a couple different examples of it	Lesson Plans for decimals
	Multiply Decimals and Whole Numbers Thin Slice	Students discover ways to multiply with whole numbers and decimals
	Target Practice	Rich task where students use their knowledge of whole number division with 1-digit divisors to get a quotient as close as possible to the target.
	BK Meal Deal 3-Act Task (Lesson Sequence addressing 5.NBT.7)	Link contains a lesson sequence that begins by asking students if buying items separately or with the meal deal is a better buy. This addresses adding and subtracting decimals, but extends into other operations and modeling. Lesson sequence includes **thin slicing**, an IM Task, **3 Reads** (w/verbal launch), and another rich task called Shopping Spree (found here elsewhere).
	Number and Operations in Base Ten 5.NBT.5-7	

	Exponents and Powers of 10 Thin Slice	Students discover how exponents and powers of ten work. https://docs.google.com/document/d/14DVZdr4I79rmI4PTTN8aFDx0LYXm1QdSfP75OKvShHc/edit?usp=sharing
	Decimal Clothesline	
	The Deca Tree	How many leaves are left on the tree? A problem from NRICH
	Number and Operations in Base Ten 5.BNT1-4 Number and Operations in Base Ten 5.NBT1-4	
	Line Plots	Most of this is using our enVision curriculum - sorry! Link contains multiple ideas for rich tasks and my thin slicing lessons for subtopics (FYI my district uses enVision so some of this uses those curriculum resources)
	Volume	
	Measurement & Data 5.MD Geometry 5.G	
	Tracey Bean Year-At-A-Glance BTC (using enVision curriculum)	
	MARS Tasks	Multiple Tasks from different strands
	Curriculum Map & Tasks	Full year of problem-based curriculum tasks from Emergent Math.
	Full Curriculum Resources	
	3 Act Task for Rounding	

	Exploading Dots	Builds visual understanding of the base ten number system and using a place value chart but for some reason this way grabs my 4th graders!! Especially when you get to the division levels!
	Use place-value understanding and properties of operations to perform multi-digit arithmetic. **Understand decimal notation for fractions, and compare decimal fractions.** **Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.** **Represent and interpret data.** **Geometric measurement: understand concepts of angle and measure angles.** **Generate and analyze patterns.**	
	Number Visuals	Students find patterns in the numbers and connect it to multiples and factoring
	Generate and analyze patterns.	
	Comparing Fractions and Equivalent Fractions	Full lesson including notes (revised for 23/34 changes), CYU, thin slice progression (based on IM grade 4 Unit 2 lessons) study guide questions, test questions and retest questions.

	Dividing Shapes - full lesson	This includes the Unusual Baker as the thin slice, but also has notes to future self (revised for 23/34 changes), cyu (mild medium and spicy) and test questions
	The Unusual Baker	Students examine cakes cut into different pieces and determine the size of each piece.
Thin Slice	Mean, Median and Moc	Ontario Standards Alig
Thin Slice	Simplifying Rational Ex	Before giving students t
Full Curriculum	Real Math	Real Math is a YouTub
Thin Slice	Systems Substitution T	Thin slicing that starts v
Thin Slice	Desmos - Thin Slicing I	This is an adapted task
Thin Slice	Quotient of Powers	Using Exponent laws- (
Thin Slice	Powers of Powers thin	Using powers of power
Full Curriculum	Statmedic--https://www	Statmedic has full year
Thin Slice	Area Formula Discover	A thin-sliced discovery
Thinking Task	Open Middle Area	Open Middle problem i
Check Your Understan	Multiplying and Dividing	Multiplying and Dividing
Check Your Understan	Solving Rational Equati	Check Your Understan
Thinking Task	BTC Intro to Integrals II	Covers basic intro to...A
Thin Slice	Exploring the Slope Fo	After students have lea
Thinking Task	Sum and Difference of	This is a thinking task d
Thin Slice	Percentages Thin Slice	Thin Sliced Percentage
Thin Slice	Discovery of Sector Are	After students have lea
Thinking Task	Horizontal Asymptotes	Students will use a Gec
Full Curriculum	Algebra II BTC Curricul	This is the Algebra II cu
Thinking Task	Trig Quiz Design Challe	Students build a trig qu
Thin Slice	Definite integrals and a	A set of tasks to explor
Thin Slice	Introduction to antideriv	Introducing antiderivati
Thin Slice	Related Rates	A set of problems on re
Thin Slice	Implicit differentiation	Students were briefly in
Full Curriculum	Darcy House	Grade 9 - BC Curricul
Full Curriculum	Daily Algebra 1 Tasks	Tasks for each topic of
Lesson with discovery t	Dividing Fractions Less	This is a slide deck of r
A discovery lesson with	Lesson on Converting F	This is a slide deck of r
A discovery task with su	Solving Equations	A slide deck lesson on
Thin Slice	Adding & Subtracting D	Lesson plan based on F
Thin Slice	Multiplying Decimals	Lesson is based on Pet
Thin Slice	Division Algorithm Thin	Division algorithm thin s
Thin Slice	Segment Addition Post	A thin slice activity to bu
Multiplication Story Pro	Number Narratives	Students work in rando

Thin Slice	Solving 1 & 2 step equa	Thin sliced questions th
Thinking Task	Story Board Problem ~	Grade 3, Module 1, Les
Thinking Task	Two-step story board p	Module 1, Lesson 2, Ap
Thin Slice	LCM	30 minute activity about
Thin Slice	Fractions & Mixed Num	30 minute activity going
Thin Slice	Comparing Decimals	20 minute lesson where
Full Unit	Unit 1 Group Tasks: Ex	Here are the group task
Full Unit	Unit 2 Group Tasks: Ex	Here are all of the grou
Thinking Task	Polynomial End Behavi	Polynomial End Behavi
Thin Slice	Equivalent Expressions	In this lesson, students
	Extend understanding of fraction equivalence and ordering. **Draw and identify lines and angles, and classify shapes by properties of their lines and angles.**	
	SPLAT	https://stevewyborney.com/2017/02/splat/?fbclid=IwAR0r6DUJ0ddBaE6XuFM22Q4RXm1XChQ-zcLBJvy-NqyV1brzE6ldeo84qeU
	Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.	
	SeeSaw	Intro to Division great ta
	Krispy Kreme Extreme	2 by 2 digit multiplicatio
	Slim Cans	3 Act Task- Thin slicing embeded in this lesson to build multi digit multiplication
	Shopping Spree	Spending given amounts (adding/subtracting with decimals
	Use the four operations with whole numbers to solve problems.	Full year of problem-based curriculum tasks from Emergent Math.
	NRICH	**https://nrich.maths.or**
	OPEN MIDDLE SLIDES K-HS	

	Curriculum Map & Tasks Teaching Through Problems Worth Solving	Full year of problem-based curriculum tasks from Emergent Math. Full 3rd Grade curriculum from Alicia Burdress (Alberta, Canada). See correlation to CCSS topics HERE. Many problems still great for 4th grade students as well.
	Full Curriculum Resources	
	Counting Collections	Estimation and adding
	Use place-value understanding and properties of operations to perform multi-digit arithmetic. Understand properties of multiplication and the relationship between multiplication and division.	
	SPLAT	https://stevewyborney.com/2017/02/splat/?fbclid=IwAR0r6DUJ0ddBaE6XuFM22Q4RXm1XChQ-zcLBJvy-NqyV1brzE6Ideo84qeU
	Solve problems involving the four operations, and identify and explain patterns in arithmetic. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	

	How many airplane gummies are there?	Beginning multiplicatior
	Represent and solve problems involving multiplication and division. Represent and interpret data.	
	Guess my rule: polygon sort	Students are presented
	Reason with shapes and their attributes.	
	Stone Soup	Students have to multiply to figure out amounts of ingredients for a recipe.
	Multiply and divide within 100.	
	How many Rows? How many in each row?	Develop area concepts
	Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	
	The Unusual Baker	Students examine cakes cut into different pieces and determine the size of each piece.
	Develop understanding of fractions as numbers.	
	Beverely Everett Visualizing Math	**Numeracy Talks, Matl**
	3 Act Tasks	Engaging math storytelling tasks
	Good Questions by Marian Small	This book is full of tasks that could work for BTC
	Marian Small Open Tasks (more)	Open tasks could be modified for BTC tasks

	Marian Small Open Tasks	Open tasks could be modified for BTC tasks
	Math Images	Math images = great tasks
	Math Before Bed Tasks	These tasks cover a wide range of concepts.
	Curriculum Map & Tasks	Full year of problem-based curriculum tasks from Emergent Math.
	Teaching Through Problems Worth Solving	Full 3rd Grade curriculum from Alicia Burdress (Alberta, Canada). See correlation to CCSS topics HERE.
	Full Curriculum Resources	
	SPLAT	https://stevewyborney.com/2017/02/splat/?fbclid=IwAR0r6DUJ0ddBaE6XuFM22Q4RXm1XChQ-zcLBJvy-NqyV1brzE6Ideo84qeU
	Add and subtract within 20.	
	3 Act Tasks	Engaging math storytelling tasks

	Good Questions by Marian Small	This book is full of tasks that could work for BTC
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	Marian Small Open Tasks	Open tasks could be modified for BTC tasks
	Math Images	Math images = great tasks
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	Teaching Through Problems Worth Solving	Full 2nd Grade curriculum from Alicia Burdress (Alberta, Canada). See correlation to CCSS topics HERE.
	Full Curriculum Resources	
	How Can They Be Equal?	Students use logic and attempt to make an equation with numbers 1-9 that will equal the same number.
	The Very Hungry Caterpillar: Place Value (to 99)	How many things did the caterpillar eat?
	Same But Different	3 tens and 1 one....1 ten and 3 ones (base-ten blocks)
	Number Tasks	https://docs.google.com/presentation/d/1H4fUgXBpIRW32GPB30ITEnwugbXK9SeWgBnSyUuL0R0/edit#slide=id.ge6f4cf980f_0_142
	SPLAT	https://stevewyborney.com/2017/02/splat/?fbclid=IwAR0r6DUJ0ddBaE6XuFM22Q4RXm1XChQ-zcLBJvy-NqyV1brzE6ldeo84qeU
	20 Tickets	Find ways to combine numbers to equal 20.

Toy Cars	Students can construct responses based on the understanding of "some" and "two more"
Comparing Points	Students need to use comparison and logic skills to decide how many points each person has based on more/less vocab confines.
Interpreting Data	Make a graph that shows a possible result of 7 students' favorite color.
Shadow Activity	The picture shows some shadows cast by solid (3D) objects as well as some flat (2D) shapes. Describe 3D objects that could have made these shadows.
Draw & Name Shapes	Draw and name a shape that has the following characteristics.
Variety of coin tasks	this is a variety of coin tasks
Do you have enough money?	3 Act Task - You want to buy a toy, but do you have enough money?
Non Standard Units 3 Act Task: Lego Slide	Which box is shortest? Longest? Estimate and say how you know.
Open Number Line	Use the digits 1 to 9, at most one time each, place a digit in each box on the number line to make the number line true.
Find the Pattern!	Find the next three terms of a given number pattern.
Make Ten	How many chikens and pigs COULD BE in the barn if there are ten animals?

	Nature Walk	Students go on a nature walk and find different critters. They must decide how many of each based on the confines of "more" and must = 18.
	Mix of NCT and Curricular	Tasks based on grade level, but not by standard
	Tasks by category	Lots of tasks in a Doc, organized by category
	Tasks by category	Lots of tasks in a Sheet, organized by category
	3 Act Tasks	Engaging math storytelling tasks
	Good Questions by Marian Small	This book is full of tasks that could work for BTC
	Marian Small Open Tasks (more)	Open tasks could be modified for BTC tasks
	Marian Small Open Tasks	Open tasks could be modified for BTC tasks
	Math Images	Math images = great tasks
	Math Before Bed Tasks	These tasks cover a wide range of concepts.
	Teaching Through Problems Worth Solving	Full 2nd Grade curriculum from Alicia Burdress (Alberta, Canada). See correlation to CCSS topics HERE.
	E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: solve word problems using objects and drawings to find sums up to 10 and differences within 10

E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: model the action of joining to represent addition and the action of separating to represent subtraction
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: compose and decompose numbers up to 10 with objects and pictures.
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: identify three-dimensional solids, including cylinders, cones, spheres, and cubes, in the real world;
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: identify two-dimensional shapes, including circles, triangles, rectangles, and squares as special rectangles
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference.
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill:recognize instantly the quantity of a small group of objects in organized and random arrangements;
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures;

SPLAT	https://stevewyborney.com/2017/02/splat/?fbclid=IwAR0r6DUJ0ddBaE6XuFM22Q4RXm1XChQ-zcLBJvy-NqyV1brzE6ldeo84qeU
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: Generate a set using concrete and pictorial models that represents a number that is more than, less than, and equal to a given number up to 20;
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: use data to create real-object graphs
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: collect, sort, and organize data into two or three categories;
E3 (Enrich, Extend, Enhance) Activities	3 different level activities to address skill: create two-dimensional shapes using a variety of materials and drawings.
Tasks Library for K-6	One stop shop for digita
3 Act Tasks	Engaging math storytelling tasks
Good Questions by Marian Small	This book is full of tasks that could work for BTC
Marian Small Open Tasks (more)	Open tasks could be modified for BTC tasks
Marian Small Open Tasks	Open tasks could be modified for BTC tasks
Math Images	Math images = great tasks
Math Before Bed Tasks	These tasks cover a wide range of concepts.

	"Insta-Famous" (Scatterplots & Lines of Best Fit Task)	Task for introducing lines of best fit; has students graph data on a scatterplot, discuss relationships/correlation, estimate a line of best fit and compare to others, and closes using technology to check student estimated lines of best fit
	Measures of Central Tendency	Mean, median, mode, range thinking tasks
	Scatterplot Generator	For Randomly generating scatterplots with lines of best fit
	Scatterplot Unit	This module/unit is being developed for students who have already learned linear functions
	Slow Reveal Graphs	Can be used to show bias interpretation, extrapolation
	Statistics Unit--Navigational Instrument	Navigational Instrument for use with a Statistics Unit
Thin Slice	Positive, Negative, and Zero Exponents	Smudged math/thin slicing
	Postive/Negative bases and exponent of 0	Note making stage 1 - based on Aug 7 zoom call with Peter
	Postive/Negative bases and exponent of 0	CYU - Exponents
	Postive/Negative bases and exponent of 0	Thin Slicing/Smudged Math - Exponents
	Postive/Negative bases and exponent of 0 (FRENCH)	CYU (FRENCH) - Exponents
	Power Exponent Laws	CYU - Power Exponent Laws

Thin Slice	Power to a Power and Product and Quotient to a Power Laws	Smudged math/thin slicing
	Powers and Exponents Navigation Tool	Gr 9 (NS, Canada) - used to track assessment
	Powers of Ten	Thin-slicing - Powers of 10
	Powers of Ten	CYU - Powers of 10
	Exponent Properties thin slicing	Each property has a different set.
	Exponent Rules	Discovering Exponent Rules
	Exponent Rules- thin slicing	These sets of problems are for students to work through and discover the exponent laws. Can also be used to review/revisit.
	Multiplication and Division Laws of Exponents	Thin Slicing/Smudged Math - Mult/Div Exponent Laws
	Multiplication and Division Laws of Exponents	Smudged math/thin slicing
	Multiplication/Division Exponent Laws	Note making stage 1 - based on Aug 7 zoom call with Peter
	Multiplication/Division Exponent Laws	CYU - Mult/Div Exponent Laws
Thin Slice	Graphing in Slope Intercept	This thin slicing activity is done after writing in slope intercept form.
	Graphing in Slope Intercept Form	Thin slicing. Graphing line given equation in slope intercept form. Graphing on VNPS required
Notes	Graphing in Slope Intercept Form	Thin slicing. Graphing line given equation in slope intercept form. Graphing on VNPS required

Thin Slice	Graphing Linear Functions Thin Sliced Task	Thin sliced task leading students through graphing linear functions when given just a slope and y-intercept into graphing in slope-intercept form; ends with the identity function to discuss "invisible 1" slope, 0 as a y-intercept, and how that affects what the linear function equation looks like; suggested use as a Day 2 review task prior to issuing CYU Questions
Notes	Graphing Linear/Non-Linear Relationships https://teacher.desmos.com/activitybuilder/custom/6334b4d480b2b4fabc025643	An activity that draws connections between graph/table/equations, and lets them look at the difference between linear equations and non-linear. They find a relationship between all x and y-values in a table, and have to write an equation to match that description.
	Identifying & Interpreting Key Features of Linear Functions Task	Notes To My Future Forgetful Self Task with scripted intro moving students through graphing points on a coordinate plane to identifying the key features (x- and y-intercepts and slope) generally, then finally pushing students to apply this knowledge to interpreting those key features in real world scenarios
	Identifying Functions	Start class with examples/non examples of functions, then do the "Function Auction"
	Ind/Dep variables - Note	Using summer 2023 template
	Independent vs Dependent Variables	Distinguish between ind/dep variables

	Interpreting Rates of Change Task	Task with scripted intro scenario pushing students to justify and explain their use of self-selected data representations for linear functions; encourages different modes of engagement as students defend their chosen representation to other groups or teacher; students are also asked to identify y-intercepts, calculate rates of change, and interpret both in terms of the given context; extensions include opportunities for students to predict x-intercept and interpret it in context, as well as to determine appropriate domain for a real-world context and make use of the "Creating" mode of engagement
	Intro to Continuous Domain and Range	Slides to transition from discrete (assumed background knowledge) to continuous as intro before thin-slicing
	Introduction to Arithmetic Sequences	Thin slicing. Intro to arithmetic sequences, identifying the common difference
	Linear Equations	A task to find the value of IN-N-OUT burgers with different numbers of patties, create an equation to show the relationship, and graph the relationship. Adapted from Robert Kaplinsky.

Linear Functions Unit	A Google Drive Folder than includes a Google Doc "Linear Equations" and corresponding CYUs. The Google Doc has a series of thin-sliced tasks (with intros) for a unit on linear function that emphasizes using tables to reason from context, modeling functions, including slope, and also non-contextual graphing equations in slope-intercept form. This is a very rough draft and my working document, so it is subject to change.
Linear Functions Unit--Navigational Instrument	Navigational Instrument for use with Linear Functions Unit
Linear/Non-linear - Note	Using summer 2023 template
Function Notation	Introduces f(x)+C and f(ax) notation through thin slicing and some self-checking. Incorporates linear and quadratic functions.
Function vs Non Function thin slicing	Label as function or non-function based on previous Notice and Wonder activity
Functions - Note	Using summer 2023 template
Writing Equation in Slope Intercept	Ss have reviewed slope and discovered where it is located in the equation; same for y-intercept
Writing Linear Equations Task	Task with scripted intro leading students through writing linear equations in slope-intercept form when given a graph, two points (some with y-intercept, some without), and a description of the linear relationship

Thin Slice	Writing Slope Intercept Form	Thin slicing. Writing Slope Intercept Form given two points
	Writing System of Inequalities	Task/ Problem Solving: Customer has limitations on what can be ordered at a restaurant. Students are asked to find the different combinations using a system of inequalities.
	Zeros of a Function	Thin Slices
	Identifyng Key Features of Functions	This activity was originally created as a pixel reveal puzzle. As answers are typed in correctly, the cell turns green and the picture reveals itself. 40 problems broken into 4 teams. Activity can be assigned to whole class, by teams, or individually. A set of Google Slides have also been included with all 40 problems that can be printed and taped to VNPS so students can work together, then type into the Google Sheet to check accuracy.
	Open Middle Problems	Using these for beginning-of-year review of computations and order of operations
	Radical Exponents	Thin slicing problems introduced by building on previous knowledge of square/cube roots and exponent properties

	Identifying and working with sequences of numbers.	This is a google sheets activity where I go through the first three lessons of module 3 in Eureka Algebra 1. It begins with various visual patterns, then builds to just some number sequences. It covers 3-4 class periods. I didn't get a lot of practice problems written...
	Imaginary Numbers (basics), thin slicing	This is a thin slicing document that also includes meaningful notes and check your understanding. All solutions are provided.
	Integer Addition & Subtraction	Thin slicing problems for addition and subtraction of integers. Students match the expressions to the correct answer. Also created a google form for CYU Questions & slide show.
	Integer and Fraction	Thin sliced problems and CYU handouts, for integer operations, multiplying and reducing fractions, and order of operations.
	Rational and Irrational Numbers Card - numbers systems and quantities	This lesson introduces the idea of rational and irrational numbers. You will need to run a copy of the numbers on card stock. Created by Peter Anderson
Thin Slice	Adding and Subtracting Polynomials	Thin slicing
Thin Slice	Adding and Subtracting Polynomials (stage 2)	thin-slicing (for after or continuation of Don newman's sequence)
Notes	Adding and Subtracting Polynomials (stage 3)	Thin slicing

	Classifying Polynomials	Students cut and sort a variety of polynomials with the intention of uncovering classification catagories.
	Classifying Polynomials	Thinking task where students have to create each type of polynomial; I did not create this actvitiy but found on twitter
	Completing the Square	Deriving the process of completing the square via thin slicing
	Completing the Square	Thin slicing problems with irrational solutions
	Converting from Vertex Form to Standard Form	Thin slicing
	Domain & Range Thin-Slicing (VA.SOL.A7)	Thin sliced domain and range... starts with discrete relations and builds up to continuous
	Exponential Functions Unit--Navigational Instrument	Navigational Instrument for use with Exponential Functions Unit
	Exponential Growth	Guess my Number—mash up from BTC + Big Ideas Math
	Factor Special Cases	Thin slicing
	Factor when a >1 by grouping, Factor four terms by grouping	Thin slicing/smudged math
	Factoring (GCF)	Thin Slicing/Smudge Math
	Factoring (Trinomials a>1) Guess and Check	Thin Slicing/Smudge Math
Thin Slice	Factoring ax^2+bx+c by Factoring Out GCF	Thin slicing
	Factoring by Grouping · Polynomials with 4 terms	Thin Slicing.
	Factoring Difference of Squares	Thin Slicing/smudge math
Thin Slice	Factoring GCF Out of a Polynomial	Thin slicing

	Factoring Introduction	A set of thinking questions / thin slicing building on kid's knowledge of partial products.
Thin Slice	Factoring quadratic trinomials when a >1, factor by grouping	Thin Slicing/Smudged Math
	Factoring Trinomials	Thin Slicing from p. 151 in the BTC book. Includes TS slides, notes, earlier fiinishers task, and exit slip.
	Factoring Trinomials a=1	Thin Slicing/Smudge Math
	Factoring trinomials when a =1	Thin slicing
	Factoring Trinomials when a≠1 using the Slide and Divide Method	Thin Slicing
Thin Slice	Factoring x^2+bx+c	Thin slicing
Thin Slice	graphing quadratics	Thin Slicing/Graphing (assumes knowledge of graphing a function by creating a data table)
	Intro to quadratics: Solving from the graph, solving by factoring, number of solutions	Desmos activity (Thin-sliced ish)
Thinking Task	Introduction to Polynomials	Students discover polynomials can be organized and named by the degree and number of terms
	Introduction to simplification of algebraic expressions	Thin slicing
	Lucky Penny - Exponential Growth	Comparison of different ways to get paid involving exponential growth
	Multiplying Monomial by Polynomial	thin-slicing starting from 3 times a quadratic trinomial
	Multiplying Polynomials	Smudged math using cards for students to work through. Script included in separate file (two files total-cards and script)

Thin Slice	Multiplying Polynomials	Thin slicing. Intro is a review of distributive property and multiplication law of exponents
Notes	Multiplying Polynomials (stage 3)	Thin slicing. Intro is a review of distributive property and multiplication law of exponents
	Multiplying Polynomials	Thin slicing after intro with table method using 15*18 compared to (x+5)(x+8) then compare with distributive method to table method
Thinking Task	Naming Polynomials	Students are given 20 polynomials and asked to sort them. They discover they can be grouped by highest exponent (degree) and number of terms
	Newspaper Math - Intro to Exponential Growth	Activity to get students interested in exponential growth
	Polynomial Vocabulary and Adding & Subtracting Polynomials	
	Polynomials Navigation Tool	Gr 9 (NS, Canada) - used to track assessment
	Polynomials: Represent perimeter and area of rectangles creating polynomials.	Leveled Questions: Mild, Medium, Spicy, Diablo (includes subtracting polyno,ial practice)
	Polynomials Unit-- Navigational Instrument	Navigational Instrument for use with Polynomials Unit
	Cycling Squares	Knowledge of perfect squares
	Quadratics Unit-- Navigational Instrument	Navigational Instrument for use with Quadratics Unit
Thin Slice	Simplifying Radical Expressions	Thin slicing
	Solve by Factoring Solve by Square Root Principle/Completing the square	Thin Slicing/Smudge Math

	Solve Quadratics with the Quadratic Formula	Thin Slices. Assumes knowledge of standard form of a quadratic.
Thin Slice	Solving Quadratic Equations by Factoring	Thin slicing
Notes	Solving Quadratic Equations by Factoring (stage 4)	Thin slicing
	Solving Quadratic Equations by Using Square Roots	Thin slicing
	Solving quadratic equations--developing the quadratic formula	Four days of thin slicing that start with simple x^2 = a number through completing the square until students finally derive the quadratic formula on their own
	Solving Quadratics Algebraically Thin Sliced Lesson	Lesson builds on previous knowledge of solving multi-step equations to guide students to solving quadratics algebraically
	Solving Quadratics by Factoring Discovery Task	Task for introducing solving quadratics by factoring; builds on previous knowledge of factoring polynomial expressions and has students move to finding zeros using zero product rule; task featured is an open-ended scenario, having students use the information they gather by solving the quadratic equation to inform a decision about which option is best in the given scenario; encourages students to use math to problem-solve, as well as defend their reasoning
Thin Slice	Standard Form of Quadratic Functions	Thin Slicing/Graphing
	Task: Trouble with Tribbles	Writing and graphing Exponential Growth and Decay Functions

	The Quadratic Formula	Derive the quadratic formula by completing the square on the standard form
	The Quadratic Formula	Thin sliced problems
Thin Slice	Vertex Form of a Quadratic Funtion	Thin Slicing/Graphing (assumes knowledge of translation of functions)
	Vertex Form Quadratics (Snatch It Match It)	CYU to match Vertex Form Graphs with Equations nstructions: https://docs.google.com/document/d/14cb0GyRUR3XckFAmOS0tTybyN8GNg1mKiFRVZAzM4Qw/edit?usp=sharing
Thin Slice	Vertical Motion (word problems)	Thin slicing
	Arithmetic Sequences - Recursive Formula	Thin slicing
	Arithmetic Sequences - Explicit Formula	Thin slicing
	Introduction to Arithmetic Sequences	Thin slicing. Intro to arithmetic sequences, identifying the common difference
	Arithmetic Sequences - Converting between Recursive and Explicit Formulas	Thin slicing
	Arithmetic Sequences - Converting between Recursive and Explicit Formulas	Thin slicing
	Arithmetic Sequences - Explicit Formula	Thin slicing
	Arithmetic Sequences - Recursive Formula	Thin slicing

One and two step equations	Works through (1) one step equations with natural numbers, (2) two step equations with natural numbers, (3) one-step equations with natural numbers where the solution is negative, (4) both one and two step equations where the answer is positive but there is a negative in the question, (5) both one and two step equations where there are negatives in the question and solution
One and two step equations	Guess my Number—mash up from BTC + Big Ideas Math
Open Middle Problems	Using these for beginning-of-year review of computations and order of operations
Order of Operations	Note making stage 1 - based on Aug 7 zoom call with Peter
Pentaminos to solving equations	Use pentaminos or cutouts included to start algebra students on a path to solve equations through pattern finding.
Solving Absolute Value Equations	Thin-slicing.
Solving Equations (One, Two, Multi + Absolute Value)	Thin Slicing board work, Assessment Guide
Solving Equations Unit Notes (one-step through absolute-value)	Meaningful Notes with learning targets, examples, and CYU. Must download as Word Doc to format correctly
Solving equations with variables on both sides	could be solved by guessing and checking or algebraically
Solving Inequalities (add/sub)	Thin Slicing
Solving Inequalities (mult/divide)	Thin Slicing

Thin Slice	Two step and Multi-step Inequalities	Thin slicing. Assumes prior knowledge of solving multi-step equations and one step inequalities
	Two-Step and Multi-Step Inequalities	Thin slicing. Assumes prior knowledge of solving multi-step equations and one step inequalities
Thin Slice	Two-Step Equations	Thin slicing
Full Lesson	Two-Step Equations	Thin Slicing
	Two-Step Equations	Thin slicing
	Two-Step Inequalities and Interval Notation	Thin Slicing and Investigation/Notes
	Variables on both Sides (one sol)	Start with class discussion on solving 3d = 2d - 25; note the last slide has an inf. many sol
	Writing Equations with variables on both sides - context	Real-world task for solving an equation with variables on both sides, includes check-list for strategies and question stems.
	Equations Splat	A review of multi-step equations; variables on one side.
	Equations with Variables on Both Sides: Types of Solutions	Mult-step equations with solutions that are either one solution, no solution and all real numbers. It is assumed that students already know how to solve multi-step equations. The focus is the three various solutions.
	Intepret & Write Inequalities Warm-Up	Warm-Up questions to review inequaliy symbols and solutions to inequalities
	Linear Equations/Inequalities Navigation Tool	Gr 9 (NS, Canada) - used to track assessment

Multi-Step Equations	Thin slicing
Multi-Step Equations	Splat
Multi-Step Equations	CYU self-checking Google Form
Multi-Step Equations	Thin slicing
Multi-Step Inequalities	https://drive.google.com/drive/folders/18zxq5XuyOO-ZtwQTvxnZZ7TXidszbgAg?usp=sharing
NTMFFS - Unit 1 (Solving Linear Equations/Inequalities)	Notes To My Future Forgetful Self
Solve Systems by Graphing	Thin slicing Task
Systems RW problem	Task
NTMFFS - Unit 5 (Systems of Equations/Inequalities)	Notes To My Future Forgetful Self
Solve Systems using Substitution	Thin Sliced activity
https://docs.google.com/presentation/d/1GUX1k9ZnXmB7Y-BJiSADkPVRCDsb0cyIPZHm5LvbbCg/copy	Thin slicing
Solving Systems with Manipulatives	Task- students are introduced to solving systems
Systems Intro Venn Diagram	Students complete a Venn Diagram in Google Slides with points that are solutions to two different equations. There is one point that is a solution to both. Students graph these in different colors and see that the point that fits both is the intersection.

Solving systems using elimination	Thin Slicing, requires graphing on VNPS
Solving systems using elimination	Thin Slicing Problems
Solving systems using substitution	Differentiated practice; students can select two equations from a list to create a system. Linear equations are presented in all forms.
Solve Systems using Substitution	Thinly sliced problems to introduce solving systems of linear equations using substitution
Solve Systems of Equations by Elimination	Task-for students VNPS
Ostrich, Llama Count	Low floor high ceiling Problem solving task, solved with systems
Reasoning with systems of equations	Determine if a dollar bill does or doesn't belong in the box
Solving systems of equations/inequalities optimization	Performance task/ can be modified to pose for students working at VNPS
introducing solving systems	Coin counting 3 act task
Solving Systems of Equations by Graphing	Thin slicing, requires graphing on VNPS
Solving Systems of Equations by Substitution	Thin slicing
Solving Systems of Equations by Elimination	Thin slicing
Graphing Linear Inequalities in Two Variables	Thin slicing, requires graphing on VNPS
Solving Systems of Inequalities	Thin slicing, requires graphing on VNPS
Systems of Equations Unit--Navigational Instrument	Navigational Instrument for use with Systems of Equations Unit

	Solving Systems of Equations -- Graphing Method Discovery Thin Sliced Task	Thin Sliced Task introducing the concept of solving systems of equations using the graphing method; uses horizontal & vertical lines and standard form of a linear equation (extension includes questions written in point-slope form); includes one solution, no solution, and infinitely many solution answer types; suggested use as an introduction to graphing linear systems after coming off of graphing in slope-intercept form (bridging students' prior knowledge of graphing in slope-intercept form to graphing linear systems)
	Solving Systems of Equations -- Substitution/Eliminatio n Methods Thin Sliced Task	Thin Sliced Task introducing the concept of solving systems of equations using the substitution & elimination methods; includes one solution, no solution, and infinitely many solution answer types; suggested use as an introduction to substitution/elimination method of solving linear systems after coming off of graphing graphing method
	Tasks for Systems of Equations and Inequalities	First task is about Dwight choosing a Paper Salesman Job, require writing and comparing two equations. Other tasks involve writing and graphing systems of linear inequalities (contexts are buying food for cookout and modelling target heart range)

	Snatch It Match It Systems of Equations	Good activity for a CYU INSTRUCTIONS: https://docs.google.com/document/d/14cb0GyRUR3XckFAmOS0tTybyN8GNg1mKiFRVZAzM4Qw/edit?usp=sharing
	:Literal Equations, from 1-step	Thin Sliced, from combining like terms and 1-step equations, through rearranging equations/formulas with only variables. Touches on rearranging from standard form to slope-intercept form.
	Add and Subtract Radicals (Square Roots only)	Intro, Thin Slices, Consolidation
	Add, Subtract, and Multiply with Exponents	Intro, Thin Slices, Consolidation
	Combine Like Terms Intro	Order Up! 3 Act Task by John Orr hoo
	Combine Like Terms Review	A review of combining like terms with rational numbers and also review perimeter of polygons and distributive property
	Compound Inequalities OR Statements	Board Work, Meaningful Notes, CYU, Answers provided
	Compound Inequalities AND Statements	Board Work, Meaningful Notes, CYU, a couple tasks. Answers provided
	Consecutive Integers	
	Distributive Property Intro Thin Slicing	teacher created
Multistep Equation String	Multistep Equation String	Multistep Equation String
	Multiply and Divide Radicals	Intro, Thin Slices, Consolidation
	Interval Notation (Inequalities)	CYUs/Practice
	https://docs.google.com/presentation/d/1PzOtfp85z_cXtNapmaerWCwj6tbkkFfY90gnCybk4sA/edit#slide=id.p	Literal Equations Board TASKS - Thin Slicing with comparison to equations with 1 variable

	Literal Equations CYU	Self-Checking Google Form (same problems as the board problems)
	Literal Equations Full Lesson	thin slices, cyu, notes (new 23/24 revision), test questions, study questions and extra practice
Notes	NTMFFS - Unit 2 (Relations/Functions/Arithmetic Sequences)	Notes To My Future Forgetful Self
Notes	NTMFFS - Unit 3 (Linear Equations/Functions)	Notes To My Future Forgetful Self
Notes	NTMFFS - Unit 6 (Exponents/Exponential Functions)	Notes To My Future Forgetful Self
Notes	NTMFFS - Unit 7 (Ops on Polynomials/Factoring)	Notes To My Future Forgetful Self
Notes	NTMFFS - Unit 8 (Solving Quadratic Equations)	Notes To My Future Forgetful Self
Notes	NTMFFS - Unit 9 (Radicals)	Notes To My Future Forgetful Self
	Parallel & Perpendicular lines	Thin slicing parallel and perpendicular lines from a table
	Parallel and Perpendicular Lines	Thin slicing. Writing Slope Intercept From given a point and given either a parallel or perpendicular line
	Point Slope Form	Thin slicing. Writing point slope from from a point and slope and fro two points
	Point slope, slope intercept and standard form	Exploration based problems to do on paper or to pose for students at VNPS
	Rates of Change Discovery Task	A string of equations that begins with basic one-step equations and concludes with multi-step equations.
	Rates of Change Thin Sliced Review Task	Short thin sliced task designed to review finding rates of change when given a table; suggested use as a Day 2 task prior to issuing CYU Questions

	Representations of Linear Functions	A self checking desmos activity draws connections between graphs/tables/equations of linear functions
	Simplify Imperfect Square Roots	Intro, Thin Slices, Consolidation CYU Simplifying Expressions
	Simplifying Expressions	Formative Assessment
	Simplifying Imperfect Cube Roots	Intro, Thin Slices, Consolidation
	Standard Form Standard to Slope Intercept	Thin slicing. Graphing in standard form and converting from standard form to slope intercept form. Graphing on VNPS required
Whole curriculum	Teaching Through Problems Worth Solving	Full 8th Grade curriculum from Alicia Burdess (Alberta, Canada). See correlation to CCSS topics HERE (many tasks could be used for 9th grade).
	Translating Equations and Verbal Sentences	Board Work, Meaningful Notes, CYU
	Translating Equations and Verbal Sentences	Eight algebraic statements the students have to translate to numeric expression based on shopping. Extention activity included
	Points, Lines, Planes, Angles vocab and notation	Few activities to introduce basic vocab, notation, interpreting and creating sketches based on descritptions of elements

	Angle measurements with protractors, interior angles of polygons, and angle puzzles.	There was a post that asked about how to introduce angles, using protractors, and angle addition. I suggested using painters tape on a table to do all the above activities. After some thinking about BTC here's what I posted:
	Points, Lines, Planes, Angles, sorting	Before introducing any terms, have the students sort them into categories in their groups. Have them determine a definition for each group. As a class discuss the groups, introduce the terms, and talk about defined vs undefined terms.
	Constructions	Good progression of constructions, many of which students need to figure out

Introducing Definitions	Having kids build their own definitions in the first few days.
Segment Addition Postulate	Practice measuring length on a coordinate plane, then a task to find length of segments using a scale drawing
Distance Formula / Midpoint Formula	Determine the closest pizza delivery location
Segment/Angle Addition Postulates	After discovering these postulates on Geogebra in the previous lesson, groups start with the first problem in the slicing after reviewing definitions of midpoint, bisect, and interior.

	Partioning of a segment	This slicing worksheet that uses slope to find midpoint and to partion a segment.
	Points, lines, planes vocab, segment&angle addition	Full unit on tools of Geometry
	Points, Lines, planes drawing Partner Activity	A partner drawing activity to practice the vocabulary of points, lines and planes.
	Tasks for segment proofs (segment addition, midpoint, and geometric proofs)	Thin sliced tasks given in sequential order. Needs CYU (mild, medium, spicy) and scaffolded notes to forgetful self.
	Midpoint,Distance, Partitioning, Parallel and Perpendicular lines	Thin sliced lessons for VNPS, notes, CYU worksheets, study guides, and tests.
	Tasks for Angle Proofs and Finding missing angle measures	Thin sliced lessons for VNPS, notes, CYU worksheets, study guides, and tests.
	Intro Unit: Points, Lines, Planes; Segment Addition; Midpoints; Distance Formula; Angle Addition; Special Angle Pairs	Slides starting from day 1 with teacher notes, some external links. Loosely follows Big Ideas Math curriculum.
	Algebraic proofs -cut and paste	Great introduction to proofs using algebraic proofs and cut and paste. The pieces allow a student to move around the statements and reasons before pasting.
	Inductive Reasoning	Extending patterns, making conjectures, finding counterexamples, making predictions - Hoping to add meaninful notes soon
	Biconditionals - meaningful notes	

	Intro to Geom Proof	This is after proving Uno proofs and algebraic proofs. Students have also been given theormes, definitions, and properties to study
	Conditional Statements Intro Activity	Ss build conditional, converse, inverse, and contrapositive and determine truth values, look for patterns in the work BEFORE learning the names of the statements.
	Intro to segment and angle proofs	This follows BJU 2.6-2.8; Using definitions as reasons in proofs, adjacent angle sum theorem, adjacent angle portion theorem, linear pair theorem, vertical angle theorem
	Equations of Parallel and Perpendicular Lines	Desmos Activity
	Parallel and Perpendicular Lines cut by a transversal	post it note thin slicing
	Parallel Lines cut by a transversal/angle relationship proof peer review	Using VPNS to collaborate, give feedback via peer review and then reflect and alter if needed
	Parallel Lines cut by a transversal/Angle pair relationships/ Auxiliary Lines/And Triangle Sum Theorem	Thin sliced lessons for VNPS, notes, CYU worksheets, study guides, and tests.
	Parallel Lines cut by a transversal - Full Lesson	thin slice progression, notes (23/24 style), CYU, test and study guide questions
	Are triangle congruent?	Illustratitive Math gives great investigative tasks to look if triangles are congruent.

	Equidistance Theorems	Thinking task to investigate and prove through Congruent Triangles
	Congruent Triangles and Congruents figures.	Thin sliced lessons for
	Interior/Exterior Triangle Angles	https://docs.google.com/presentation/d/1u7s76iXv587dTRa13Yt0omF4hXrbDr7qvDupTJS_3As/copy
	Points of Concurrency (centroid)	art-based activity discovering properties of a centroid
	Triangle midsegment and bisectors. Triangle Inequality Thoerem.	Thin sliced lessons for
	Interior/Exterior Angles of Polygons	This topic was introduced using Geogebra; Ss created different polygons starting with triangles to pentagons then using the features of Geogebra measured the interior angles. Ss recorded the sums in a table and developed the rule by looking at the patterns.
	Full lesson - angles in triangles and quadrilaterals	Thin slice progression, notes (23/24 version) CYU, test and studyguide questions.
	Rotations on Coordinate Grid	Uses the same grid to gradually shift center of rotation away from a set point. Students had a hiccup the moment the center moved off the shape but it's quickly worked through.

	All things coordinate geometry	Thin sliced lessons for
	Point and Line Symmetry	Students form words with capital letters. They receive points based on the point and line symmetry of each letter.
	Cry Me a River, Build Me a Bridge, and Get Over It	Uses similar triangles to determine the width of a river and height of nearby trees to determine which tree to chop down to use to cross the river.
	Shadows & Mirrors	Uses shadows and mirrors to determine the height of people and objects that cannot be easily measured.
	Similarity	Thin sliced lessons for
	Intro to Trig Ratios	Geogebra and group work for board; could be adapted for use with protractor and ruler instead of geogebra
	Intro to Trig Equations	Thin sliced (day 2 from above)
	Intro to Inverse Trig	Thin sliced (day 3 from above and adapted from Stefanie's below)
	Intro to Trig Ratios	Thin sliced lesson with script.
	Intro to Trig Equations	Thin sliced lesson with script
	Applications of Trig Ratios using Angle of Elevation and Depression	Thin sliced lesson with script
	Intro to Inverse Trig Equations	Thin sliced lesson with script
	Intro to trigo ratios	Semi Thin sliced lesson 9generalisation)
	Pythagorean Theorem Converse Noodle Doodle	Students make triangles to develop PT Converse Theorem

	Pythagorean Theorem Converse - Sets of Consecutive Whole Numbers	After learning the converse theorem, students identify all possible sets of consecutive whole numbers that can form non-acute triangles.
	Deriving distance formula from Pythagorean Theorem	Thin slicing
	45-45-90 and 30-60-90	Thin slice discovery of patterns
	30-60-90	Thin Sliced problems for board
	All things Trig	Thin sliced lessons for
	45-45-90	Thin Sliced Problems for board
	Special Right Triangles	Students discover special right triangles values through a pattern detecting activity.
	Unusual cake baker	Page 154 in the book.
	Day 1: rectangle, triangle, parallelogram	Discovery starting with the area of a rectangle
	Day 2: trapezoid	Cut out activity in groups!
	Day 3: rhombus/kites	
	Day 4: circle	
	Day 5: sectors	Practice problems. Could be used in groups at boards or individually
	Day 6: composite figures	I used a TPT stations activity for this!

	Cones	Credit: I Speak Math
	3D Prisms	Credit: I Speak Math
	Circuit Practice	Requires knowledge of all the formulas
	Analyzing a bike rim in 5 days	Al Overwijk wrote "This is my attempt at creating an exploratory activity 1) to discover and understand radians, 2) to develop the relationship between arclength, radius and the angle measure in radians 3) to understand angular velocity and 4) to develop an understanding of the relationship between the angle rotated and the height of a point on the bicycle rim."
	Intro to Circles Vocabulary	Thin sliced lesson with script. The link will take you to a folder that includes the Vocab match.
	Angles in Circles Exploration (Day 2)	This is indepndent with Geogebra, but could be reworked into a group activity at the boards.
	Arcs and Chords (Day 3)	Discovering/proving many of the related theorems!
	Tangents (Day 4)	

	Inscribed and Circumscribed Polygons (Day 5)	Combines everything together (all of the theorems/rules they learned) to practice
	Equations of circle Exploration (Day 6)	
	Circles & Completing the Square (Day 7)	Review of factoring and solve by square root, developing completing the square, application to rewriting circles in standard form
	Circles & Completing the Square	Thin slice to solidify how to make a perfect square trinomial and then use that skill to identify the center and radius of a circle
	Circumference and area rounded BTC	
	Thin slice	Free TPT slides!
	Circles	Thin sliced lessons for VNPS, notes, CYU worksheets, study guides, and tests.
	Exponential and Logarithmic Functions	
	Learning Progression	Thin slicing with exponential and logarithmic equations
	Exponential Growth - doubling periods	Task developing formula - Water Hyacinth first, then Covid-19

Task: Trouble with Tribbles	Writing and graphing Exponential Growth and Decay Functions
Key Features of Exponential Functions	Thin slicing
Compound Interest and the Natural Base	Thin slicing/derivation of the natural base, e
Introduction to Logarithms	Thin slicing
Graphing Logarithmic Functions	Thin slicing
Inverses of Exponential and Logarithmic Functions	Thin slicing
Properties of Logarithms	Thin slicing/Smuidged Math
Exponential and Logarithmic Equations	Thin slicing
Exponent Rules AND Solving Exponenital equations with same base	Thin slicing
Simplifying Exponential & Logarithmic Expressions	thin slicing
Exponent Properties	Thin Slicing
Exponent Properties	CYU
Discovers exponents la	Thin slicing
Intro to Exponent Prope	Thin Slicing and Check Your Understanding
Intro to Rational Expon	Thin Slicing and Check Your Understanding
nth Roots, Radicals, an	Thin slicing
Simplifying Radical Exp	Thin Slicing and Check Your Understanding

Properties of Radicals and Rational Exponents	Thin slicing
Adding and Subtracting Radicals	Thin Slicing
Adding, Subtracting, Multiplying and dividing Radical Expressions	Thin slicing and Check Your Undertanding
Adding, Subtracting, Multiplying, and Dividing Radical Expressions	Thin slicing
Intro to Radicals and operations with radicals (just using square roots)	Thin slicing
Graphs of Radical Functions	Thin Slicing and Check Your Understanding
Graphing Radical Functions	Thin slicing
Solving Radical Equations with One Radical	Thin slicing
g	Thin slicing
Inverse Relations and Functions	Thin slicing
Inverse Functions and Restricting the Domain	Thin slicing
Simplifying Radical Expressions & Rational Exponents	thin slicing
Key Features of Functions	
domain & range thin slicing	Students are given a domain and range and need to draw a function that fulfills the restrictions.

Thin Slicing/Smudged Math - domain/range, x & y intercepts, positive/negative intervals, increasing/decreasing intervals	
Slope and Rate of Chai	Thin-slicing
Linear Inverses	thin slicing
Increasing, Decreasing, Constant Intervals, Local Max, Local Min, Domain and Range	Thin slicing
Domain, Range, Shifts	Thin slicing
Domain, Range, Shifts	CYU self-grading
Domain, Range, Shifts, End Behavior, Intercepts	Think slicing
Domain, Range, Shifts, End Behavior, Intercepts	CYU self-grading
Key Features of Various Functions in Various Forms	Thin slicing
Key Features of Various Functions in Various Forms	CYU self-grading
Key Features of Linear, Absolute Value, Exponential, Quadratic	Thin slicing
Key Features of Radical, Polynomial, Rational, Logarithmic	Thin slicing
Key Features of Functions Puzzle Reveal	CYU self-grading
Key Features of Functions Puzzle Reveal	CYU self-grading
Key Features of Functions Puzzle Reveal	CYU self-grading
Key Features of Functions Puzzle Reveal	CYU self-grading
Linear Functions and Systems	
Solving Systems of 3 Linear Equations with 3 Variables	Thin slicing
Solving systems of 3x3s	Thin slicing
Solving Systems of Equations (2x2)	Thin slicing

Solving Systems of Equations (3x3)	Thin-slicing
Water jug task	Desmos Activity
Polynomial Functions	
Introduction to Polynomials	Thin slicing
Adding/Subtracting/Multiplying Polynomials	Thin slicing
Polynomial Identities	Thin slicing
The Binomial Theorm	Thin slicing
Polynomial Long Division	Thin slicing
Synthetic Division	Thin slicing/smudged math
Graphing Polynomial Functions	Thin slicing
Rules for Graphing Polynomial Functions / End Behavior	Thin slicing
Findng Real and Complex Zeros	Thin slicing
Cubic Application	USPS maximize volume with dimension restrictions task
Remainder and Factor Theorems	Thin Slicing
Roots and Zeros	Thin Slicing? Probably not.
End Behavior & Odd or Even degree of functions	Discovery - thin slicing & summary note sheet
Factoring	thin slicing
Polynomial on my Back	students get a mystery polynomial on their back (tap or paperclip) and have to sketch their mystery graph by asking questions
Quadratic Functions and Equations	
Tranforming Parabolas- Will it Hit the Hoop? and Sliders	Desmos Activity Builder: "Will it hit the hoop?" Desmos Graphing Calc with sliders

Vertex Form	Thin slicing, assumes knowledge of transformations
Standard Form	Thin slicing, assumes knowledge of vertex form
Review of factoring ax^2+bx+c, a>1	Thin slicing/smudged math for factoring quadratics by grouping
Factored Form/Solving by Factoring	Thin slicing
Positive/Negative Intervals of Quadratics	Thin slicing
Introduction to Complex Numbers	Thin slicing
Adding/Subtracting Complex Numbers	Thin slicing
Multiplying/Dividing Complex Numbers	Thin slicing
Completing the Square	Thin slicing
The Quadratic Formula	Thin slicing, derive the quadratic formula by completing the square on the standard form
The Discriminant	Thin slicing
Quadratic Application Problems	Application - max/min, zeros, etc
Complex Numbers	Thin-slicing
Vertex Form Quadratics (Snatch It Match It)	CYU to match Vertex Form Graphs with Equations INSTRUCTIONS: https://docs.google.com/document/d/14cb0GyRUR3XckFAmOS0tTybyN8GNg1mKiFRVZAzM4Qw/edit?usp=sharing
Factoring	thin slicing
Function Notation	Introduces f(x)+C and f(ax) notation through thin slicing and some self-checking. Does not combine operations. Incorporates linear and quadratic functions.
Rational Functions	

Get Real! Be Rational!	Thin slicing that leads to simplifying rationals in standard form.
Inverse Variation and the Reciprocal Function	Thin slicing (including graphing)
Graphing Rational Functions by Translating the Reciprocal Function	Thin slicing (including graphing)
Snatch It Match It Graphing Rational Functions using Translations	Good activity for a CYU INSTRUCTIONS: https://docs.google.com/document/d/14cb0GyRUR3XckFAmOS0tTybyN8GNg1mKiFRVZAzM4Qw/edit?usp=sharing
Vertical and Horizontal Asymptotes and Graphing Rational Functions	Thin slicing (including graphing)
Simplfying and Multiplying Rational Expressions	Thin slicing
Dividing Rational Expressions	Thin slicing
Adding and Subtracting Rational Expressions	Thin slicing

	Simplifying Complex Fractions	Thin slicing
	Solving Rational Equations	Thin slicing
	Sequences and Series	
	Sigma Notation	Introduction / Thin Slicing
	Solving Equations & Inequalities	
	Solving Absolute Value Equations	Thin-slicing
	Solving Equations (various types)	Small groups of thin slicing problems- absolute value, simple rational (fraction busters), quadratic, square root, systems w/ substitution.
	Solving Linear Equations	Thin-slicing
	Solving Inequalities	https://docs.google.com/presentation/d/125y182-EqffJVmOBSB4rrlmKzBONILXddsT7wRVB1Ug/edit?usp=drivesdk
	Sequence (various types)	
	Solving Equations and Inequalities by Graphing	Thin slicing, requires graphing on VNPS
	Solving Linear Inequalities	Thin-slicing
	Writing Linear Equation	Thin-slicing
	Graphing Linear Inequa	Thin-slicing
	Statistics (Normal curves / z-score)	
	Introduction	Thin Slicing
	Introduction	Thin Slicing
	Transformation of Functions	

	Transforming Parent Functions	Students graph parent functions and then predict (sketch) what transformed functions will look like. Graphic Organizer
	Graphing Translations of Functions	Thin slicing, requires graphing on VNPS
	Transformation of Functions	Thin-slicing, requires graphing on VNPS
	Transformation of Functions - Dilations	Thin-Slicing, requires graphing on VNPS
	What's My Transformation (on my back)?	Students get a transformed graph of a new function (cubic, sq root, rational, abs value) on their back and have to ask yes/no questions about it in order to write the equation of their function.
	Transformations of Functions via Desmos activity	Thin slicing
	Linear & Quadratic Transformations (+Coding Alterations?) Game in Scratch	Math Game - Guide Spiderman to the target on the opposite building by transforming Linear and Quadratic Equations. Avoid the vilains!
	Trigonometric Functions	
	Unit Circle	Developing Unit Circle Degrees and Radians

Unit Circle and Trig Functions	Free lessons from Math Medic that work really well with BTC.
Basic Trig Ratios	Derive the trig ratios
Using Trig to Solve Right Triangles	Thin slicing
Special Right Triangles	Thin slicing
The Unit Circle	Thin slicing
Degrees and Radians	Thin slicing
intro to the unit circle	Thin slicing
Writing trig functions from a graph	Thin slicing (after previously establishing background knowledge of sine and cosine parent functions and transformations in general)

Link	Other comments:
http://mr-stadel.blogspot.com/2012/10/transversals-tape-and-stickies.html	
xliYva5wexXpII/edit?usp=sharing	
1/index.html	
ohM7nRFE9ArH3G7PQpZ-lYuY/edit?usp=sharing	
2HmMcNxxePOp8hd6AGg/edit?usp=sharing	
zPODTobWz6oAEohmYdqlcIfClzs/edit?usp=sharing	
https://tinyurl.com/alg1btc	
PlUKn3JcOsp5c/edit	
xliYva5wexXpII/edit?usp=sharing	
http://mr-stadel.blogspot.com/2012/10/transversals-tape-and-stickies.html	
k/index.html	
	teacher created
6fOAog6Uo/copy	teacher created
3wEUNSAZ4uCfr8NWo07f0/edit?usp=sharing	teacher created
Standard Form to Slope-Intercept Form	Teacher Created
56a4JjbWoQWi7mFY/copy	teacher created
Equations Splat	Teacher Created
https://drive.google.com/file/d/1OMhu-5X5EMB_0HPPqjV4Yrf7sS6TXQVc/view?usp=share_link	teacher created
https://drive.google.com/file/d/1RQBx5c_MNL6dFY6BMbt29JEcyEKmiHnl/view?usp=sharing	
https://hailstonesequence.com/index.php/2022/04/11/my-favorite-problem-for-launching-a-systems-of-equations-unit/	My blog post explains how + why I use this problem (from 1885!) to launch our systems of equations unit. Includes slides for launching the activity.
Solving Linear Equations	teacher created
https://docs.google.com/presentation/d/1PzOtfp85z_cXtNapmaerWCwj6tbkkFfY90gnCybk4sA/edit?usp=sharing	This is actually one solution, no solution, and infinite solutions.
https://docs.google.com/presentation/d/1V26w-2_bNSM7KYlqf9AktFisBybp36RnWRpw2wjnqJo/edit#slide=id.ge6cd5dd4c2_0_4	teacher created

Slideshow with instructions for students https://docs.google.com/document/d/1QHiaRRBCwcLMLVsSErSLGSDOSfmWOdKLtGBo0xruFbE/edit?usp=sharing https://docs.google.com/document/d/1fbreRm2tZIErQrk8PCYSB2L5jpzvxTkWFDREFIh18JE/edit	Teacher Created Talk through: 2x=6, then 2+x=6, then 2-x=6, then x/2=6, and finally 2(x-2)=6 and the two ways of solving it. Do all together, before worksheet. The worksheet does take 2 days, split in half for non-accelerated classes
http://slamdunkmath.blogspot.com/2013/11/solving-systems-with-manipulatives.html?m=1 https://docs.google.com/document/d/1CGAw4wNCKzbNEJ6KlihlfPxoBEylU-hUWJVFI1fZFI8/edit?usp=sharing	from Alex Overwijk Grade 6/7 content, but could be used to scaffold equation solving for Gr 8 from @mr_keysmusic Thank you @Alanna for your thin slicing lesson. This is a variation of the same task but it starts with one-step equations. We also added a blank line so students can be given a set of equations to solve (cut the handout into strips) one at a time.

https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf	Imagine that you are in a school that has a row of 100 closed lockers. Suppose a student goes along and opens every locker. Then a second student goes along and shuts every second locker. Now a third student changes the state of every third locker (if the locker is open the student closes it, and if the locker is closed, the student opens it). A fourth student changes the state of every fourth locker. This continues until 100 students have followed this pattern with the lockers. When finished, which lockers are open? How do you know?
don newman	teacher created
https://docs.google.com/presentation/d/1thJh11Xh4oY8bUl6x64N2TavlHvkJpiS7UtKA7codfM/edit#slide=id.ge92c50fa91_0_15	teacher created
https://docs.google.com/presentation/d/1c98J5102WHelir5n82siuAn_Tf3qemcFTwWtWD-QSyE/edit?usp=sharing.	Presentation Created from https://mrmeyer.com/threeacts/superbear/
https://docs.google.com/document/d/1f9P9eTfgEMpM1DYz1LsLYDPf0Ze_SvCbA0lBfbhvQVs/copy	teacher created; TEKS aligned (8.5A)
https://hailstonesequence.com/index.php/2022/04/11/exponents-and-scientific-notation-in-a-building-thinking-classrooms/	This is a work-in-progress: I'm up to lesson 3 so far.
Exponent Rules lesson link	Why are questions 5 & 8 missing?

Perfect Squares lesson link https://docs.google.com/document/d/13etTDj79S_QUbwcEmLCYrerh9NcvBHkNP78fTgujPGo/edit?usp=sharing https://docs.google.com/document/d/1sVkhtHn00KVEPAkubjttPkLahjNBPpQnRl4-ewDJxdw/edit?usp=sharing https://docs.google.com/spreadsheets/d/14yF-UXIoluBwjJ75ykbsTWIUy3dP2wFfIId3qwZ57R0/edit#gid=1622682614	The first activity before the thin slice is based on the Perfectly Imperfect listed above. teacher created Teacher created; inspired by/problems adapted from IM 8th Grade, Unit 7.6. These sets of problems are for students to work through and discover the exponent laws. Can also be used to review/revisit.
Document 1) Nrich Pocket Money link 2) Open Maffiddle Exponents link 3) Graphic Organizer notes for Exponents 4) CYU Exponents- 1) Cheezits Activity A link to modified Notes page (updated numberline) 2) Open Middle Perfect Squares link 3) CYU Perfect Squares and Square Roots (Level 2 from Delta Math) + https://artofproblemsolving.com/community/c1105845h2631168_perfectly_imperfect	

	Triangles Desmos activity first. On the first slide, I had half of the students make an acute triangle and half make an obtuse triangle. After doing each slide through ten, on slide 11 we analyzed the acute triangles and the obtuse triangles. I skipped the remaining slides after 11. At the end of the Desmos activity, students knew the relationships between the squares and side lengths for acute, right, and obtuse triangles. Then, we did the problems in the document at white boards. During the activity, I encouraged students to draw diagrams to represent the triangles or application problem.
Pythagorean Thin Slice	5 presentations that lead students from finding areas, to finding square roots, to discovering the Pythagorean Theorem, credit to Jo Boaler, and her book Mindset Mathematics, grade 8
https://drive.google.com/drive/folders/1vxpWrk6ycuL4_R3m6f5kp-Smj4L5SCQ4?usp=sharing	
Discovering the Pythagorean Theorem	From MathShell.org
http://slamdunkmath.blogspot.com/2013/04/26-squares.html	From Al Overwijk on his blog. Shared by @traciteacher from her NCTM presentation (shared in the BTC FB page). Script included.
Ant Pythagoras Problem	Thin Slice based on Taylor Lord's Increasingly Difficult Problems
Full Lesson Link	
Expanded Tracks - Pythagorean Theorem	From Jim Matthews, Siena College

Discovering y = mx + b	Teacher created
Deriving the Slope Formula	Teacher created
https://www.fawnnguyen.com/teach/barbie-bungee	Credit to Fawn Nguyen **Needs a password to access**
https://docs.google.com/presentation/d/1AUljx77rwrMpooiDlFYvamsSmNGuHW4YpNk2Zskn154/edit#slide=id.p	From the Textbook: Discovering Algebra, An Investigative Approach. Book is sited in the document.
https://docs.google.com/presentation/d/12Cs-xEtYy-rNPoSIHbJsE7CzwR3SgTLRmD4rCI-W_4o/edit#slide=id.g1bcd67f2606_0_0	I used this question the first time I implemented BTC last month. I created a new slide and will add my other tasks for this standard as I move along. There's only one task for right now, but my kiddos did a great job.
https://docs.google.com/presentation/d/1y6zmDeU8gpVq2BlNK6DcJhtGjZtIHwlAA9NWMlSWCL4/copy	I created these slides during COVID. Take from them whatever is helpful.
https://www.openmiddle.com/similar-shapes/	from the Open Middle website
https://docs.google.com/document/d/1sVkhtHn00KVEPAkubjttPkLahjNBPpQnRl4-ewDJxdw/edit?usp=sharing https://docs.google.com/presentation/d/1K9GWiGbCPrCORYqg0PCdRfESiH1PInk1iANeIuvn078/edit?usp=sharing	teacher created
https://www.openmiddle.com/transformations-shortest-sequence/	This is from the Open Middle website. What I like about this task is that they offer another task with the same images where they are to do the same transformation using three movements. This could be a perfect extention.

https://docs.google.com/presentation/d/15cGQPES_nXM4nRiI1YIbuvi4HtfAhMZ6U7P3NHpicEE/edit#slide=id.ge5d4658aba_0_289	teacher created
https://docs.google.com/presentation/d/1qZG0TBbOISy7p_tFUpUyylsh8lb99AVZMWDIOtCeAMI/edit?usp=sharing	teacher created
slidesgo	teacher created
https://robertkaplinsky.com/work/ms-pac-man/	See also the different versions from other teachers that Robert has included at the bottom of his post. This is a great way to introduce the language of reflection, rotation, and translation to your class before notes on the nuances of each tranformation! Will be starting my unit with this
https://docs.google.com/document/d/1pmBOtwewTUBGrTreBgwl3sPiYEyVXCVV/edit?usp=sharing&ouid=108445979134301449558&rtpof=true&sd=true	
https://www.teacherspayteachers.com/Product/Mixed-Transformations-Practice-with-Maps-8062654?st=a804b1089aad073dd342535a901967c8	This activity is from TpT. Will be using this to launch into combining transformations with shapes after learning about rigid transformations
http://tasks.illustrativemathematics.org/content-standards/8/G/A/tasks/1200	from Illustrative Math
https://docs.google.com/presentation/d/1gL5WfchJ3HaAk0nM5bXUpxrkR_6Rp1ZOZsSUGbDX_kg/edit#slide=id.ge7d33d553e_0_32	
Meaningful Notes: Non-Specific Graphic Organizers	teacher created
https://docs.google.com/spreadsheets/d/14yF-UXIoluBwjJ75ykbsTWIUy3dP2wFfIId3qwZ57R0/edit#gid=1622682614	Shared by Laura in the Building Thinking Classroom practice sharing sessions hosted by Will Dunn
Grade 8 CCSS PrBL Curriculum Map https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf	www.aliciaburdess.com

https://danmeyer.substack.com/p/how-to-ruin-a-great-math-problem?utm_source=substack&utm_medium=email

https://docs.google.com/document/d/1JRESeWCCV7IEJzrE4s5xaWULdgriqViTRCstEpyQAdc/edit?fbclid=IwAR17uf__xyZ6wp7M4cx1jKRb_brWfEuL4ETSkcaF2056JNgBozAwQ-1b8mA make a copy

https://data.artofproblemsolving.com/course-docs/syllabi/algebra-a-syllabus.pdf See sample problem at end of document

NCTM Mr. Donnaly and the Candy Bar Task Teacher Copy and Student Copy	Since I didn't give calculators, there is a scaffold with the multiplication chart included that students found helpful.
http://mr-stadel.blogspot.com/2014/05/going-round-in-circles.html	(OUR Lessons 1 and 2)
https://www.openmiddle.com/similar-shapes/	
https://docs.google.com/presentation/d/1b8f0Bo1Ik1H3YZprh7DoPX6epmV1cSgFQtMJorrSv-E/edit?usp=sharing	
https://docs.google.com/document/d/1D4FdNkHwRvwTyCsLp1JOQKNlkUBwsQBk1EB-iW2OjTA/edit	

https://docs.google.com/presentation/d/1dffiHbcOZagoV7o5rmH5DoqjJyd57sSujXg3q6vY4Bc/edit#slide=id.gf2ef74cd5d_0_4	
http://tasks.illustrativemathematics.org/content-standards/7/SP/A/2/tasks/1339	Illustrative Mathematics
http://tasks.illustrativemathematics.org/content-standards/7/SP/A/1/tasks/974	Illustrative Mathematics
https://docs.google.com/document/d/15WN5ztGJPHRaOCrIFS8hPlUHJgWHbOYhNEfReQpM9Sk/copy?usp=sharing	https://docs.google.com/document/d/15WN5ztGJPHRaOCrIFS8hPlUHJgWHbOYhNEfReQpM9Sk/copy?usp=sharing
https://docs.google.com/document/d/1VZIqEgoZp6da9n0H0mNcDJ7Ws7dTmr3VzKASHsJb04w/copy?usp=sharing	4 scenarios with samples already created for students to evaluate. Used as a precurser to students created, simulating and evaluating their own simulations based on given scenarios
https://www.map.mathshell.org/download.php?fileid=1654	Mathematics Assessment Project (MAP)
Notes Additive Inverse	I used this to introduce additive inverse, we changed curriculums so it has a combination of problmes =)
LINK	I used this to introduce additive inverse, we changed curriculums so it has a combination of problmes =)
Link	

https://docs.google.com/document/d/1S_chn9HyJWAeJ1IwucpYRICVvjL9PolrImLfCm9TNiE/edit	After each round, discuss which strategies worked best for each problem and why
Link	
Integers Thinking Problems	https://docs.google.com/presentation/d/1-3mSIIG6iksDvhPFR8Z8MiAUxfIW8BvGTS2xStnwuBE/edit?usp=sharing
https://mathisvisual.com/integer-addition/	I use this a numbers Talk for students to Notice, Wonder, and think.
https://www.fishmath.com/interactive/chipboard	I use this to have students explore different problems (using the new problem button), create that problem on the board, and then check their answer. The answer will be green if their board matches
https://www.d47.org/cms/lib/IL01904560/Centricity/Domain/1722/6.2%20NOTES%20Cooking%20with%20Integers%20-%20Addition.pdf https://docs.google.com/presentation/d/1jVe4nlHeWLLyaV0dEDAaO99K-mJIBGSMUZYtFP6bLOU/edit?usp=sharing	super interesting to my students and helped them understand - S. Dobbs
Integer Sort	I have groups cut out the statements to put onto a poster but students could write them down on their VNPS's instead
	I have groups cut out the statements to put onto a poster but students could write them down on their VNPS's instead

https://docs.google.com/presentation/d/1ocvA4qDRT4VCSqT57CLGUA8JxzjRj_CBWtxQk_-9Iko/edit?usp=sharing	This could definitely be a non-curricular task for students who already have a grasp of negative numbers. I have actually used this with a very academically diverse group of 6th graders.
https://docs.google.com/document/d/1iraOy5TTOMC4Y5CrnNqOsR79saVe2L6fJjPbYfoPKwA/edit	
https://www.inquirymaths.com/home/number-prompts/laws-of-exponents-inquiry	I included negative exponents in follow up examples even though it's an 8th grade standard.
https://docs.google.com/document/d/1mcymTDoCC82B6cvw5spNlFgPEhl1vKAdwC1ja1iqJoA/edit?usp=sharing	Teacher copy
https://docs.google.com/document/d/1mui3vgauxfarNtgZiCpD0KHf6ZwFBXOFWCiocSiKqs8/edit?usp=sharing	Teacher copy
https://docs.google.com/document/d/1xB79N1pTr77NLbGnRzBxP5YuMyyeJb6TQyfy0cP_cf4/edit?usp=sharing	Teacher copy
https://docs.google.com/presentation/d/1zEDjSNFgyPzlFSfFxA9BGCKVj4Qx9_lcOlzGGFcmowE/copy	Inspired by an activity that Tim Erwin posted in the BTC FB group. Includes slides for fraction, improper fractions, and mixed numbers. Also includes blank templates in order to modify this activity to the needs of your students.
https://docs.google.com/presentation/d/1BFw3OuC8dBIyqxhRPJM79BHXicZ2_Ollv1QPV3bFD54/edit?usp=sharing	Found on Mathletics
https://docs.google.com/document/d/1BkabOiBaDRnvbOMykVAmdCh3RML4xpJ6ZaJJx_Eajac/copy	Great for use with lower level learners or an introductory thinking task.
https://teacherthrive.com/teaching-order-of-operations/	Teacher Thrive blog post that includes a link to the activity in TPT. Activity is free in TPT

https://teacher.desmos.com/activitybuilder/custom/5b4ab67a45f48c4f601ba41b	Practice adding/removing balloons (positives) and sand bags (negatives) to make it through holes in the wall without crashing (real explosion graphic!) Does a great job going from game mode to translating into number sentences and utilizing integers after practicing with the balloon and sandbags.
https://docs.google.com/presentation/d/1I2jGOI9nGI16HG9k5MUcz8qaNhlR1-v84diH3aRCeSE/edit?usp=sharing	Would intro activity by using integer chips to show taking away negatives, and how when you take away negatives, the number is larger than when it started. Would also show how if you need to take away more negatives or positives than what you started with, you can add zero pairs. During the tasks, they should be discovering that subtracting is the same as adding the opposite. Would show that during consolidation.
https://docs.google.com/presentation/d/12YPDJRqInIRGw_H56OnXERhnfQtzrTCkFOcpE9QNwuY/edit?usp=sharing	Intro script for multiplication --> one of the tasks has students use the fact family from the intro task 3 * (-3) = -9 to discover that -9/3=-3 and -9/-3=3, show the rules for multiplication and division are the same.

#2 Adding Integers	Would intro activity by using integer chips to show zero pairs, and model one or two addition problems. Would not introduce rules. **Credit:** First three sets of problems came from Amy Marcum, the rest of the problems came from Big Ideas 7th Grade MRL
Temperature Change (M7 U1)	I skipped the pre-assessment and have students work in group of 3. They completed the task on VNPs.
https://www.map.mathshell.org/download.php?fileid=1625	I skipped the pre-assessment and have students work in group of 3. They completed the task on VNPs.
	Have students write as a single expression.

Link
Link

https://drive.google.com/drive/folders/1sY89r7BDsoM4qYGBor4y3OA51QFNfshl?usp=sharing

https://docs.google.com/presentation/d/1KDCdJZui-nRuM1tAGjfRupxquTycNiOijp0kHBN_U8I/edit?usp=sharing	Start with human number line (shout out to Amy Marcum in the previous link) to introduce absolute value (look how -5 and 5 are the same distance from 0, that means they have the same absolute value), discuss if -8 is larger than 4, discuss the absolute value symbols, then send them to complete the tasks. Tasks are grouped by rigor level, so students have multiple problems on one page. I'd print a copy of all 8 sets for each group, then have them grab the next set as they complete.
Link	
https://teacher.desmos.com/activitybuilder/custom/6408e7be28d3c0871ef5a76f	I use this for the triangle inequality
https://docs.google.com/document/d/1BN1P-rWYEaGGZl00kPOmCENmMrG2DjH55TprQUDOnRU/edit?usp=sharing	From Jim Matthews, Sienna College
Full lesson link	Thin slice based on Taylor Lord's Increasingly Difficult Problems.
Full lesson link	Includes the Andrew. Stadel water bottle wager as the kick off activity.
Thin sliced: Distance around a snowman	

https://docs.google.com/document/d/1IlgnGoEp3vdH0O816cJz-jdYf1yHbsQP2IFq2w8_-jc/edit	Print more than one copy so early finishers can develop more formulas
Compound Shape Surgery Full lesson link	Print a copy for each group to help keep them in flow. Based on Taylor Lord's Increasingly Difficult Proble,s
	It might be good to refresh their minds on what supplementary relationships look like and what they equal. You'll have to prompt students to add up the angles.
https://nrich.maths.org/8098	I used this to have students discover the triangle inequality

https://docs.google.com/document/d/16z6I2s2PkhArOlusuUP-XMzMk38ggLxY85VLtU62b5A/edit?usp=sharing	
Percent Expressions Thin Slicing	I use this at the end of my expressions unit (which follows my percents unit)
https://teacher.desmos.com/activitybuilder/custom/57ae458a697f767c75597801	Thin slicing throughout activity and ends with students creating their own and sharing with classmates.
https://docs.google.com/document/d/1MPW_nRr5SaxEI_CVDpJH2iHFgRpqYaq05l45-JyiM-I/edit?usp=sharing	Students intuit the area and perimeter formulas without being taught. It's also nice to see different (but equivalent) expressions and talk about like terms, why the equations are equivalent, etc.
Equations Add 'Em Up.pdf	You can make a template and use this for any kind of problem/equations
https://www.openmiddle.com/two-step-equations-2/	See Open Middle for more variations.
Distributive Property 4 | Open Middle®	See Open Middle for more variations.
https://docs.google.com/document/d/1Sn94TuVZQAzY511sZSnmBV866bf4gRokFOc48FaEnac/edit?usp=sharing	I adapted this from the Open Up Resources/(IM).

https://drive.google.com/file/d/1_ZRhneVBLmY299lgxRPArHwwvDS9tj3a/view?fbclid=IwAR01vto0nJVCBcYCueeqvgDOLISAm56LQ_UyonCeXAxNdIvR5TxpkmQbpvQ Multiplicative and Additive Inverse Thin Slicing	I gave them 10 minutes to work and walked around to monitor. Then they would leave the sheet and rotate to the next group. Because I had small class sizes, I had a few extras that I could give out to my early finishers. https://docs.google.com/presentation/d/1egdq0GT0ZVQuj1K0FKGFJcLnAQrulnDhLrjOXpZUoes/edit?usp=sharing
https://docs.google.com/document/d/1q_SRkDpHUFW7Wk1hcSvxvxwEcksAIGLyNftInrCJQY4/edit?usp=sharing	This works well as an introduction to inequality word problems
https://www.101qs.com/2327 https://teacher.desmos.com/activitybuilder/custom/64078c852b15b291066e5234	I designed this for a class of struggling 7th graders to reteach equations mid-unit. Has 30-35 equations plus an unlimited practice slide at the end
Solve One Variable Equations Lesson link Distributive Property Lesson link	Full lesson plan with links This is the updated version of the lesson - using stage 1 notes with the errors on the left and language updated to mild, medium, and spicy.

Thin Slice (created as cards, or string is last page) CYU (problems and answers 3 levels)	The thin slice was created for review of the distributive property. I have the hand written string on the last page if you want to give them verbally. The CYU was created using the Basic, Intermediate, and Advanced levels - answers only on the back.
https://estimation180.com/expressions/	
https://www.kentuckymathematics.org/docs/Algebra_Rich_Task_Border_Problem.pdf	Extensions are to make the pool rectangular or to have borders that are 2 or more layers wide
https://mathprojectsjournal.files.wordpress.com/2013/02/pig-pen.pdf	
f https://blythevillemath.weebly.com/uploads/1/3/3/0/13301969/masons-secret.pdf https://tasks.illustrativemathematics.org/content-standards/tasks/310 Math 7 Unit 1: - Ratios and Proportional Reasoning	p. 49 and 50
https://drive.google.com/file/d/1Ejub73M9wkiLr0fO9uS7nYh2ln6lkgFF/view	Proportional Graphs
https://docs.google.com/document/d/1cuiRPdbxnK5qela7U-QwABCreBPEc--ueCbniHfcAIM/edit?usp=sharing	
Thinking Classroom Gr7 Algebraic Equations Problem Sequence - EXTENDED	Grade 6/7 content, but could be used to scaffold equation solving for Gr 8 from @mr_keysmusic
https://docs.google.com/spreadsheets/d/1T5rNoJUffdWLU11tql2Rb3xW64fs0XmTR-8U-j8NxN0/edit?fbclid=IwAR24pNnpaJnt6d_I5i7NOBMGRIDFihDof6wIVn_mE64t4h9BQRB-qFpwCpY#gid=1722010176	

https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf

www.aliciaburdess.com

https://www.openmiddle.com/category/grade-7/

Grade 7 CCSS PrBL Curriculum Map

https://drive.google.com/drive/folders/1Llr563D-pRpKd5iSba4gnWFcNP1Gk6wN?usp=sharing

https://www.draustinmaths.com/number

CEMC - Web Resources - Problem of the Week - University of Waterloo

https://access.openupresources.org/curricula/our6-8math/en/grade-7/teacher.html

OUR

Full Lesson Link

https://drive.google.com/file/d/1jCfH2gF0HBrRKzKvqHH62y74aqvtywqt/view?usp=drive_link

https://docs.google.com/document/d/1VoGUzhwjALCOO51ZtxT5rebOGT8H3LIw8Q9BeK1wcJY/copy

https://docs.google.com/document/d/1Cs-PB3beMgG5AQzQbxhS6iQZryciOPbm2B_a-ldx1nY/copy

https://docs.google.com/document/d/1Cs-PB3beMgG5AQzQbxhS6iQZryciOPbm2B_a-ldx1nY/copy

https://docs.google.com/presentation/d/1DtarTtZkFoU55RnWdB_GwgCC-n-FAuyZIuaoJs7Auyk/copy

https://drive.google.com/file/d/1tGtSEWBhochryGUYn18YmwaBal9WnqEM/view?usp=sharing

https://nrich.maths.org/12618

https://nrich.maths.org/unequal

https://nrich.maths.org/wipeout

Google Slides presentation

Full Lesson Link

Full Lesson Link

Full Lesson Link

https://danmeyer.substack.com/p/how-to-ruin-a-great-math-problem?utm_source=profile&utm_medium=reader2
https://access.openupresources.org/curricula/our6-8math/en/grade-6/unit-2/lesson-4/index.html#activity-2

https://nzmaths.co.nz/resource/lunchtime-activities?fbclid=IwAR1wCKi5qP2mNJqJ2ZFq0ORvXdeox0YnMGVnqQ39Nhs-b3Iv8HJ6RCvUC_0

https://tasks.illustrativemathematics.org/content-standards/6/RP/A/3/tasks/1982

http://tasks.illustrativemathematics.org/content-standards/6/RP/A/3/tasks/54

https://resources.corwin.com/tmsj-highschool/student-resources/chapter-6/lesson-66-what's-a-fair-living-wage

https://www.map.mathshell.org/download.php?fileid=1598

https://www.map.mathshell.org/download.php?fileid=1584

https://www.aliciaburdess.com/_files/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf

https://www.aliciaburdess.com/_files/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf

http://threeacts.mrmeyer.com/nana/

https://www.101qs.com/2841-nanas-paint-mixup

https://gfletchy.com/rope-jumper/

https://gfletchy.com/let-it-flow/

https://tapintoteenminds.com/3act-math/fast-clapper/

Here are Google slides for the lesson, but the links will have to be added.
https://docs.google.com/presentation/d/1G68tgwJjbU5-bX9iIYZcQ0EIIf2idtvJIlrRncpIp5w/edit#slide=id.ge84c15517f_0_49

https://kristenacosta.com/clotheslines/

https://www.citizenmath.com/lessons/downside-up

Link

https://docs.google.com/presentation/d/1OeNqpksylK7KEfrnnmb-c9Hb47K2g9xmAp4qWdkUED4/copy

https://docs.google.com/presentation/d/1BFw3OuC8dBIyqxhRPJM79BHXicZ2_Ollv1QPV3bFD54/copy

https://www.openmiddle.com/comparing-and-identifying-fractions-on-a-number-line/

https://docs.google.com/document/d/1oX-12olHU0-FIET7ogTcA7fHX39FT6haMyj_bM0vacc/edit

https://www.teacherspayteachers.com/Product/Comparing-Ordering-Integers-Find-Someone-Who-3679809?st=9eb507167bf62631448f32e0876c0f5a

https://kristenacosta.com/clotheslines/

https://www.transum.org/Maths/Exercise/Express_As_A_Percentage_Puzzle.asp

https://mathigon.org/polypad/embed/KXAW2SBYIocOCQ?fbclid=IwAR0ICVyQBT2yWX5-5xRJ62P3ZroNpb8ckU7Ur-yXMOaO1VL_NtH9cdztgBE

https://docs.google.com/document/d/1u8E0soXP8hPHpq1h28X8eTvbtQ7LBRlcwS3e6Loy9k0/copy

https://docs.google.com/document/d/1czc7Pp9oWRZmbKLmQVpdgcUIIfksrB1kJAJ8MF55vvU/copy

https://docs.google.com/document/d/1GUFBXQ2gueINFo4YTKeSI44JS08mWA5cFIFSF7MOhko/copy

https://docs.
xgoogle.com/document/d/1VlUcqg3bZN3ZtRBVrz4kv6uIlwXBQ
Uj4UDVyNVDbvEw/copy

https://docs.google.com/presentation/d/19NIPnnqf_hB327L31D
dp6nXX2Gt_JU1dMMYpQC2bq6o/copy

https://docs.google.com/presentation/d/18WDi47qhLQOhF6Uj3
tLx_2y1M6lK4vb4/edit?usp=sharing&ouid=1057347584276244
47145&rtpof=true&sd=true

https://docs.google.com/presentation/d/1cHJWKbJg8luvJA-
OJQXJGIyemyFOPCwm4_XXtZfpF3w/copy

https://docs.google.com/presentation/d/116etSzpO60VcXUduY
oSZML2zcpIXpDOQz-0AbwylPCw/copy

https://docs.google.com/document/d/1_6ZsjAr4s7fm5EN0f3Dns9EwItqZ4uC_gh_u-fMaFmE/edit?usp=sharing

https://docs.google.com/forms/d/1Fc04yl4Mo7htaok9kubEFNTJ1TxGQZrRJb62Q3BDd60/edit?usp=sharing

https://docs.google.com/presentation/d/1QLaZv-I7jthfnai8zYUNdyloYWuC4jCB4rerLBvHHOY/copy

https://www.openmiddle.com/order-of-operations-2/

https://www.openmiddle.com/order-of-operations/

https://tapintoteenminds.com/3act-math/penny-a-day/

https://docs.google.com/document/d/14bOK8Xt2Q1-SDyrUoMz5NmWLwlNwhiaUACUX5MT8V00/edit?usp=sharing

https://docs.google.com/document/d/1IxV9DRRuyeEqR9xgLiYqPeWN_kUHIG16mIlAonH1QbI/edit?usp=sharing

https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf

https://www.aliciaburdess.com/_files/ugd/22cf00_171e22ec3bd24419a50faa01dce5ccaa.pdf jump tp page 70. Title is Chckerboard

https://nrich.maths.org/5632

https://docs.google.com/document/d/1oX-12olHU0-FIET7ogTcA7fHX39FT6haMyj_bM0vacc/edit

https://mathequalslove.net/twos-to-nines-challenges/

https://mathequalslove.net/?s=5-4-3-2-1+Challenge

https://www.fawnnguyen.com/teach/foxy-fives-cuz-its-better-than-four-fours?rq=foxy%20fives

https://www.gleammath.com/post/the-four-fours

https://www.youcubed.org/tasks/prime-time/

https://docs.google.com/document/d/1-JYT9k9hExc0xU9OG8sn_F04C5WE9gAZvhOg7793tGo/edit?usp=sharing

https://drive.google.com/file/d/18t_ugSYEuCX1BE_VqtaHpzsEpqxOQGEE/view?usp=sharing

http://natbanting.com/counting-factors-with-grade-78s/

https://nrich.maths.org/5448

https://mathforlove.com/lesson/prime-climb-color-chart/

https://gfletchy.com/geared-up/,

https://robertkaplinsky.com/work/how-many-hot-dogs-and-buns-should-he-buy/

https://www.peterliljedahl.com/teachers/good-problem#:~:text=tax%20man%20is%20played%20like%20this

Full lesson link

Full lesson link

Full lesson link

Full lesson link

https://docs.google.com/document/d/1BPDg62DjWJB5N_4uopXO5pwLtLAr4nJXhcEuVoU_Z5A/copy?usp=sharing

https://docs.google.com/document/d/199pLxzUSK-6muXYqNNRYlBPvN5DQSd9UAVz8xHPlEDk/copy?usp=sharing

Area Maze Form

https://mathequalslove.net/sankaku-puzzles/

Trapezoid Formulas

Trapezoid Inquiry

https://drive.google.com/file/d/1AteJSJHrwDeAQ4UlmrEThhYInsFcO19n/view?usp=sharing

https://docs.google.com/presentation/d/1ohz9yccCilqwt6maSTIKEv8FbvL0R2B94F5d_lsM0gM/copy

https://twitter.com/MsMessineo/status/1407372220213641221?s=20

https://www.openmiddle.com/area-of-three-triangles/?fbclid=IwAR2bW7oVmO8rkZyT0KWdwoDH-v_6eRuzVfBvaoNHxZKaHzxGGfhg2P2TDLk

https://gfletchy.com/overflow/

https://gfletchy.com/packing-sugar/

https://gfletchy.com/got-cubes/

https://docs.google.com/presentation/d/12xF-ecSBOX1zMvacLXHvCzu4G-Eq_jvpOJFxZNUKnso/copy#slide=id.g1527d3b9c99_0_45

https://www.openmiddle.com/area-perimeter-of-a-rectangle/

https://www.101qs.com/3675

http://mrpiccmath.weebly.com/blog/3-acts-pop-box-design

https://www.map.mathshell.org/download.php?fileid=1611

http://mr-stadel.blogspot.com/2012/04/file-cabinet.html

https://docs.google.com/document/d/1skcnbY6RtVWA9S1EFTIw-LmTda24f9jdb65XY2bUr1k/edit?usp=sharing

https://docs.google.com/document/d/1TxJbakyGVSfD4hiVQ17ibCgJ1NreKDFL5gtfWKg0z4Y/edit?usp=sharing

https://docs.google.com/presentation/d/1AdUF6-AqZBHsznYnhG90B4lMcCYP4rNz1EWn_kuvobQ/copy

https://docs.google.com/presentation/d/10P5OWseCotPmXkbDqmGwuRSYkdzdNzr3oNOrGcAKqrE/copy

https://drive.google.com/file/d/1ZG4AESFUkWcIUEHO-uHJMRzDLjRzFQ3J/view?usp=sharing

https://docs.google.com/document/d/1xzl-eXKiEpnk9shY_t7iIPKynVaY7O-rSKSs7x8TLLw/edit

https://docs.google.com/document/d/1xzl-eXKiEpnk9shY_t7iIPKynVaY7O-rSKSs7x8TLLw/edit?fbclid=IwAR2oGpFuSSdTsTEvlL00gIJV7b7XRsoTU_Hu4KgT0EJbJvMge_iJaDr0cic

https://docs.google.com/presentation/d/126GGxFu7g8LFNph8Xc7U96F1D7q8qC8JTHHKLwyS0Dg/edit?usp=sharing

https://curriculum.illustrativemathematics.org/MS/teachers/1/6/6/index.html

http://slamdunkmath.blogspot.com/2014/05/open-strategy-cup-stacking.html

https://www.scoe.org/files/mars-grade6.pdf

Resourceaholic
https://docs.google.com/document/d/1_3f-3FdWcWONmnQPdbJrWICVURRd3LSqNWdwhi5jfqQ/edit

https://taylorda01.weebly.com/increasingly-difficult-questions.html?fbclid=IwAR3UzL6YiHG6NUFt4xDOruLtRnrWpwLTN3X5umW_Ej_g6tgCWoG_wWt4g7E

https://docs.google.com/document/Id/1_3f-3FdWcWONmnQPdbJrWICVURRd3LSqNWdwhi5jfqQ/edit

https://docs.google.com/document/d/1Yre2M_BMrUp0tCn_8O3VP3e_ZhLVJK8iwIdmL1giCg0/copy

Order of Operations Intro

https://docs.google.com/document/d/14DVZdr4I79rmI4PTTN8aFDx0LYXm1QdSfP75OKvShHc/edit?usp=sharing

https://docs.google.com/document/d/1Vb6505Dd7-ZytVb2cYDcZ2cS71-fY2N7PiJnIdwzSMU/edit

Full lesson - multiply and divide fractions conceptual

https://docs.google.com/document/d/1LUkBNwtevQkhuw34dsNn-rPdUbKe9C1LVdJXJSlFsYA/edit?usp=share_link

https://docs.google.com/document/d/1XUdtRNqZCO0-msLygu1VscTToy-hKmUItRYyKFTQWjs/edit?usp=share_link

https://docs.google.com/document/d/1HBD31XlT0G_LOiLk2egry7ELW-QKBS8u-GSw6bYUtlo/edit

The notes are in alignment with Peter's zoom session in August of 2022

https://fractionslearningpathways.ca/

I have used many of the thin-sliced tasks with grades 4-6

https://docs.google.com/document/d/1k6-KUqd5Qj9frg9wN0UKpU4YZQOKDQ4yPcXXd5bPaYw/copy

https://docs.google.com/document/d/1YNLpJtsU_YcGHr7GdTB235gvkhe_jb7sdDaGU2r9Fdo/copy

https://drive.google.com/file/d/1P7kYrSTob_jGk1ZeVEVwVhaFRsO0FPzk/view?usp=sharing
https://drive.google.com/file/d/1dx_S5wLsPNuyHl1V1pN2FtJBZ3YiNo6J/view?usp=sharing

https://docs.google.com/document/d/13I_VxMQKmfNvtciP1ZICvHlmu3p_W_uqM85wjoHNVPg/copy

k

In the book

https://docs.google.com/document/d/13j4m9AGnc8Puh_ZVhUju6A-WMhE-g_rNfp2p4qF0L6Y/edit Can't access it

https://docs.google.com/document/d/17vPhyQNySXQwqVj6aXgRHDDriu1h3nCGhlI9J0RuGRQ/edit

https://docs.google.com/document/d/1cd53LLcPlTOivgiUFBuTbKbf_9NGpAMHv3bZZDknxjA/edit?usp=share_link 5.NBT.7 (part of it)

https://drive.google.com/file/d/1K7eNt8Y4JTg2MldBdVg6QWFWaD_UzJdQ/view?usp=sharing

https://docs.google.com/document/d/1UBz6KlkIXhGuCjIJXK4tiyiTv2kCQNMtuMJ8XINabHk/edit?usp=sharing 5.NBT.1 and 5.NBT.2

https://docs.google.com/document/d/1YRh701GWUJQuMRnzRTjC0eFNNGU0ETdHvULW0xpK-_8/edit?usp=sharing

https://nrich.maths.org/2006

https://docs.google.com/document/d/1mvHEI0vwYP9ogzhSUZUyYNVjquQxJAERARXeT89ivy4/edit?usp=sharing

https://docs.google.com/document/d/1qmP819lCGSPlVox8aVxdB7ujN_s6IFJyg7p0vD9wDDk/edit?usp=sharing

https://docs.google.com/document/d/1Iw8PdLhRH-e-gK-ri5gTYmY5LneDchj5vtoLhx9lPFA/edit?usp=sharing

https://www.scoe.org/files/mars-grade5.pdf

https://docs.google.com/document/d/1JtfDrZTlu0zl4uayJDJP-R5JnXYaqIeCP-dH6thQ8Uw/edit

Arcade 3 act task, round and add - https://mscastillosmath.com/2018/02/25/3-act-the-arcade/ It is hard to make rounding fun..but this one was great

Exploding Dots

Explore all worlds!!

https://www.youcubed.org/wp-content/uploads/2017/07/WIM-Day-2-gr-3-4-vF.pdf

If you get the actual book with this lesson there is a game and extension that goes with this lesson. It is awesome Book here - https://amzn.to/3VKhvWh

Equivalent Fractions - full lesson link

Dividing Shapes Lesson Link

Lesson plan/script from Kirk Keating @KSquared_Math. Original task from NCTM. There is also a Desmos version HERE.

Thinking Classroom Task - The Unusual Baker

https://docs.google.com/document/d/1lwJoOOkfk9llTvT_E0iTd6bIcTPg7QOK65H6Tw82b2M/edit

https://drive.google.com/file/d/16TUlrOilD3d5JooHIAoLgykhM3lCzQOP/view? Students check their ar

https://www.youtube.com/@realmath4all There is also a website

https://drive.google.com/file/d/1CueRXKxcuKMHLtMaoxcZNfYBegefEFpu/view?usp=sharing

https://teacher.desmos.com/activitybuilder/custom/65afd0b5450a74e473ec6be1

https://drive.google.com/file/d/16q7twwaxs8RqpiSiZR3wgkWcqZXJ9Xw7/viev Used with Alberta Math

https://drive.google.com/file/d/1THeQsp_V1doPgvXRKU1VJGkttTfOoqL_/viev Used with Alberta Math

https://www.statsmedic.com/lesson-plans

https://docs.google.com/document/d/1S_pV6Tf8YbgKwA2OX39AJAuwWGjHdNZKSdgpGUzNlgQ/ed

https://docs.google.com/presentation/d/1ncoVdJjP-iZTpu22lynIqMXHEG7TY2w3KZrS_CN8xME/edit?

https://drive.google.com/file/d/1qn8lkb4HgAdwE5lP7DGuOKqdWK8ReXBU/v This is a "Choose Your

https://drive.google.com/file/d/1PAPhnx24wUpOVHZQyDM029Qx2yB3gvD4/v The answers to all the p

https://docs.google.com/document/d/1yFQBLkGTerm4s785VAriQIsUXWOXF This was created for the

https://docs.google.com/presentation/d/1s1lPt4Dz97dnOGQxU1L6AA0HxxI_ Teacher Created

https://drive.google.com/file/d/1bjj-vcJoniqMGgUn4xMxPl65tsccS_p6/view?usp=sharing

https://docs.google.com/document/d/1ArSKiTjNPaZcxp1LiAlSpWpH3gKcvB5 Attached is correspond

https://docs.google.com/document/d/1joVZXahfrKnYuqRDPw9q03GoLfijeFfGVr5HQ9qetqk/edit?usp=

https://drive.google.com/file/d/1LA8UUV-WVIIs4yEILX0swOxH9QCHQdEd/vi GeoGebra Link: https://

https://drive.google.com/drive/folders/14p_z1wxBgWW_anKTMQvLXoytuOOVEC1n?usp=sharing

https://docs.google.com/document/d/1xccBXGTYSrmYe8AbsYC7dZFGzdFU Appropriate for any leve

https://docs.google.com/document/d/1mUB46yfqCG3xyVHHBo0YKD7wEXqk Prior knowledge: The s

https://docs.google.com/document/d/1ahE4qqj0h_GkIGXXR9Hq8sKDlrgoIhS This was the students' f

https://docs.google.com/document/d/115GGuS6hp_jjAuu23qDInlS1Jr0MORWn/edit?usp=sharing&ou

https://docs.google.com/document/d/1xBAw_iCUTROpEgxfy4173KSONEK-fUBA/edit?usp=sharing&

https://drive.google.com/drive/folders/1hFaif5E1KUOKsyMuy3YJNDQ2sXRRbHM3?usp=drive_link

https://tinyurl.com/alg1btc

https://docs.google.com/presentation/d/1aRCdqvNZw1HBtdM-4-FdkUvk07uovcUvPgXa053u8oI/edit?

https://docs.google.com/presentation/d/1WXK_iUm1kr9L2_cQ8X9v7Gc-euWNlJGuOxl5op3edHw/ed

https://docs.google.com/presentation/d/1vakFBRDyWfO9NWkQ9beGNoLjlH0NVbPeh0yuwbYqW50/

https://docs.google.com/document/d/1fTEuVy_iIKfPyX6OqRttdlr5ZUb6MivGpPWBu6xHcJQ/edit?usp

https://docs.google.com/document/d/1YTPw0Scz5138-HKnSg-6tjHRsEhZyKbAyR30plTCftg/edit?usp

https://docs.google.com/document/d/1J0pdYiMG2ShRNIxi5h-ELnRFjVy854GahAF3HO-8uX4/edit?us

https://docs.google.com/document/d/1LtngHQ5f6vTeVMxh4J74vfV948M7-X904VuHvtAuyr8/edit?usp

https://www.youtube.com/watch?v=Cg9BgHvUWzI Students also draw a pi

https://docs.google.com/presentation/d/1ZOLh_kd995x1ekD0nJ-sCgRJZduZO-jYUHC4Ko6ku-c/edit?
https://www.nysed.gov/curriculum-instruction/engageny-mathematics-curricul Both Erin and Vittesh a
https://nysed.sharepoint.com/:w:/r/sites/P12EngageNY-Math-EXTA/_layouts/15/Doc.aspx?sourcedoc
https://docs.google.com/document/d/1mOR9mfeSNYPdCyb8fT3cQPcIBG7Kpi5GAqBUFRj2Um4/vie
https://docs.google.com/document/d/19nC5jujadeyIMJ0S4LPNCjsEvOz2jBaWsckVo0Pk860/view?us
https://docs.google.com/document/d/1-bGwb57U7HsxrmuaOhxDmiCTpzOzN7FUNuk0I3eNQBk/view
https://drive.google.com/drive/folders/1Yw-6j7vrxyl0zfS8maCY_ps3En9LPtyl?usp=sharing
https://drive.google.com/drive/folders/1NR2aV8JuawqnYnR2QAUjie-EtwEnK\ I need to adjust some c
https://drive.google.com/file/d/1cXr6X0tlXWUtGO2D2mq6bE5e478lNnod/view?usp=drive_link
https://docs.google.com/document/d/1B2cY7KUaFsYlY2gJEm32lOj425cKP1HBCt-0OpJRh_c/copy

Students are shown representations of numbers (circles). With a 'Splat', part of the representation is hidden, and students are asked how many are still shown and asked to reason through how many are hidden. - explaination by instructure.com

https://teacher.desmos.com/activitybuilder/custom/5f5f5cd2a65d830ca17ddd79

Desmos (orginially Graham Fletcher 3 Act Task)

https://gfletchy.com/krispy-kreme-me/

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https://docs.google.com/presentation/d/1QLaZv-l7jthfnai8zYUNdyloYWuC4jCB4rerLBvHHOY/copy

g/
https://docs.google.com/document/d/1vqdixEiccYJhe8LcDiIyNmtlmZbsG9Nd_jR8TgRFonA/edit

https://docs.google.com/document/d/1HGVR3I_ag-xf3XXlKRrq_In4rjppIWuI_MTZFd9hmYo/edit

https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_a85521d1360d40f99d96f0e1265a5c31.pdf

www.aliciaburdess.com

Students are shown representations of numbers (circles). With a 'Splat', part of the representation is hidden, and students are asked how many are still shown and asked to reason through how many are hidden. - explaination by instructure.com

What is a product? What is a quotient?
https://docs.google.com/presentation/d/1GBQohnfv1QPkerr-9V2KqVCdst9jsOxjapNV5jCeoQY/edit?usp=sharing

K-4 options

https://mathathome.mathlearningcenter.org/activity/1704

https://www.insidemathematics.org/sites/default/files/assets/inside-problem-solving/inside_problem_solving_measuring_up_levela_student_2021.pdf

https://www.youcubed.org/tasks/many-rows-many-row/

https://docs.google.com/document/d/1nyAX-_TIkHESomk65iuRidjDNXj7E3CJnkGhJvohkdI/edit

Lesson plan/script from Kirk Keating @KSquared_Math. Original task from NCTM. There is also a Desmos version HERE.

https://berkeleyeverett.com/

K - 6 options

https://gfletchy.com/3-act-lessons/

K-3 options

https://www.amazon.com/Good-Questions-Differentiate-Mathematics-Instruction/dp/0807753130

K-3 options

https://drive.google.com/file/d/13MH66CssITCyckKVWH6-z75Y10LbFU35/view?usp=sharing

K-3 options

http://www.onetwoinfinity.ca/wp-content/uploads/2016/10/PEIELEM.pdf	K-3 options
http://ntimages.weebly.com/photos.html	K-3 options
Math Prompts	K-3 options
https://docs.google.com/document/d/1DdLXnNVkpBUagQL7VAztsQusxrFpOh-af6marytgZxE/edit	
https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_a85521d1360d40f99d96f0e1265a5c31.pdf	www.aliciaburdess.com

Students are shown representations of numbers (circles). With a 'Splat', part of the representation is hidden, and students are asked how many are still shown and asked to reason through how many are hidden. - explaination by instructure.com

https://gfletchy.com/3-act-lessons/	K-3 options

https://www.amazon.com/Good-Questions-Differentiate-Mathematics-Instruction/dp/0807753130	K-3 options
https://drive.google.com/file/d/13MH66CssITCyckKVWH6-z75Y10LbFU35/view?usp=sharing	K-3 options
http://www.onetwoinfinity.ca/wp-content/uploads/2016/10/PEIELEM.pdf	K-3 options
http://ntimages.weebly.com/photos.html	K-3 options
https://mathbeforebed.com/math-prompts/	K-3 options
https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_11e71a66c25f4afc9acd2c9b179ee650.pdf	www.aliciaburdess.com
https://www.doe.virginia.gov/testing/sol/standards_docs/mathematics/2016/rich/k-2/1-15-equal-task-template.pdf	Might use number tiles or cut up paper numbers to manipulate them quickly.
https://tasks.illustrativemathematics.org/content-standards/1/OA/C/5/tasks/1150	Could use ten frames (as suggested) or write # of things caterpillar ate & post at each VNPS
www.samebutdifferentmath.com	What is the same and what is different from each grouping? Intro to base ten blocks.
	Open Ended Visuals
Students are shown representations of numbers (circles). With a 'Splat', part of the representation is hidden, and students are asked how many are still shown and asked to reason through how many are hidden. - explaination by instructure.com	
https://tasks.illustrativemathematics.org/content-standards/1/OA/A/1/tasks/1152	Part of IM, multiple answers

https://www.doe.virginia.gov/testing/sol/standards_docs/mathematics/2016/rich/k-2/1-6-toy-car-task-temp.pdf	multiple answers
https://www.doe.virginia.gov/testing/sol/standards_docs/mathematics/2016/rich/k-2/1-2b-compar-pts-task.pdf	multiple answers
https://www.openmiddle.com/interpreting-data/	Students may need a guide to draw the x & y axis
https://aiminghigh.aimssec.ac.za/shadows-activity/	Maybe use after teaching 2D & 3D shapes
https://www.openmiddle.com/drawing-and-naming-shapes-by-sides/	
https://docs.google.com/presentation/d/1c0CUJJwFWVSX1NwK4cE5VCGpuYzLmmN4doOsIhaftHA/edit#slide=id.g212217e060a_0_79	
http://robertkaplinsky.com/work/enough-money/	US Coins - Students need to have knowledge of coins and their worth before task.
https://mscastillosmath.com/2016/04/20/3-act-task-lego-slide/	Quick one
https://www.openmiddle.com/open-number-line/	
page 155 in Building Thinking Classrooms in Mathematics by Peter Lildejahl	Thin-Sliced
https://docs.google.com/presentation/d/19CZEJG3NqB9QXkX-xhOFGYXFqullAeDb0xk3drsrf7s/edit?usp=sharing	

https://www.doe.virginia.gov/testing/sol/standards_docs/mathematics/2016/rich/k-2/1-6-nature-walk-template.pdf	multiple answers
https://www.insidemathematics.org/inside-problem-solving	For first grade I found the best tasks in the Pre-K category
https://docs.google.com/document/d/1cfDHY06w7qcgllOrUnhBNdGNGwOhawDz9_E5AKeXz10/edit	First Grade Sheet
https://docs.google.com/spreadsheets/d/13DL4Y-kKbA-dABxOZ91OBkeznD6zYMfpU_Ep0Hi67V4/edit?fbclid=IwAR3JRz0FHAaxte7_b7yfpchFE36ljOiiTDTmdD0o79vx_ORHNjXKiF98qX8#gid=805257279.	
Just a note that a lot of these links seem to be broken! Missing links can be found here, scroll to bottom for Grade 2 and Grade 3.	
https://www.aliciaburdess.com/teacher-resources	K-3 options
https://gfletchy.com/3-act-lessons/	K-3 options
https://www.amazon.com/Good-Questions-Differentiate-Mathematics-Instruction/dp/0807753130	K-3 options
https://drive.google.com/file/d/13MH66CssITCyckKVWH6-z75Y10LbFU35/view?usp=sharing	K-3 options
http://www.onetwoinfinity.ca/wp-content/uploads/2016/10/PEIELEM.pdf	K-3 options
http://ntimages.weebly.com/photos.html	K-3 options
Math Prompts	K-3 options
https://0902020e-01fe-4cfd-8c9d-706ffb626773.filesusr.com/ugd/22cf00_11e71a66c25f4afc9acd2c9b179ee650.pdf	www.aliciaburdess.com some of these tasks work for grade 1 as well
https://docs.google.com/document/d/1hyWzFp4ElZvUYjx3UjYqACHa_-u8z1zuOmOYw6yafm8/edit?usp=sharing	Created for TEKS K.3B

https://docs.google.com/document/d/12eWVl1SP0ehdZoaxV6xCfYMkmF3DTPhEOtKVDRXxIs4/edit?usp=sharing	Created for TEKS K.3A
https://docs.google.com/document/d/1k4oDDuyIwUVE_dQa391xwU0aENvoTtPXhdoyyvHtuKA/edit?usp=sharing	Created for TEKS K.2I
https://docs.google.com/document/d/1SK7oYE3OaHE-EP03HJemoEYqEK1IL9EANc3UkNRDlt0/edit?usp=sharing	Created for TEKS K.6B
https://docs.google.com/document/d/1_gDDfczFp-G_t2Wox0hFzYXmTCQRaseM1Ib9dzfmKLw/edit?usp=sharing	Created for TEKS K.6A
https://docs.google.com/document/d/1JUvhMCuiB87G68veXZ_zvRw73JqJ6NyAVvtzhWq6Kiw/edit?usp=sharing	Created for TEKS K.7B
https://docs.google.com/document/d/15Ocy0b7Gikb_84VznsbXo9M8h-lcRAaQctB3A41H-Hc/edit?usp=sharing	Created for TEKS K.2D
https://docs.google.com/document/d/1bhMY--D97elLg8EbOzRRCLZw2nL9Rk9BXdUXaUzyX8w/edit?usp=sharing	Created for TEKS K.2B

Students are shown representations of numbers (circles). With a 'Splat', part of the representation is hidden, and students are asked how many are still shown and asked to reason through how many are hidden. - explaination by instructure.com

https://docs.google.com/document/d/1MyXMtypmX6Gj-1xEqNT_XUFPKzbAaS_gE9gjVTIIyjY/edit?usp=sharing	Created for TEKS K.2E
https://docs.google.com/document/d/16I-_lCVyWjEPqJVwIilUH2bNKrMyhIeTbNqGBWiQkuQ/edit?usp=sharing	Created for TEKS K.8B
https://docs.google.com/document/d/1ZhnvPKDI2Qkc-mxAMDTfvPtSqFKR6jJTGPMXm_HHWQw/edit?usp=sharing	Created for TEKS K.8A
https://docs.google.com/document/d/1SSjSGh0MjSGJ2POL-tAbdUYcVhPJWwZ4O0PnhDySbFo/edit?usp=sharing	Created for TEKS K.6F
sembl.app	K-6 Options
https://gfletchy.com/3-act-lessons/	K-3 options
https://www.amazon.com/Good-Questions-Differentiate-Mathematics-Instruction/dp/0807753130	K-3 options
https://drive.google.com/file/d/13MH66CssITCyckKVWH6-z75Y10LbFU35/view?usp=sharing	K-3 options
http://www.onetwoinfinity.ca/wp-content/uploads/2016/10/PEIELEM.pdf	K-3 options
http://ntimages.weebly.com/photos.html	K-3 options
https://mathbeforebed.com/math-prompts/	K-3 options

"Insta-Famous" Task	
Link to Google doc	Includes Scripted Intro, Task Progression (including recommended Threshold and Extensions), Possible Leveling Discussion Questions, & Closure Activity Adapted from Lisa Sullivan Maneeley's post in the Facebook group
https://drive.google.com/drive/folders/1fZTUgP4SV1qBJcP39tu-Y3rnoVVE64Q1?usp=sharing	thin slicing. "Task" refer to in-class tasks. "CYU" is a check your understanding handout
Resources for the Classroom – Slow Reveal Graphs	Graphs have been stripped of their context and labels, and slowly more data is revealed
Statistics Unit--Navigational Instrument	
Task	
Notes https://docs.google.com/document/d/1n8Tq-NjzkX_TRcnHVx0Cytz6SD3D4mtwID_TIYgSppg/template/preview	Teacher Created
https://docs.google.com/document/d/1EGbypE7lpF_dy5AN52TH6RwCoRyp7tzSmD4_hlVeRh4/template/preview	Teacher Created Teacher Created - Based on Math Makes Sense questions
https://drive.google.com/file/d/1QPtiL8HEi7erlIM76WHL8-6KYR1nVBOV/template/preview	Teacher Created
https://docs.google.com/document/d/1EGbypE7lpF_dy5AN52TH6RwCoRyp7tzSmD4_hlVeRh4/template/preview	Teacher Created - Based on Math Makes Sense questions
https://docs.google.com/document/d/1xBmDk0o8Ei-49qmBC75UDwY3Fz3L3UYY3U50UXdrgeg/template/preview	Teacher Created - Based on Math Makes Sense questions

Task	
Notes	
https://docs.google.com/document/d/1HWQhAnTN0t8YxHT3ZMvzrOczN2kL4lWoTqLCDhdnqQM/template/preview	Teacher Created
https://drive.google.com/file/d/1IbiltPEM_9eCHmg3jlSFMZ8_dp5KPpTX/template/preview	Teacher Created
https://docs.google.com/document/d/1tuH9LPABIS7QDfcF1YJt_eTNDcYxwtNFsucp3ceT9HQ/template/preview	Teacher Created
https://drive.google.com/file/d/1-J_0y2xxaC5aLgNwMIixEkJ_UYILYCYz/view?usp=share_link	Teacher Created - Based on Math Makes Sense questions
https://drive.google.com/file/d/1ig74Vz-GcBvkfwiONcte4cY4_WUSKNr_/view?usp=sharing	TPT Freebie
Exponent Rules	Abby Bates
https://docs.google.com/document/d/1PXXbiWCHEGlMqLlwqPV7rPN3Jj38vcDeUpUCbSlxWkU/edit?usp=sharing	
Task	Teacher Created
Notes	Teacher Created
https://docs.google.com/document/d/15L1tE8CJuMrSMKQ0B6zgmQuxm2oHBRxvK3sMbvkD2uY/template/preview	
https://docs.google.com/document/d/1plQhxsZJFVnYFXBU-Eo_EW4H107xoOTG5dTcpdg_OJQ/template/preview	Teacher Created Teacher Created - Based on Math Makes Sense questions
https://docs.google.com/presentation/d/1oifP65StRDPcLjgrx0dKkc1RvlYOr_rhB9D80Xnmgh0/copy	Notes to use - https://docs.google.com/presentation/d/1p7lQykEUoIsrCJ9CpGorIdxsTzz4gmbWs2l_mdymC80/copy
Task	
Notes	
https://drive.google.com/file/d/1jKoHq0MYeha-QsrajlygbY61lGDYpNZE/view?usp=sharing	Teacher created
	Teacher created

Graphing Linear Functions Thin Sliced Task	
	Includes 10 Challenge Levels and 2 Parallel Questions Strings
https://drive.google.com/file/d/1A_mPKo_N7UialTnWzXhOskuBHjV9gvob/view?usp=sharing	
	Teacher created
Identifying & Interpreting Key Features of Linear Functions Task	
	Includes Scripted Intro and Task Progression (including recommended Threshold and Extension)
https://mathequalslove.net/function-auction/?fbclid=IwAR0kV9q9QnBH50wYAsZ8F8wmVTNfsQfEpE_gSRcmIDIP6mftevaLYgKuo7g	
https://docs.google.com/presentation/d/1PHvuUSD0MrqEhINPvaCi2_LAQplZDtAkzjc5U-X3zRU/template/preview	Teacher Created
https://docs.google.com/document/d/1bkCJ2Fau9zGO5BdejCa8YUqdOBMuAeRJ-oQN_ZQD1IM/template/preview	Teacher Created

Interpreting Rates of Change Task	
https://docs.google.com/presentation/d/1KZYrmzTd0SRo6gYnItICI_dmUu5O3diWqkh8DgpGI_0/edit?usp=sharing	Includes Scripted Intro and Task Progression (including recommended Threshold and Extensions); **THIS TASK PLAYS WITH THE DIFFERENT MODES OF ENGAGEMENT**
https://docs.google.com/document/d/1tTHfJ3yrl3_0tYOtGVYDqOC2RZ-qtkzfh1HWJXd_KhI/edit?usp=sharing	Teacher Created
https://docs.google.com/presentation/d/1jPILVqpm4EoJ7_WIBH2lHYexN145toF3Df4e75aus_Q/copy	Teacher created
	https://robertkaplinsky.com/work/in-n-out-100-x-100/

https://drive.google.com/drive/folders/18zxq5XuyOO-ZtwQTvxnZZ7TXidszbgAg?usp=sharing	
Linear Functions Unit--Navigational Instrument	
https://docs.google.com/presentation/d/1QMUUpXO23-qttynSbh3DiDwRwSudp7yKFVmQO-ekV70/template/preview https://docs.google.com/document/d/10AI6g5F0U4ZHOHT4-1JmI7AZBBNGtYobbu1Ht8R-pHw/edit?usp=sharing	Teacher Created
https://docs.google.com/document/d/1I7LTtv56zzfl66CWICNuWDd7cWaLqGaQMUfS3puketE/template/preview	Teacher created
https://docs.google.com/presentation/d/1NO8qkwNlHHJ3ksMu1wVTxVR2lCPQz5jII0dNjq38H0w/template/preview	Teacher Created
https://docs.google.com/presentation/d/1B1Q6UEVYnNT1DWZMufARoFPWaLM3OEaqNVfBeOxzvo8/copy	Teacher Created Notes to use - https://docs.google.com/presentation/d/1p7lQykEUoIsrCJ9CpGorIdxsTzz4gmbWs2l_mdymC80/copy
Writing Linear Equations Task	Includes Scripted Intro and Task Progression (including minimal Extension)

Task Notes https://drive.google.com/file/d/1opCSrGnkeUy6GsvOqvNOXRvR6wFUiOaw/view?usp=sharing https://docs.google.com/presentation/d/12eUjH5OoGj_9g2JJaCKO2DqUH_djUHJvW5PJgZodBOY/edit?usp=sharing	Teacher created I thought this was a VaDoE performance task but can't find the original document. Notes
Red Carpet Premiere (Sheet - Pixel Reveal) Problem Slides for VNPS	Teacher created
Creating Zero (https://www.openmiddle.com/?s=creating+zero) and Order of Operations (https://www.openmiddle.com/?s=order+of+operations) https://docs.google.com/presentation/d/1BN0XphcTp2ip9MGiwbYjfGr0DkV8iI6ZB-xrDd0Dwx8/copy	Open middle tasks are good for multiple grade levels and their website is organized by level or CCSS Teacher created

https://docs.google.com/presentation/d/1CvSVFWhhevScwYI_rnktTZQojlNZB8HkVl2afQW-Gv8/edit?usp=sharing	Teacher created
https://docs.google.com/presentation/d/1Ux__OMd_qqQIH7MRgBP6TWzS3qkAUE8ICPzDaEA7lYk/edit?usp=sharing	teacher created
https://docs.google.com/document/d/1S8XRWihfKXpf6lhgN1CzHEGxgi6bxIGv/edit?usp=sharing&ouid=106053485084789476927&rtpof=true&sd=true	Teacher created!
https://docs.google.com/document/d/1aNunB-aNQLyrxDHZ9p1gTNeLzgphmC2cN8szh7umWcw/copy	Card sorts can be effective if you let students do the sorting and defending of the sorting. Also, I included a story that also helped engage the students.
https://docs.google.com/document/d/1a0HicrGPC1bGhX_YmwNf6S4pAmgCcI9cnAxDbFNg378/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1tJVixS5WPt5yWx4CCG2hQXY9L43KipdQ/edit?usp=sharing&ouid=109943655109365147753&rtpof=true&sd=true	Teacher-created
https://docs.google.com/document/d/1m1WtrG_f9O50mPTmxA6EdXCc6jqPKG3a8znDEPHnnNw/edit?usp=sharing	Teacher created

Copy of 4-6 Polynomial Vocabulary and Adding/Subtracting Polynomials	
https://drive.google.com/file/d/14X7oFwUzTD54vh-a0Qaf23Y3rw31nZuk/view	Not created by me; I found on Twitter; I would like to give credit to who I borrowed this from
https://docs.google.com/document/d/1uGQ6WiXtMu2rEOOJIBbCJeSrZL7PZkTZNc_OcUbBsqw/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1ECFeE9KPdYl2XsTzlHxjEzWHOylJnPPJOHt5imQC08o/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1anUQscad5_fABilA2H-djMtM2AxgO_OZ4-VLx413-mY/edit?usp=sharing	Teacher created
https://drive.google.com/file/d/1cU8xfpLbdrl7qlmY0_CAGdMnsTGYX2eC/view?usp=share_link	
Exponential Functions Unit--Navigational Instrument	
https://tapintoteenminds.com/3act-math/penny-a-day/	Source: Three Act Math Tasks (Kyle Pearce)
https://drive.e.com/file/d/1edMpOJh-YPqOCtI7kaiRZwx7LP1QI-ha/view?usp=share_link	Teacher created
https://docs.google.com/presentation/d/1AfnLqED47AYbxtwGvNOYIAhEYsBdtlTdKrCIATkb-_4/edit#slide=id.g16b09795b57_0_436	Teacher created
https://docs.google.com/presentation/d/1uRA35k2ThruD3uXbGEaqB7Ld9jPfcVkSPRodAVUo7Eg/edit#slide=id.g16e08bc986d_0_867	Teacher Created
task	Teacher Created
Notes	Teacher created
https://docs.google.com/document/d/1OdSOZmOdE3NgvuP1KqH6gHZI9TQqxFITA5PVvJwSRi4/edit	Teacher created for community college classroom. Placed after factoring out GCF and before factoring trinomials.
https://docs.google.com/presentation/d/1gc9VmWk3pTRTho68MhM6Z9VbhwwKRmFQUFEkcQXd9ko/edit#slide=id.g16e09eaa090_0_0	Teacher Created
task	
Notes	Teacher created

https://docs.google.com/document/d/1BRe1IvZ5FidzO8PX3J8E85FTQHn4nn63/edit?usp=sharing&ouid=110640535790242514604&rtpof=true&sd=true	Teacher created (try this after my multiplying polynomials task)
Task	
Notes https://ggle.io/5QmS	Teacher created
https://docs.google.com/presentation/d/1ArfJ-UQrn7LJs4CGrbjxh7x9Vxj-UIUMYWr__7bAufE/edit#slide=id.g16b0a0d3e9b_0_434	Teacher Created
https://drive.google.com/file/d/1edz47yVmQjWJ9pq4VQmkHOPPgasJ6MlM/view?usp=sharing	Teacher Created
https://docs.google.com/document/d/1DMqkLdTJhAwHxiRSQenJ86bz9cwNxKDULCn2IdmBD68/edit?usp=sharing	Teacher created--added to task in book
Task	Teacher Created
Notes Task	Teacher created
Notes	
https://teacher.desmos.com/activitybuilder/custom/6447ef1e0d876bc3530b3d7d	Teacher created
Task	Teacher Created, Michael Birkeland, edited by Geraci
Notes	
BTC - simplification expressions algébriques.pdf	Teacher created
https://docs.google.com/document/d/1n2U0ovUIsmPtLW12cs--TKoDx60uNRoVFXSnxPiG49k/edit	Teacher created
https://docs.google.com/document/d/1T39BWNhkHGy381GdTxpvbFxnUHg-9LsN/edit?usp=sharing&ouid=109943655109365147753&rtpof=true&sd=true2	From Jim Matthews, Siena College
https://drive.google.com/drive/folders/1mnc-TYTVl2yOmKq4a090vwmu7AlYiqMi?usp=sharing	teacher created There are two files here- "A1ME 7.2 Task Multiplying Polynomials" and "A1ME 7.2 Task Script"

Task Notes https://docs.google.com/document/d/1M-oaCvYILDddd4pNqsUZJRxafCgoxM4wLIre5HjN85U/edit?usp=sharing	Teacher created
https://docs.google.com/presentation/d/19p-EAoejXJwW6Wrpb7BpZChnh2ty1bQoAwaWnY2q3lY/copy	Teacher created
Task Notes https://docs.google.com/document/d/17fLOMncBsEUUHPVjorB7yGVGZKP4JjQwP4pLNb7g98Q/edit Copy of 4-6 Polynomial Vocabulary and Adding/Subtracting Polynomials	Teacher created From Jim Matthews, Siena College
https://docs.google.com/document/d/1ma8g9m07UYT4b6YBnPjclfNhlowwEbtCrrUPOvwwlqk/template/preview https://docs.google.com/document/d/1dcoUzwHyNbB4Ks2g5zQKxbdJpqiukQXJWbjBFXC6Ick/edit	Teacher created
Polynomails Unit--Navigational Instrument Nrich Cycling Squares Quadratics Unit--Navigational Instrument	Teacher created
Task Notes https://docs.google.com/presentation/d/1sytn-DCTKfXU8_Z4CAH4vy7iWaEsZMwDuQupuopGKiQ/edit#slide=id.g16b08b08ddf_0_0 Google Doc version of Sharons problems	Teacher created Teacher Created added Mathigon lesson for completing the square

QF Thin Slices	
Task	
Notes https://docs.google.com/document/d/1A-DC_tVP2D4GUJgFrhMkgwLU0sTc88EkIKmIE7Qsxeg/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1UtJ9eYj9H3rYHpqL7BW_2qvefYQiR74vZtRr56puB_E/edit?usp=sharing	Teacher created
https://drive.google.com/file/d/1lVICnRRra-svfYB8V04NGo5rSoJS1FFO/view?usp=sharing	Teacher created
Solving Quadratics Algebraically Thin Sliced Lesson	Includes Task Progression (including recommended Threshold and Extension Questions) & Possible Consolidation Talking Points
Solving Quadratics by Factoring Discovery Task	
Task	Includes Scripted Intro for Critical Thinking Task with no "Correct" Answer
Notes https://docs.google.com/document/d/18AOprVDNbnrCbvk-wBrV83bq3ZkMaOUty4L1-_RwVq8/edit?usp=sharing	Teacher created
	Teacher Created

https://docs.google.com/document/d/1QOkZ9GhnCjJUm6bl1IE7hYToirCVAPwNkiXKm-1HPmc/edit?usp=sharing	
	Teacher created
https://docs.google.com/document/d/1ytSi5c3Zc-xmjnSpeq1_TmTb5LS_5AdLVQZNGBTFIEQ/edit?usp=sharing	Teacher created
Task	
Notes	
	Teacher created
ACTIVITY: https://drive.google.com/file/d/1bSw76YmrukccnBZlEx_z7rGX39CHBUZb/view?usp=sharing	
	Created by me
Task	
Notes	Teacher created
https://docs.google.com/document/d/1VM3nVQ8Cy2vnqQat9jPXiDI3RwNvZwxAsAPBiL2dSmA/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/12jCW0BB_R-8p9JMJBnHMshh9XZCLghHzlzV5VN5iCOY/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1tTHfJ3yrl3_0tYOtGVYDqOC2RZ-qtkzfh1HWJXd_KhI/edit?usp=sharing	
	Teacher created
https://docs.google.com/document/d/1yo3QreDOanu_U0mr10D6ff0zOqkHnAG0ix2sYe3Whqk/edit?usp=sharing	
	Teacher created
https://docs.google.com/document/d/1yo3QreDOanu_U0mr10D6ff0zOqkHnAG0ix2sYe3Whqk/edit?usp=sharing	
	Teacher created
https://docs.google.com/document/d/12jCW0BB_R-8p9JMJBnHMshh9XZCLghHzlzV5VN5iCOY/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1VM3nVQ8Cy2vnqQat9jPXiDI3RwNvZwxAsAPBiL2dSmA/edit?usp=sharing	Teacher created

https://docs.google.com/document/d/1-0lZbUn2D1YNGjGx8eHGKYZOeIswBwHAgHOLH_-9kIU/edit	Teacher Created
https://docs.google.com/document/d/1dZJ7zge_NMnGJfKclXld8GdZa5JidDVkTT6TOsNSRZA/template/preview	Adapted from BTC Open middle tasks are good for multiple grade levels and their website is organized by level or CCSS
https://docs.google.com/document/d/1_FBNUr18v0_1Gk6sAkDL7V0OO3PuVbkL-nTRZAb06pg/edit?usp=sharing	Teacher Created
https://docs.google.com/document/d/1TEgUkU9dcnPS8XhYfZkTDqiws61L6ncT7DZIUw4CtKA/edit?usp=sharing	Modified from a similar idea from Make Math Moments
https://docs.google.com/document/d/1FGY3_A1LztmOCblZpl2Bmy9sjK0fRCaYANiqbjr1C38/edit#	Teacher Created
https://docs.google.com/document/d/15IBjxYpWOEdQciMbnHmHDHBQ-cH0fkik/copy	Teacher Created Teacher Created
https://drive.google.com/file/d/1YHE615IbbKyACHbpcujZ1QcqsUgXOARr/view	
https://drive.google.com/file/d/1fSdX1g_BF2pkDSaoOTgWg_ckTRoIMulB/view?usp=sharing	A problem of the week from CEMC Waterloo
https://drive.google.com/file/d/171Q4oKCWGXmBauRzXrGyhvknOJKZvCj2/view?usp=sharing	Teacher Created Teacher Created

1-5 Simple Inequalities	
Notes	
https://drive.google.com/file/d/1qteuI2jRdhk2_I3-zfIBYnzEWmFH2P-Q/view?usp=sharing	Teacher Created
Don's Task Don's Notes Digital Version	Teacher Created (Thanks, Don Newman) Digital version of Don's thin slicing. I use a colored rectangle to cover each set and move it during the lessons as students progress
Day 1 page 1 Day 1 Page 2 Day 2 Notes Alg 1 L2.2-2.3A (TS).pdf	Teacher Created Teacher Created (Thanks, Don Newman)
Day 1 Day 1 #5 Day 2 Day 3 Notes https://docs.google.com/presentation/d/1FfSpnBLiQ3lIDKoQgrJPEvQD3lD_WnlvJbdrWoNfBeM/copy	Teacher Created
https://drive.google.com/file/d/1E-f4aY-YPhoPOfJ43oBNGfZweqATmzNL/preview	Teacher Created
https://docs.google.com/presentation/d/1bmKNhZxEp3PQqsCIwHlb5j-VpZtQaeB1iMRFwG2s_MA/copy	From the VA dept of education
https://docs.google.com/presentation/d/1PzOtfp85z_cXtNapmaerWCwj6tbkkFfY90gnCybk4sA/edit?usp=sharing	teacher created
https://docs.google.com/presentation/d/1GUX1k9ZnXmB7Y-BJiSADkPVRCDsb0cyIPZHm5LvbbCg/copy	teacher created Source: Kendall Hunt Illustrative Mathematics
https://docs.google.com/document/d/1SQkNDU7D7mBGYv5ZkwPBmQzP1BYX1ad4pC8OpUla57c/template/preview	Teacher Created

Don's version. Digital Version Don's Notes Equations Splat . https://drive.google.com/file/d/1qqWtq-SRa7IS1DV9NG_EaoN5yKP61G92/view?usp=sharing https://docs.google.com/presentation/d/1kjNj37wy8x9awowM-Li4wo7zvc4Mh5aCKCDexCOkRVY/edit?usp=sharing https://drive.google.com/file/d/1T28TiMy856rWiNwZ-XdIneeKr-PgHvY6/view?usp=sharing	Digital version of Don's thin slicing. I use a colored rectangle to cover each set and move it during the lessons as students progress The way I'm seeing it, each small dot represents +/- 1. You need to figure out what the splat represents to get the final term given. Basically, the splat is x. teacher created Teacher Created (Thanks, Don Newman) Teacher Created Teacher Created
https://docs.google.com/document/u/1/d/1NSr_scNqKp8CI38Hs-c3x-Ib8FdUuN4uuAKiku2xofk/copy https://drive.google.com/file/d/1RrSPf7vpAVDYhenIc4V81D2GExy31MlZ/view?usp=share_link https://drive.google.com/file/d/11ukkdry_IbQMN4oMKKlOycg2T0NvgR5m/view?usp=sharing https://docs.google.com/presentation/d/1OTeeUBeu-onBtVNFT3KJBTpjiNwWE6rDXe3T3T4Th6w/copy https://docs.google.com/presentation/d/1xVqNzQRrKkCpTNRgA9fIYlW0ljbvXulZ2oeRlWECMwg/copy **http://slamdunkmath.blogspot.com/2013/11/solving-systems-with-manipulatives.html?m=1** https://docs.google.com/presentation/d/1wtop4Il2NIQHp3_XT1jQjCFFBy_gry9UY7I4fq9rsZw/edit	Teacher Created Teacher Created Teacher Created Teacher created from Alex Overwijk Teacher Created

https://docs.google.com/document/d/1G5fHeB8rgpMnV8ljWaCyf_-C_AMhmD_t/edit?usp=sharing&ouid=110640535790242514604&rtpof=true&sd=true https://docs.google.com/document/d/1QHEH6HerO9HI_Cs8umasyiBNP2WZMTEVkmAKA0opvPk/edit	Teacher created
https://docs.google.com/document/d/16bYfnbvusKwtGTXQUtmGmg631YeKxae6/edit?usp=sharing&ouid=110640535790242514604&rtpof=true&sd=true	Teacher Created
Solving Systems-Elimination (Real-World Systems)	
https://www.heinemann.com/pps/pows/packet5156.pdf	teacher created
Cash Box	NCTM problem of the week
Maximizing Profits: Selling Boomerangs	Illustrative mathematics
https://www.101qs.com/3199	MAP Mathshell
4-1 Solving Systems of Equations by Graphing	Dan Meyer
Notes Task__Notes	Teacher created
Task__Notes	Teacher created
Task__Notes	Teacher created
Task__Notes	Teacher created
Systems of Equations Unit--Navigational Instrument	Teacher created

Solving Systems of Equations -- Graphing Method Discovery Thin Sliced Task	Includes 7 Challenge Levels with 2 Parallel Question Strings; Also includes Recommended Threshold and 3 Extension Questions
Solving Systems of Equations -- Substitution/Elimination Method Thin Sliced Task	Includes 7 Challenge Levels with 2 Parallel Question Strings; Also includes Recommended Threshold and 3 Extension Questions
https://docs.google.com/document/d/1BI0bpPNX3nmWAJ_M50SOcqhROB9wCMsqEptGhnH39jc/edit?usp=sharing	Teacher Created

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Practice	
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Full Lesson Link	Teacher Created
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Rates of Change Discovery Task	Math Medic Includes Scripted Intro and Task Progression (including recommended Threshold and Extensions)
Rates of Change Thin Sliced Review Task	Includes 7 Challenge Levels and 2 Parallel Question Strings

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Angles activities	
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https://im.kendallhunt.com/HS/teachers/2/1/1/index.html	Lessons 1 - 7 include paper and pencil constructions, followed by lesson 8 for using technology, and lesson 9 for applying perpendicular bisectors to Voronoi diagrams

https://drive.google.com/file/d/1WtCT_I1ZVfHUKgbTU7Jm5IdMM8jxQ7Jk/view?usp=sharing https://wfps-my.sharepoint.com/:b:/g/personal/cloveless_west-fargo_k12_nd_us/EcsoqriPLkdKlOk8JfosCEABltdMWIo--vzd39o0MXs7Pg?e=6upk04 https://wfps-my.sharepoint.com/:b:/g/personal/cloveless_west-fargo_k12_nd_us/EcsoqriPLkdKlOk8JfosCEABltdMWIo--vzd39o0MXs7Pg?e=6upk04 https://docs.google.com/presentation/d/1sLuFxVBrcuEUsHLJlHjbpKWRWIYNy2WoGK9CZUXXG1s/copy	The basic approach that I take is to do 5 minutes of talking about how every language has to start with some basic words that are undefined so we can build the foundation of the language. I then walk through with them the three undefined terms talking about dimensions, notation, etc. Have them figure out a definition for "chair" or Math Medic uses "shoe." We then consolidate that by figuring out the actual definition and then what it takes to make a good definition. Then, I give them a chunk of the "Is" and "Is not" and have them come up with definitions challenging them to use the words that they just defined in their new definition. So to define line segment, they should Just the image: https://wfps-my.sharepoint.com/:w:/g/personal/cloveless_west-fargo_k12_nd_us/Ec80VMo6Ql1Eg1sQefTSk-0B2NWrmLzpwAwofZTc6jENrA?e=8CfIf0 Just the image: https://bit.ly/3QFXA7S

https://docs.google.com/document/d/1Pd8_RjbTIelVtc8C1BHIiQHz30p0hzYVVgK8n1vdWRY/edit?usp=sharing	Asking for any feedback on this worksheet. Another one that has been removed :(
https://docs.google.com/document/d/12lAhU2DJ2Qs8YiwUO4JtvZRYcjeDuo21kJMVUWK6-QY/edit?usp=sharing	
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https://newellssecondarymath.blogspot.com/2016/01/algebra-proofs-cut-and-paste-activity.html?m=1&fbclid=IwAR3gUHDrtHinByxZp5DUZ4XG72rmR2Ffhmw6U-lKm2d_dHWu8s7Wlyqvdoc	Use this idea to create geometric proofs
https://docs.google.com/presentation/d/1wodGu6T2regdmn4fjS81NRkcAOR5YqXSsw3ApN9Ah-M/copy	Wrong link
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https://samjshah.com/2012/08/12/if-students-learn-then-weve-accomplished-something-part-i/?fbclid=IwAR3jNxoutJwTRgwz2CtymLI8AfqK1kbSbWcB8XBkuAu3dYJT9cN9LtXuzKM	This was shared in the BTC Geometry page, and is easily converted to VNPS. I can't take credit for it but wanted to make sure it was available to others!
https://docs.google.com/presentation/d/1usSxdsYXMEjS4do3KD14PDQ83mTUZhpI/edit?usp=sharing&ouid=108366725051214265013&rtpof=true&sd=true	
https://teacher.desmos.com/activitybuilder/custom/564f517e5cbb83e416c94244	I made this a long time ago, it could probably be edited to be more thin sliced. Would recommend launchinging with a review of linear equations/y=mx+b/slope.
Parallel Lines Transversal Thin slicing.pdf	hochs@pasco.k12.fl.us if you have more questions!
Parallel Proofs Peer Review.pdf	hochs@pasco.k12.fl.us if you have more questions!
https://drive.google.com/drive/folders/1Zg2Uqq0NfqQgFgfrCj6IWs-VrRHi5IYs?usp=sharing Full Lesson Link	Thin Slice based on Taylor Lord's increasingly difficult problems

Thinking Task Equidistance.docx https://www.map.mathshell.org/download.php?fileid=1752	This should get the kids to explore: 1) Any point on angle bisector is equidistant from both sides of the angle. 2) Any point on the perpendicular bisector is equidistant from both endpoints. The goal would be to then have them prove each of these theorems in a proof to practice their congruent triangle proofs.
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https://docs.google.com/presentation/d/1e9d91CG21IFAufVf_vojK8CMxLkIOY8N5u6LYIY6gjs/copy Full Lesson Link	Thin Slice based on Taylor Lord's Increasingly Difficult Problems
https://docs.google.com/document/d/1XB8h2DJiI3o6wxfEWyT2qroba5QkQesJ/edit?usp=sharing&ouid=117661891138455247927&rtpof=true&sd=true	

Unit 9 - Coordinate Geometry	
https://docs.google.com/document/d/1brT4-sBlIQ7HCejjC-2U64vozFTKfi85Z4dGshiluQI/edit?usp=sharing	Based on a task created by Henrico County Public Schools
https://bit.ly/35dvGOa https://bit.ly/3IDaJda https://drive.google.com/drive/folders/139QX03hkQC_f1y-9zEn66XPsn2sq-3-Y?usp=sharing	
Trig Ratios Group Exploration Trig Equations Thin Sliced 8.4 Day 3 Thin Sliced Inverse Trig Intro to Trig Ratios Thin Sliced Lesson https://docs.google.com/document/d/1plsnxtHfZ_WJAB_-_WvvWNASKAe8UQIUGntiLdgI86Y/copy Inverse Trig Equations Thin Sliced Lesson https://drive.google.com/file/d/1rST0cV4Jmj6xHv5Zy2pYVExRGD155Srv/view?usp=share_link	These three are my first few attempts at thin slicing (sort of)... if you have any questions or suggestions I'd love to hear them!
https://drive.google.com/file/d/1Pz22ZVbMU4EkdW_8MUobZKuBSl2IX5U7/view?usp=share_link	Quick format to be updated later.

https://drive.google.com/file/d/1z2i-AOsUGdws1uYE2IFLewMXrEA9BG1p/view?usp=sharing	Quick task that can be used after they've learned the converse theorem. I like the idea of doing this after they've done the noodle task above.
Option 1 (more advanced, shorter activity) or Option 2 (any level, longer activity) https://drive.google.com/file/d/1rST0cV4Jmj6xHv5Zy2pYVExRGD155Srv/view?usp=share_link https://drive.google.com/drive/folders/132LZ6A2Dce8wwi7PeS3JQoGXz7OttYOa?usp=sharing https://docs.google.com/document/d/1q4jCYcMZQJo3i-DVXbF63dMgIrwVCu44/edit?usp=sharing&ouid=104863163672285292216&rtpof=true&sd=true https://mathequalslove.net/special-right-triangle-discovery-activity/	These are built to be cut into "half" pages and passed out chronologically to introduce the idea of SRT My geometry students did this at it was AWESOME. I had them do 45-45-90 and then 30-60-90.
https://teacher.desmos.com/activitybuilder/custom/63026ed455866c0609cf283b	(These are Desmos slides so the kids can see them, draw them on their boards, then work the problem.)
https://docs.google.com/document/d/1KTdkfyIiFAKHAZPvWOA6htoXXEt64eCcx2K6FILMg4A/edit?usp=share_link	Meant to be half sheets printed for group work!
https://docs.google.com/document/d/1nkytTYIZLMDifcHQWBqvog93NdP2NpU0BBx0I_DwUog/edit?usp=sharing	Adapted from this: https://aofradkin.wordpress.com/2017/12/29/discovering-the-area-of-a-trapezoid/
https://docs.google.com/document/d/18uePkQvBsatZvwqdbvzy1sWGCuKvodE7K7Frcgx_IGY/edit?usp=share_link	Adapted from this: http://hchsmath.weebly.com/uploads/2/4/9/3/24930428/10.1_3_notes_key.pdf
https://docs.google.com/document/d/18jO9AmBdl93cCbxhvsvbteoLsyVnnlibWaouuH3lzOY/edit?usp=share_link	If your students haven't done circumference, change the last question on page 1 to say "how can you use your work so far to write a formula for circumference based on radius"
https://docs.google.com/document/d/11wocYI1qvdX5uQDI6jl6pDFAhwLwUsKpeG6i-rmeDuM/edit?usp=share_link	

https://ispeakmath.org/2014/05/02/volume-of-cones-discovery-lesson/ Volume of 3D Shapes with Play-doh | I Speak Math https://docs.google.com/presentation/d/1Wppe0HaAA8W0C12zpRZRKz5eqhqm5SuG2T4w-8gsrKI/edit?usp=sharing	Just found this online and adapted it to work for my kids :) Just found this online and adapted it to work for my kids :)
http://slamdunkmath.blogspot.com/2016/09/analyzing-bike-rim-in-5-days.html	I am going to use it to develop radians along with the other segments in a circle also. At the high school Geometry level we are not required to develop angular or linear velocity. I also like the idea of collecting data about the point on the rim and its height as it rotates around. Good information to further develop some fun small group activities.
https://drive.google.com/drive/folders/1fSPgFNLaD6UAconmJFmsn7KOvUv9Ot8x?usp=/copy https://docs.google.com/document/d/18AUMs5N1Zp8GhOP5IQ0senEtjr5TWHMwZmhzyCRcucM/copy https://docs.google.com/document/d/1QY29GkTL1lQFsSFxmzt1XAN2UPDojPsWFL9IYKzJ8_s/copy https://docs.google.com/document/d/1gxjO5f8d75P5oZM8nzpxsMByDANdvYUz33cUfNGc8hM/copy	I used Stefanie's activity above as Day 1, and will put the rest of my unit below as I design more. (Each day isn't necessarily one lesson, depending on your timing/schedule, but I labeled them as such to show the progression) Trying to avoid lecture on properties.. but also don't want every lesson to be measuring length and angles. If you have any feedback to make this better or more BTC or more interesting, please reach out!

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https://docs.google.com/document/d/1ifqOwTC1qdkGmBCIqzQ7MpBxnFRw8Pzb-wNsEtiUEOk/copy Google Doc https://www.teacherspayteachers.com/Product/Circles-Circumference-and-Area-Rounded-and-pi-answers-BTC-Thin-Slice-8352692?st=05082f6514251d4455237ca8aa6e70c0 https://drive.google.com/drive/folders/1SIJQMMiy25TEkXPwB_P9CknKw2_ETZ5R?usp=sharing	This comes after students have discovered the equation of a circle. *(It's basically an alternate version of Abigail's Day 7 above, to follow her Day 6 activity.)*
Solving Exponential and Log Equations Learning Progression https://docs.google.com/document/d/1VMnnbvlmMSwrsi65H3BBXJ9iJ4wEUDBZ/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true https://docs.google.com/document/d/1EA5x4PlF0hCNeRRX_rG0t6blO2qfiQ9y/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true	The first sets of 4 are exponential, the next 3 sets are logarithmic. The first 2 sets can be solved without a calculator by equating bases, after that, students will need a calculator. The Water Hyacinth has been altered from a task found on Mooreschools.com It focuses on growth doubling every 12 days. Formula developed, then altered for shorter doubling period. After students complete this task, they are given one similar dealing with actual early covid numbers in the UK with a doubling period of 2.76 days. Link to original covid article at the bottom.

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6-4 Part 1 Graphing Logarithmic Functions Teacher created

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Exponent Rules AND solving exponential functions with same base Teacher Created

8-1 Rescue Mission • Activity Builder by Desmos 8-2 Bowser's Castle Te

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8-1 Rescue Mission • Activity Builder by Desmos	8-2 Bowser's Castle Te
https://docs.google.com/document/d/1d3n_QeYtgkPNTBnE_VE833zN8htJDiiIFfe0yr7aMt4/edit?usp=drivesdk	task from @AnkerMath

1-1 Key Features of Functions	Teacher created
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3-2 Basic Key Features	Teacher Created
3-3 Basic Key Features Review	Teacher Created
4-2 Common Key Features	Teacher Created
4-3 Common Key Features Review	Teacher Created
5-1 Forms of Functions	Teacher Created
5-3 Forms of Functions Review	Teacher Created
6-1 Movie Madness	Teacher Created
6-2 The New MCU	Teacher Created
Puzzle 1 Alg1	Teacher Created
Puzzle 3 Alg2	Teacher Created
	Teacher Created
Puzzle 4 Alg2	Teacher Created
https://docs.google.com/document/d/1injSZb2wAaPQlkhM2mtbWiVWv22W1JTgdtR4QHHAj70/edit?usp=sharing	Teacher created
https://drive.google.com/file/d/1TiLO-_vPSZmnxns7y7qzCXE8a8wUWaDQ/view?usp=sharing	Teacher created
https://drive.google.com/file/d/1s-vNCcmrYQl6k_X-wjNVRjJ9sFRny7B-/view?usp=sharing	Teacher-Created

https://drive.google.com/file/d/1s0nxeWFWeaYf94MvbpLGU88JFC8ypVWh/view?usp=sharing	Teacher-Created (Thanks to Don Newman!)
2-2 Measuring Up	Teacher-Created
https://docs.google.com/document/d/1ryhhNu5pC9LDAR-sZYSGkMQBfr8UtEF6HlUYgYxftTk/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1DVrIDkHHV9OdWVnbTt-KwFfkxHJLSl1hpCqyarp77sA/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1-P-bUAXEHvvUiC6P2fVfSPd2NJedTodhGAHHm4XSkec/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1JimV-2jjbjLcX-2tLV5nGlBENdnFxxPs8xltO8elySQ/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/11ne-bKD2ZuRIfEsMr2jR86BOWZNU7RZOt4CjFpseMbA/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1UAISAPmsO3IBGTNSs4gRp4Kv46cTAShGAchrizdRFwg/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1yptVQSylIgsTqBTqBn8fFuuUw__w0pBp9MrssoeAcXM/edit?usp=sharing	Teacher created
https://docs.google.com/presentation/d/1ZIN_GsNXZmH1sZmfIPEmJKjhyH8wyZebkLzU6Mg4y6g/edit?usp=sharing	Teacher Created
https://docs.google.com/document/d/1zl7pWCYGYGyz7MShqpsCxL5LwEeh1-ODro1zGn0KSZQ/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1vjS_i6POdBZiv75bkmI5lobDfOMMxctY/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true	SpringBoard Alg 2 Problem
https://drive.google.com/file/d/1ZXXo1Ewo4jaQe3LQ1INyushbG51SykB1/view?usp=sharing	Teacher-Created
https://drive.google.com/file/d/1ZbYPkvSwRz14OTYJ0FqHx1C7-vU5M43Z/view?usp=sharing	Teacher-Created
https://docs.google.com/document/d/1OmuD94g0kCOCxQe6RnB9-y5Xd4_YktTSKq2ebTE7vio/copy?usp=sharing and https://docs.google.com/document/d/1GTeqbxOiw529AjUIyG5aNXb1RVKTknODP8I1YWtFe3g/copy?usp=sharing	Teacher created- Students graph different degree polynomials to discover how end behavior depends on the highest degree and leading coefficient of a polynomial function.
8-1 Rescue Mission • Activity Builder by Desmos	8-2 Bowser's Castle Te
https://docs.google.com/presentation/d/1_SHMWAcsd91-ZLe_66xLVXEy_O92-TqCEthytPOFgBg/edit?usp=drivesdk	link for graphs in the presentation notes. Task from Julia Anker (shared on Twitter @AnkerMath)
Will it hit the hoop? Sliders- Parabola	I had students discuss with their partner "what do you notice? what do you wonder?" Then they took notes on how the different parameters affected the graph.

https://docs.google.com/document/d/1q4zLZc9tAa1P3P24bHSK7cVtzUN5LrfmNfb2vHtjRW8/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1NSiw2T_ksadXPuWw-0BgcUvjZdKcvT1HP2EABwV1pQg/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1avruCXUhL8QuqZycpRlxqYbhM7jgnGu_1Sz4gZM2hkU/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1GXr3RvtPLWmfoK9pyE2EBXav12E5kB8aS1bdbNFhVtw/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1S0v_pqwDdV-Tu6uBDqcMcCKcOE9xqjf36qLK7JB1d3g/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1Zhpi8FGrRLgliRsHCqLuVsXFjC4dQrk_CGNRB02vaBk/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1kRoyeWKQpshewkm8zdMmnO-4m34pbaP_LPDt1Rkwv8k/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1k7ft_0Q5pS3OYE3PvDwSRYKdNwEd9v--k1vLgJxg5J8/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1jK86OVSTCfhE0u4UtlCymS5t72Ps_jNbY-ILRVkI4Ik/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1nKPtTdDiDo0UJBW6unTDr9S19Guti0JHYdvFqaUO-cw/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/19O6ZRXKSjeW1x3helY7gLFnPeQ_N9RbCBsfiqDD3wiQ/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1sotBtaXnp6P_8PaVt0mnalVDX66XKwIT/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true	Pulled from different text books
https://drive.google.com/file/d/1x7_rKV_Oc3wSIu3GF7mJbjI1Z2ooSFWi/view?usp=share_link	Teacher-Created (Thanks to Don Newman!)

ACTIVITY:

https://drive.google.com/file/d/1bSw76YmrukccnBZlEx_z7rGX39CHBUZb/view?usp=sharing	Created by me
8-1 Rescue Mission • Activity Builder by Desmos	8-2 Bowser's Castle Te

https://docs.google.com/document/d/10AI6g5F0U4ZHOHT4-1JmI7AZBBNGtYobbu1Ht8R-pHw/edit?usp=sharing

Get Real! Be Rational!	These are Google slides that are set up with columns for discussion if being used in remote learning situations or for students to use to take notes (explanation of their steps and writing the general strategy). The problem sets progress through rewriting numbers as products of perfect squares and numbers, simplifying fractions, radicals, fractions with radicals, radicals with fractions, rationalizing the denominator, complex numbers, factoring quadratics using special patterns, factoring polynomials, up to simplifying rationals in standard form. Sometimes I assign the last problem in the set as CYU.
https://docs.google.com/document/d/1ZAUzc0LEy5iUAG63nATV35P_cNFdyTVRa8ddGURVrPo/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1EP-Oecz04KekviaagLJhY4iBTBCc1H7Stx5WnOm9UMU/edit?usp=sharing	Teacher created
Graphs: https://drive.google.com/file/d/1rv3Nc6I4Jpqius4DBTJN90zUoEthdOBl/view?usp=sharing Equations: https://drive.google.com/file/d/1gP4Z8WW6O9e8yMviVEgFZ0xA6SDpu3lU/view?usp=sharing	Created by me
https://docs.google.com/document/d/1kHDEbRnaHB5iDsO92YxgtAr1NylDNG6vjc-X3qgK08Y/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1zTFt9fkQNzR_o7ekIanPTv8iJeGc8OVlZ_Zx6VrcIII/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1-AUsfRHNnpehMe5fjJd2AxO0pfas5RnOHqfSoH_focQ/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1eMaC7e80187_zQ9gybxu1py8y7GAZhJKZb77OKSsYwA/edit?usp=sharing	Teacher created

https://docs.google.com/document/d/1rmAizwrjr7sZ7MRzLalOJhQ3EjG2tPDZVDHKDMqaO1c/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1e1J3kd_L3rg8srwo38Phi7VXjIvEQ3v7OYOJuU2jFNA/edit?usp=sharing	Teacher created
Sigma Notation Introduction	Teacher Created
https://drive.google.com/file/d/1UJIFJfK6yIKogsTnhui90NCHGh3T-8Cq/view?usp=sharing	Teacher-Created
https://docs.google.com/presentation/d/1wajvcpt76kz1WAfA9UAP2eZd3LkJzOeenOQUs_JzSaw/edit?usp=drivesdk	teacher created- hand written, but hopefully will have time to type up at some point
https://drive.google.com/file/d/1ryreR4EJ7LLHOud5-olzIeQl1voO1s8x/view?usp=sharing	Teacher-Created
https://docs.google.com/presentation/d/125y182-EqffJVmOBSB4rrlmKzBONILXddsT7wRVB1Ug/edit?usp=drivesdk	teacher-created
https://docs.google.com/document/d/1fI_aWANUxlSIjH6cpu1RAQ-4bqhazLr6BB4maRXVe-M/edit?usp=sharing	Teacher created
https://drive.google.com/file/d/1s7tEpi-OxZTGhn8W-yW8U3kQfqJyIfD6/view?usp=sharing	Teacher-Created
https://drive.google.com/file/d/1s6FSrdg9g5UefnZXBpMt965x5SjhD5cF/view?usp=sharing	Teacher-Created
https://drive.google.com/file/d/1sG7gcmAd9Xjs2H7ZQtrMxyPB_96S9xBj/view?usp=sharing	Teacher-Created
Empirical Rule - Thin Slicing	Teacher Created
Z-score -- Thin Slicing	Teacher Created

	I had students do this after we had looked at transforming parabolas already (see tasks below for transforming parabolas) and we also looked at Desmos activities "What's my Transformation?" and "Marbleslides: Parabolas." Students did a great job and caught on well to the shifting of the different functions. We did this over a few days and recorded what they learned on a graphic organizer (in hindsight, a lot of equations to fit, so you may want to streamline it).
Slides https://docs.google.com/document/d/1NkrMO5JHq6Sr6nPIHY86wBGSpiatz7BwPkmOpxCoj5o/edit?usp=sharing	Teacher created
https://drive.google.com/file/d/1tCl3mKe8TqVM-IvGAcdjJKoby54gw2US/view?usp=sharing	Teacher-Created (Thanks to Don Newman!)
https://drive.google.com/file/d/1i6rQImSzRqyCQky3-5kdXlOQEktNXPpo/view?usp=sharing	Teacher-Created (Thanks to Don Newman and Todd Nelson!
https://docs.google.com/presentation/d/1UKVnrQrV-YFgsZVyVXZ3v9Myo07femMOztG_dofM5D0/edit?usp=drivesdk	teacher created, based on Julia Anker's "polynomial on my back" activity
2-1 What's the Function? Marbleslides	Teacher Created
https://scratch.mit.edu/projects/790846302	Teacher Created
https://docs.google.com/document/d/1oOgMyA2FQXQX09GxGQmHKqtaxI7tH5-l/edit?usp=sharing&ouid=110843610137108132281&rtpof=true&sd=true	

https://mathmedic.com/course/Algebra-2/unit/9	I teach Math 3 so I used some trig lessons from the Alg 2 and used lessons from the Pre-Calc to do graph the trig functions. It went really well.
https://docs.google.com/document/d/15JiWy7MtNmoQ2XHVKMju3XP9cbVPrFHo_iEYYNrT-T0/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1AvUiyc0UxL7y4KCyD9-kHr5LOcX3jWyXbrMyqjc9b34/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1Z5KshW0J41PNsVT1L5vwxWcqmRNSShn2LchLiWPn6vg/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1hd2a89tNMjAG8Qikqx8SXKSjk3c8BdqzNhSfdB_YsEs/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1PeNvLF2lqSXxFKRI_pcTRXANTODyaVPTUCkswds0hWU/edit?usp=sharing	Teacher created
https://docs.google.com/document/d/1dy99rAPPg13wz5IVRcrLpVzLq6_3D_Fln7-SJOZEomQ/edit?usp=sharing	Teacher created
https://drive.google.com/file/d/1hsN8kr-Kax_hHoKAwdwEVNh9DtC2StUe/view?usp=share_link	Teacher created

		Topics	
Author	Added to sheet by:	Kindergarten Topic:	1st Grade Topic:
Andrew Stadel	Katie Bills		
Dana Harrington	Dana Harrington		
OUR	Jessica Throolin		Full Year Resources
teacher created	Joyce McKay		
Tracy Landreth (adapte	Tracy Landreth		
chatGPT	Jessica Throolin		
Jessica Carlson	Jessica Carlson		
Annie Moses	Annie Moses		
Dana Harrington	Dana Harrington		
Andrew Stadel	Katie Bills		
OUR	Jessica Throolin	Full Year Resources	
	Mickie Gibbs	Pairs of Simultaneous	
	Mickie Gibbs	Pairs of Simultaneous	
	Sarah Forst	Pairs of Simultaneous	
	Crespo	Pairs of Simultaneous	
		Cones, and Spheres	
		Cones, and Spheres	
	Mickie Gibbs	Pairs of Simultaneous	
	Mackenzie Campbell	Pairs of Simultaneous	
	Justina Erre	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	
	Justina Erre	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	
	Hannah Frederick	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	
	Erica Cross	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	
	Dana Carie	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	
	Dana Carie	Solving Equations & Pairs of Simultaneous Equations 8.EE.C	

	Amanda Cloutier	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
	Alanna Lindahl	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
	Abby Bates	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
	Abby Bates	Solving Equations & Pairs of Simultaneous Equations 8.EE.C
		Solving Equations & Pairs of Simultaneous Equations 8.EE.C
		Solving Equations & Pairs of Simultaneous Equations 8.EE.C

Geeta Makhija	Rational/Irrational Numbers 8.NS.A
Jason Ayers	Rational/Irrational Numbers 8.NS.A
Dana Carie	Rational/Irrational Numbers 8.NS.A
Samantha Bennett - Original Creator of Super Bear activity	Rational/Irrational Numbers 8.NS.A
Dan Meyer	Rational/Irrational Numbers 8.NS.A
Neleigh Johnson	Rational/Irrational Numbers 8.NS.A
	Rational/Irrational Numbers 8.NS.A
Hannah Frederick	Radical & Integer Exponents 8.EE.A
Deborah Harper	Radical & Integer Exponents 8.EE.A

	Radical & Integer Exponents 8.EE.A
Jason Ayers	Radical & Integer Exponents 8.EE.A
Mackenzie Hawkins	Radical & Integer Exponents 8.EE.A
Abby Bates	Radical & Integer Exponents 8.EE.A
	Radical & Integer Exponents 8.EE.A
	Radical & Integer Exponents 8.EE.A
	Radical & Integer Exponents 8.EE.A
	Radical & Integer Exponents 8.EE.A
	Radical & Integer Exponents 8.EE.A

Jason Ayers	Pythagorean Theorem 8.G.B
Jessica Throolin	Pythagorean Theorem 8.G.B
Abby Bates	Pythagorean Theorem 8.G.B
Abby Bates	Pythagorean Theorem 8.G.B
Abby Bates	Pythagorean Theorem 8.G.B
Deborah Harper	Pythagorean Theorem 8.G.B
Tom Fisher	Pythagorean Theorem 8.G.B
	Pythagorean Theorem 8.G.B
	Functions 8.F.A and 8.F.B
	Functions 8.F.A and 8.F.B

	Michael Hayashida	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
	Michael Hayashida	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
	Liz Knutson	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
	Dana Carie	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
	Kandace McCoy	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
	Justina Erre	Connection Proportional Relationships, Lines, and Linear Equations 8.EE.B
		Connecting Proportional Relationships, Lines, and Linear Equations 8.EE.B
	KatieJo Serrano	Congruence and Similarity 8.G.A
	Dana Carie	Congruence and Similarity 8.G.A
	Dana Carie	Congruence and Similarity 8.G.A
	Dana Carie	Congruence and Similarity 8.G.A

	Dana Carie	Congruence and Similarity 8.G.A
	Dana Carie	Congruence and Similarity 8.G.A
	Dana Carie	Congruence and Similarity 8.G.A
	Anna Clark	Congruence and Similarity 8.G.A
	Angie Mezera	Congruence and Similarity 8.G.A
	Angie Mezera	Congruence and Similarity 8.G.A
		Congruence and Similarity 8.G.A
		Congruence and Similarity 8.G.A
		Congruence and Similarity 8.G.A
		Congruence and Similarity 8.G.A
		Bivariate Data 8.SP.A
	Dana Carie	**Full Year Resources**
	Abby Bates	**Full Year Resources**
	Abby Bates	**Full Year Resources**
	Abby Bates	**Full Year Resources**
		Full Year Resources

Unit Rates and Proportional Relationships 7.RP

Unit Rates and Proportional Relationships 7.RP

Unit Rates and Proportional Relationships 7.RP

Rebecca Williams	Unit Rates and Proportional Relationships 7.RP
Nickel & Wolf	Unit Rates and Proportional Relationships 7.RP
Nathan Kraft	Unit Rates and Proportional Relationships 7.RP
KatieJo Serrano	Unit Rates and Proportional Relationships 7.RP
Heddi Craft	Unit Rates and Proportional Relationships 7.RP
	Unit Rates and Proportional Relationships 7.RP
Jessica Simek	Statistics (Samples, Populations, Use Measures of (

Jessica Simek	Statistics (Samples, Populations, Use Measures of (
Hannah Edgar	Statistics (Samples, Populations, Use Measures of (
Hannah Edgar	Statistics (Samples, Populations, Use Measures of (
Carri Chesler	Statistics (Samples, Populations, Use Measures of (
Carri Chesler	Statistics (Samples, Populations, Use Measures of (
Emily Reinhard	Statistics (Samples, Populations, Use Measures of (
	Statistics (Samples, Populations, Use Measures of Center and Variability) 7.SP
Suzanne Schultz	Rational Number Operations 7.NS.A
Suzanne Schultz	Rational Number Operations 7.NS.A
	Rational Number Operations 7.NS.A

	Rational Number Operations 7.NS.A
	Rational Number Operations 7.NS.A
	Rational Number Operations 7.NS.A
	Rational Number Operations 7.NS.A
Tom Fisher	Rational Number Operations 7.NS.A
Michele Szymanski	Rational Number Operations 7.NS.A
Melanie Formosa	Rational Number Operations 7.NS.A
Melanie Formosa	Rational Number Operations 7.NS.A

Julie Pottinger	Rational Number Operations 7.NS.A
Jill Torrence	Rational Number Operations 7.NS.A
Jessica Simek	Rational Number Operations 7.NS.A
H.Wolf	Rational Number Operations 7.NS.A
H. Wolf	Rational Number Operations 7.NS.A
H. Wolf	Rational Number Operations 7.NS.A
Erin Beaver	Rational Number Operations 7.NS.A
Erica Cross	Rational Number Operations 7.NS.A
Carrie Herman	Rational Number Operations 7.NS.A
Brandi Henderson	Rational Number Operations 7.NS.A

Ashley Lipka Rational Number Operations 7.NS.A

Andrea Hart Rational Number Operations 7.NS.A

Andrea Hart Rational Number Operations 7.NS.A

Andrea Hart	Rational Number Operations 7.NS.A
Alicia Bena (credit to MAP)	Rational Number Operations 7.NS.A
Alicia Bena (credit to MAP)	Rational Number Operations 7.NS.A
Alicia Bena	Rational Number Operations 7.NS.A
	Rational Number Operations 7.NS.A
	Other Resources
	Other Resources
Paige Conley	**Other Resources**

Andrea Hart	**Other Resources**
	Other Resources
	Other Resources
Tom Fisher	Geometry (Angles, Circles, Scale drawings) 7.G
Tom Fisher	Geometry (Angles, Circles, Scale drawings) 7.G
Deborah Harper	Geometry (Angles, Circles, Scale drawings) 7.G
Deborah Harper	Geometry (Angles, Circles, Scale drawings) 7.G
Maggie Perreault	Geometry (Angles, Circles, Scale drawings) 7.G

Jessica Simek	Geometry (Angles, Circles, Scale drawings) 7.G
Jessica Simek	Geometry (Angles, Circles, Scale drawings) 7.G
Deborah Harper	Geometry (Angles, Circles, Scale drawings) 7.G
Jessica Simek	Geometry (Angles, Circles, Scale drawings) 7.G
Ashton Shetler	Geometry (Angles, Circles, Scale drawings) 7.G

Amy Marcum	Geometry (Angles, Circles, Scale drawings) 7.G
	Geometry (Angles, Circles, Scale drawings) 7.G
Tom Fisher	Expressions, Equations, Inequalities 7.EE
Spring Alvarez	Expressions, Equations, Inequalities 7.EE
Katrina Misley	Expressions, Equations, Inequalities 7.EE
Justina Erre	Expressions, Equations, Inequalities 7.EE
Jill Weiss	Expressions, Equations, Inequalities 7.EE
Jill Weiss	Expressions, Equations, Inequalities 7.EE
Jessica Throolin	Expressions, Equations, Inequalities 7.EE

Jessica Simek	Expressions, Equations, Inequalities 7.EE
Jessica Simek	Expressions, Equations, Inequalities 7.EE
Jessica Simek	Expressions, Equations, Inequalities 7.EE
Jaime Suarez	Expressions, Equations, Inequalities 7.EE
Hannah Johnson	Expressions, Equations, Inequalities 7.EE
Deborah Harper	Expressions, Equations, Inequalities 7.EE
Deborah Harper	Expressions, Equations, Inequalities 7.EE

Deborah Harper	Expressions, Equations, Inequalities 7.EE
Cheryl Fink	Expressions, Equations, Inequalities 7.EE
Anna Blinstein	Expressions, Equations, Inequalities 7.EE
Amy Marcum	Expressions, Equations, Inequalities 7.EE
Amy Marcum	Expressions, Equations, Inequalities 7.EE
Amy Marcum	Expressions, Equations, Inequalities 7.EE
Amy Marcum	Expressions, Equations, Inequalities 7.EE
Amy Marcum	Expressions, Equations, Inequalities 7.EE
Amy Marcum	Expressions, Equations, Inequalities 7.EE
Amy Hoekstra	Expressions, Equations, Inequalities 7.EE
Abby Bates	Expressions, Equations, Inequalities 7.EE
	Expressions, Equations, Inequalities 7.EE
	Full Year Resources
	Full Year Resources

		Full Year Resources
		Full Year Resources
	Abby Bates	**Full Year Resources**
		Full Year Resources
	Tom Fisher	**Full Year Resources**
		Full Year Resources
OUR	Jessica Throolin	**Full Year Resources**
		Full Year Resources
Deborah Harper	Deborah Harper	Statistics (dot plots, box plots, histograms, measures of center and variability)
Allie Lavenberg	Allie Lavenberg	Statistics (dot plots, box plots, histograms, measures of center and variability)

Bridget Adam	Bridget Adam	Statistics (dot plots, box plots, histograms, measures of center and variability)
Bridget Adam	Bridget Adam	
		Statistics (dot plots, box plots, histograms, measures of center and variability)
Bridget Adam	Bridget Adam	
		Statistics (dot plots, box plots, histograms, measures of center and variability)
Kate Naveau	Kate Naveau	Statistics (dot plots, box plots, histograms, measures of center and variability)
Kate Naveau	Kate Naveau	Statistics (dot plots, box plots, histograms, measures of center and variability)
Kate Naveau	Kate Naveau	
		Statistics (dot plots, box plots, histograms, measures of center and variability)
Kate Naveau	Kate Naveau	
		Statistics (dot plots, box plots, histograms, measures of center and variability)
Kate Naveau	Kate Naveau	Statistics (dot plots, box plots, histograms, measures of center and variability)

Kate Naveau	Kate Naveau	
Alicia Williams	Alicia Williams	Statistics (dot plots, box plots, histograms, measures of center and variability)
		Statistics (dot plots, box plots, histograms, measures of center and variability)
		Statistics (dot plots, box plots, histograms, measures of center and variability)
	Deborah Harper	Ratios, Rates, and Percents
	Deborah Harper	Ratios, Rates, and Percents
	Deborah Harper	Ratios, Rates, and Percents
		Ratios, Rates, and Percents
	Kristen Leiker	Ratios, Rates, and Percents

Sapna Sharma	Ratios, Rates, and Percents
Aviva Markowitz	Ratios, Rates, and Percents
Aviva Markowitz	Ratios, Rates, and Percents
Julianna Messineo	Ratios, Rates, and Percents
Nathan Kraft	Ratios, Rates, and Percents
Nathan Kraft	Ratios, Rates, and Percents
Nathan Kraft	Ratios, Rates, and Percents
Nathan Kraft	Ratios, Rates, and Percents
Nathan Kraft	Ratios, Rates, and Percents
Nathan Kraft	Ratios, Rates, and Percents
Nathan Kraft	Ratios, Rates, and Percents
Nathan Kraft	Ratios, Rates, and Percents

Nathan Kraft

Ratios, Rates, and Percents

Nathan Kraft

Ratios, Rates, and Percents

Nathan Kraft

Ratios, Rates, and Percents

Nathan Kraft

Ratios, Rates, and Percents

Nathan Kraft

Ratios, Rates, and Percents

Ratios, Rates, and Percents

Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)

Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)

T. Swain

Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)

Nathan Kraft

Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)

Nathan Kraft

Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)

Ashley Lipka

Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)

Nathan Kraft	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)
	Rational Numbers (including integers, opposites, absolute value, Coordinate Plane)
Colleen MacDougall	Operations with Fractions and Decimals, Order of Operations, Exponents
	Operations with Fractions and Decimals, Order of Operations, Exponents
Bridget Adam	
	Operations with Fractions and Decimals, Order of Operations, Exponents
Bridget Adam	
	Operations with Fractions and Decimals, Order of Operations, Exponents
Bridget Adam	
	Operations with Fractions and Decimals, Order of Operations, Exponents

Stephanie Ruopoli	
Adina R	Operations with Fractions and Decimals, Order of Operations, Exponents
Bridget Richard	Operations with Fractions and Decimals, Order of Operations, Exponents
Jon Overboe	Operations with Fractions and Decimals, Order of Operations, Exponents
Jon Overboe Jon, if you change the end of the URL from the word "edit" to the end to "copy", then it will force the user to make a copy. - Rebecca	Operations with Fractions and Decimals, Order of Operations, Exponents Operations with Fractions and Decimals, Order of Operations, Exponents

Julianna Messineo	
Lisa Yamagata	Operations with Fractions and Decimals, Order of Operations, Exponents
Jennifer Lunsford	Operations with Fractions and Decimals, Order of Operations, Exponents
Heidi Warrington	Operations with Fractions and Decimals, Order of Operations, Exponents
	Operations with Fractions and Decimals, Order of Operations, Exponents
	Operations with Fractions and Decimals, Order of Operations, Exponents

Heidi Warrington	Operations with Fractions and Decimals, Order of Operations, Exponents
Heidi Warrington	Operations with Fractions and Decimals, Order of Operations, Exponents
Noelle Borchardt	Operations with Fractions and Decimals, Order of Operations, Exponents
Nathan Kraft	Operations with Fractions and Decimals, Order of Operations, Exponents
Nathan Kraft	Operations with Fractions and Decimals, Order of Operations, Exponents
Nathan Kraft	Operations with Fractions and Decimals, Order of Operations, Exponents
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Nathan Kraft	Operations with Fractions and Decimals, Order of Operations, Exponents
Nathan Kraft	Operations with Fractions and Decimals, Order of Operations, Exponents

Nathan Kraft	
	Operations with Fractions and Decimals, Order of Operations, Exponents
	Operations with Fractions and Decimals, Order of Operations, Exponents
L. Stevens	
	Greatest Common Factor, Least Common Multiple
Julianna Messineo	
	Greatest Common Factor, Least Common Multiple

Alicia Williams	
	Greatest Common Factor, Least Common Multiple
Nathan Kraft	
	Greatest Common Factor, Least Common Multiple
Nathan Kraft	
	Greatest Common Factor, Least Common Multiple
Nathan Kraft	
	Greatest Common Factor, Least Common Multiple
Nathan Kraft	
	Greatest Common Factor, Least Common Multiple
Nathan Kraft	
	Greatest Common Factor, Least Common Multiple
Nathan Kraft	
	Greatest Common Factor, Least Common Multiple
	Greatest Common Factor, Least Common Multiple

Deborah Harper	Deborah Harper	
		Geometry (area, volume, surface area, nets)
Deborah Harper	Deborah Harper	
		Geometry (area, volume, surface area, nets)
Deborah Harper	Deborah Harper	
		Geometry (area, volume, surface area, nets)
Deborah Harper	Deborah Harper	
		Geometry (area, volume, surface area, nets)
		Geometry (area, volume, surface area, nets)
		Geometry (area, volume, surface area, nets)

		Geometry (area, volume, surface area, nets)
		Geometry (area, volume, surface area, nets)
Susie Halley	Susie Halley	
		Geometry (area, volume, surface area, nets)
Susie Halley	Susie Halley	
		Geometry (area, volume, surface area, nets)
Allison Gilmore	Allison Gilmore	
		Geometry (area, volume, surface area, nets)
Alicia Williams	Alicia Williams	
		Geometry (area, volume, surface area, nets)
Julianna Messineo	Julianna Messineo	
		Geometry (area, volume, surface area, nets)

Monica Harrell	Monica Harrell	
		Geometry (area, volume, surface area, nets)
Nathan Kraft	Nathan Kraft	
		Geometry (area, volume, surface area, nets)
Nathan Kraft	Nathan Kraft	
		Geometry (area, volume, surface area, nets)
Nathan Kraft	Nathan Kraft	Geometry (area, volume, surface area, nets)
Maria Searles	Maria Searles	
		Geometry (area, volume, surface area, nets)
Nathan Kraft	Nathan Kraft	
		Geometry (area, volume, surface area, nets)
Nathan Kraft	Nathan Kraft	
		Geometry (area, volume, surface area, nets)
Nathan Kraft	Nathan Kraft	
		Geometry (area, volume, surface area, nets)
Nathan Kraft	Nathan Kraft	
		Geometry (area, volume, surface area, nets)
Nathan Kraft	Nathan Kraft	
		Geometry (area, volume, surface area, nets)
		Geometry (area, volume, surface area, nets)

Deborah Harper	Deborah Harper	
		Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
Jennifer Heffner	Jennifer Heffner	
		Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
Jennifer Carter	Jennifer Carter	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
Emily Carton	Emily Carton	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
Jennifer Carter	Jennifer Carter	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
Alicia Williams	Alicia Williams	
		Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
Chelsea McClellan (some content adapted from Alicia Williams and Desmos	Chelsea McClellan (some content adapted from Alicia Williams and Desmos	Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
Alicia Williams	Alicia Williams	
		Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)

Anna Blinstein	Anna Blinstein	
		Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
Nathan Kraft	Nathan Kraft	
		Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
		Algebraic Concepts (algebraic expressions, equations, inequalities, graphing functions)
	Julie Pottinger	**Full Year Resources**
	@mathsjem	**Full Year Resources**
		Full Year Resources
	becca Flora	**Full Year Resources**

	I hope this is ok to add. It was posted in the Facebook page Abby Bates	**Full Year Resources** **Full Year Resources**
		Full Year Resources
	Christine Woodruff	Operations and Thinking (grouping symbols, patterns) 5.OA Operations and Thinking (grouping symbols, patterns) 5.OA Operations and Thinking (grouping symbols, patterns) 5.OA
	Tracey Bean	Operations and Thinking (grouping symbols, patterns) 5.OA
		Operations and Thinking (grouping symbols, patterns) 5.OA **Operations and Thinking (grouping symbols, patterns) 5.OA**
	Amy Alger	**Numbers and Operations - Fractions 5.NF** **Numbers and Operations - Fractions 5.NF**
	Deborah Harper	**Numbers and Operations - Fractions 5.NF**

Tracey Bean	**Numbers and Operations - Fractions**	**5.NF**
Tracey Bean	**Numbers and Operations - Fractions**	**5.NF**
Chelsea McClellan	**Numbers and Operations - Fractions**	**5.NF**
Christine Woodruff	**Numbers and Operations - Fractions**	**5.NF**
Tracey Bean	**Numbers and Operations - Fractions**	**5.NF**
Tracey Bean	**Numbers and Operations - Fractions**	**5.NF**
Tracey Bean	**Numbers and Operations - Fractions**	**5.NF**
Tracey Bean	**Numbers and Operations - Fractions**	**5.NF**

Tracey Bean	**Numbers and Operations - Fractions 5.NF**
	Numbers and Operations - Fractions 5.NF
	Numbers and Operations - Fractions 5.NF
Amy Alger	**Number and Operations in Base Ten 5.NBT.5-7**
Amy Alger	**Number and Operations in Base Ten 5.NBT.5-7**
Heather Rigatti	**Number and Operations in Base Ten 5.NBT.5-7**
Susie Halley	**Number and Operations in Base Ten 5.NBT.5-7**
Chelsea McClellan	**Number and Operations in Base Ten 5.NBT.5-7**
	Number and Operations in Base Ten 5.NBT.5-7

	Heather Rigatti	**Number and Operations in Base Ten 5.BNT1-4**
	Susie Halley	**Number and Operations in Base Ten 5.BNT1-4**
		Number and Operations in Base Ten 5.BNT1-4
		Number and Operations in Base Ten 5.BNT1-4
		Number and Operations in Base Ten 5.NBT1-4
	Tracey Bean	**Measurement & Data 5.MD**
	Tracey Bean	**Measurement & Data 5.MD**
		Measurement & Data 5.MD
		Geometry 5.G
	Tracey Bean	**Full Year Resources**
	Kari Johnson	**Full Year Resources**
	Abby Bates	**Full Year Resources**
		Full Year Resources
	Christine Rowlan	**Use place-value understanding and properties of operations to perform multi-digit arithmetic.**

	Christine Rowlan	**Use place-value understanding and properties of operations to perform multi-digit arithmetic.**
		Use place-value understanding and properties of operations to perform multi-digit arithmetic. **Understand decimal notation for fractions, and compare decimal fractions.** **Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.** **Represent and interpret data.** **Geometric measurement: understand concepts of angle and measure angles.** **Generate and analyze patterns.**

	Christine Rowlan	**Generate and analyze patterns.**
		Generate and analyze patterns.

	Deborah Harper	**Extend understanding of fraction equivalence and ordering.**

	Deborah Harper	**Extend understanding of fraction equivalence and ordering.**
	Abby Bates	**Extend understanding of fraction equivalence and ordering.**
Farah Fazalbhoy	Farah Fazalbhoy	
Martin Cornejo Maldona	Martin Cornejo Maldonado	
Tjeerd Alberda	Tjeerd Alberda	
Robin Mathews (with s	Robin Mathews	
Abby Rogich	Abby Rogich	
Kelsey Wasylenki	Kelsey Wasylenki	
Kelsey Wasylenki	Kelsey Wasylenki	
StatMedic	Kathleen Wetterlin	
Dana Harrington	Dana Harrington	
Adapted from Dr. Eric M	Dana Harrington	
Jill Kitchen	Jill Kitchen	
Jill Kitchen	Jill Kitchen	
Matt Owings Frisco HS	Matt Owings	
Barbara Barrett	Barbara Barrett	
Colleen Pirone	Colleen Pirone	
Abby Rogich	Abby Rogich	
Dana Harrington	Dana Harrington	
Jillian Graham	Jillian Graham	
Kim Raines & Amy Kee	Kim Raines	
Dana Harrington	Dana Harrington	
Julia Tsygan	Julia Tsygan	
Julia Tsygan	Julia Tsygan	
Julia Tsygan inspired b	Julia Tsygan	
Julia Tsygan	Julia Tsygan	
Darcy House	Darcy House	
Jessica Carlson	Jessica Carlson	
Jessica Heitfield	Jessica Heitfield	
Jessica Heitfield	Jessica Heitfield	
jessica heitfield	jessica heitfield	
Heather Smith	Heather Smith	
Heather Smith	Heather Smith	
Kelly Brown	?	
Dana Harrington	Dana Harrington	
Teri McCall	Teri McCall	

From Abigail Bates & E	Abigail Bates	
Eureka Math	Teri McCall	
Eureka Math	Teri McCall	
Amanda Bausack	Amanda Bausack	
Amanda Bausack	Amanda Bausack	
Amanda Bausack	Amanda Bausack	
Amanda Bausack	Amanda Bausack	
Amanda Bausack	Amanda Bausack	
Jillian Graham	Jillian Graham	
Sarah Stoy	Sarah Stoy	
		Extend understanding of fraction equivalence and ordering. **Draw and identify lines and angles, and classify shapes by properties of their lines and angles.**
		Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.
		Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.
		Full Year Resources
		Full Year Resources
	Christine Rowlan	**Full Year Resources**
		Full Year Resources
		Full Year Resources
		Full Year Resources
	Sasha Wise	**Full Year Resources**

Abby Bates

	Full Year Resources
	Full Year Resources
	Full Year Resources
	Use place-value understanding and properties of operations to perform multi-digit arithmetic.
	Use place-value understanding and properties of operations to perform multi-digit arithmetic. **Understand properties of multiplication and the relationship between multiplication and division.**
	Solve problems involving the four operations, and identify and explain patterns in arithmetic.
	Solve problems involving the four operations, and identify and explain patterns in arithmetic. **Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**

	Tina Bergman	**Represent and solve problems involving multiplication and division.**
		Represent and solve problems involving multiplication and division. **Represent and interpret data.**
	Morgan Brown	**Reason with shapes and their attributes.**
		Reason with shapes and their attributes.
		Multiply and divide within 100.
		Multiply and divide within 100.
		Geometric measurement: understand concepts of area and relate area to multiplication and to addition.
		Geometric measurement: understand concepts of area and relate area to multiplication and to addition.
	Abby Bates	**Develop understanding of fractions as numbers.**
		Develop understanding of fractions as numbers.
	Tina Bergman	**Full Year Resources**
	Tammy McMorrow	**Full Year Resources**
	Tammy McMorrow	**Full Year Resources**
	Tammy McMorrow	**Full Year Resources**

Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Abby Bates	
Abby Bates	**Full Year Resources**
	Full Year Resources
	Full Year Resources
	Work with time and money. **Work with equal groups of objects to gain foundations for multiplication.** **Work with equal groups of objects to gain foundations for multiplication.** **Use place-value understanding and properties of operations to add and subtract.** **Represent and interpret data.** **Relate addition and subtraction to length.** **Reason with shapes and their attributes.** **Measure and estimate lengths in standard units.**

	Add and subtract within 20.
	Add and subtract within 20.
Tammy McMorrow	**Full Year Resources**

Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
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Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Abby Bates	
	Full Year Resources
	Full Year Resources
Kris Serven via Virginia DOE	**Work with addition and subtraction equations.**
Nicole Medina	**Use place-value understanding and properties of operations to add and subtract.**
Gayane Hanyaloglu	**Understand place value.**
Berkely Everett	**Understand and apply properties of operations and the relationship between addition and subtraction.**
	Understand and apply properties of operations and the relationship between addition and subtraction.
	Tell and write time.
Nicole Medina	**Represent and solve problems involving addition and subtraction.**

Kris Serven via Virginia DOE	**Represent and solve problems involving addition and subtraction.**
Kris Serven via Virginia DOE	**Represent and solve problems involving addition and subtraction.**
Nicole Medina	Represent and interpret data.
Nicole Medina	Reason with shapes and their attributes.
Nicole Medina	Reason with shapes and their attributes.
Heidi Schnabel	Money
Nicole Medina	Money
Nicole Medina	**Measure lengths indirectly and by iterating length units.**
Nicole Medina	**Extend the counting sequence.**
Nicole Medina	**Extend the counting sequence.**
Faith Morrow - Lindale ISD	**Add and subtract within 20.**

Kris Serven via Virginia DOE	**Add and subtract within 20.**
Nicole Medina	**Full Year Resources**
Nicole Medina (shared by @mcqmath, created by educators from Saskatchewan, Canda)	**Full Year Resources**
Nicole Medina (created by Laura Dean)	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Abby Bates	**Full Year Resources**
Audrey Leppke	**Work with numbers 11-19 to gain foundations for place value.** **Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**

Audrey Leppke	**Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**
Audrey Leppke	**Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**
Audrey Leppke	**Identify and describe shares (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**
Audrey Leppke	**Identify and describe shares (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**
Audrey Leppke	**Describe and compare measureable attributes.**
Audrey Leppke	**Count to tell the number of objects.**
Audrey Leppke	**Count to tell the number of objects.**

	Count to tell the number of objects.
Audrey Leppke	**Compare numbers.**
Audrey Leppke	**Classify objects and count the number of objects in each category.**
Audrey Leppke	**Classify objects and count the number of objects in each category.**
Audrey Leppke	**Analyze, compare, create, and compose shapes.**
Bryce Boudreau	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**
Tammy McMorrow	**Full Year Resources**

Brianna Frerich

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Deborah Harper

Nathan Woodward

Jan Leslie

Brianna Frerich

Don Newman

Michelle Muggridge

Michelle Muggridge

Michelle Muggridge

Michelle Muggridge

Michelle Muggridge

Don Newman

Michelle Muggridge

Michelle Muggridge

Michelle Muggridge

Jamie Ballard

Michelle McLendon
notes layout included in slides

Angela Ratliff

Don Newman

Michelle Muggridge

Michelle Muggridge

Tessa Childers

Don Newman

Don Newman

Brianna Frerich

Todd Nelson

Brianna Frerich

Michelle Muggridge

Michelle Muggridge

Brianna Frerich

Jessica Geraci

Don Newman

Robert Kaplinsky / adapted by Terra Inman

Brianna Frerich

Michelle Muggridge

Barbra Steinhurst

Michelle Muggridge

Michelle Muggridge

Tessa Childers

Brianna Frerich

Don Newman

Christy Berman

Jessica Geraci

Amber Riel

Denise Russo

Tessa Childers

Sharon Soule

Dana Carie

Emily Latham

(@missmathology)

Nathan Woodward

Peter Anderson

Don Newman

Don Newman

Malia Heimbach

Tessa Childers

Don Newman

Don Newman

Don Newman

Jacqui Rhodes

Brianna Frerich

Johanna Batchelder

Andrea Owings

Andrea Owings

Ginny Enfield

Ginny Enfield

Don Newman

Barbra Steinhurst

Ginny Enfield

Don Newman

Mark Redstone

Don Newman

Cheryl Malcolm

Andrea Owings

Autumn Shuchart

Don Newman

Don Newman

Jessica Geraci

Don Newman

Étienne Perron

Tom Fisher

Adina R

Andrea Owings

Don Newman

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Lori Thomas

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Don Newman

Ginny Enfield

Kim Scott

Jessica Geraci

Don Newman

Don Newman

Don Newman

Sharon Soule

Brianna Frerich

Brianna Frerich

Don Newman

Katrina Misley

Don Newman

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Karen H. Collins

Don Newman

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Don Newman

Amanda Cloutier

Kristen Moore

Denise Russo

Michelle Muggridge

Tringle Witt

Todd Nelson

Kristen Moore
Martha Savaria

Farr Quinn

Todd Nelson

Todd Nelson

Don Newman

Todd Nelson

Don Newman

Jessica Geraci

Todd Nelson

Jessica Geraci

Tessa Childers

Farr Quinn

Mickie Gibbs

Dana Carie

Mickie Gibbs

Michelle Muggridge

	Don Newman
Mackenzie Campbell	Mackenzie Campbell
	Mickie Gibbs
	Todd Nelson
	Dana Carie
	Todd Nelson
	Tornes/Hawk/Kembitzky
	Tornes/Hawk
	Todd Nelson
	Tessa Childers
	Tessa Childers
	Abby Bates
	Alison Childers

Mark Redstone

Mark Redstone

Kimara Webb

Melony Letarte

Kristen moore

Kristen moore

Kristen moore

Rachel Spanneut

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Brianna Frerich

Brianna Frerich

Brianna Frerich

Katrina Misley

	Karen H. Collins
	Nate Woodward Jessica Geraci
	Jessica Geraci
	Neleigh Johnson
	Tessa Childers
	Dana Carie
	Dana Carie
	Dana Carie
Sarah Forst	Sarah Forst
	Jessica Geraci
	Jessica Geraci
	Monica Paredes

Mickie Gibbs

Deborah Harper

Todd Nelson

Todd Nelson

Todd Nelson

Todd Nelson

Todd Nelson

Todd Nelson

Carri Chesler

Don Newman

Don Newman

Kristen Moore

Brianna Frerich

Brianna Frerich

Jessica Geraci

Neleigh Johnson
Jessica Geraci

Don Newman
Susan Meisels
(Pineapple Sunset)

Abby Bates

Dana Carie

Linda Krajcik

Yuliya Milbeck

Pattie Brittan

Brandi Grimes

Anna Blinstein

Melissa Battis

Cory Loveless

Cory Loveless

Tessa Childers

Lisa Lee

Kristin Rokitowski

Heather Bergstedt

Logan Mavromatis

Kristin Rokitowski

Logan Mavromatis

Leslie Greer

Pattie Brittan

Tessa Childers

Tessa Childers

Tessa Childers

Megan Guidry

Leslie Greer

Heather Ochs

Heather Ochs

Logan Mavromatis

Deborah Harper

Melissa Battis

Logan Mavromatis

Tessa Childers

Kristina Barnaby

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Tessa Childers

Deborah Harper

Jen Theuret

Logan Mavromatis

Katie Bills

Amber Riel

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Logan Mavromatis

Janet Slesinski

Betsy Anderson

Katrina Misley

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Ellaina Willis

st • Activity Builder by D Amber Riel

Martin Cornejo Maldonado

Martin Cornejo Maldonado

Étienne Perron

Martin Cornejo

Martin Cornejo

Don Newman

Martin Cornejo

Don Newman

Ginny Enfield

Martin Cornejo

Don Newman

Connie Newman

Martin Cornejo

Don Newman

Don Newman

Don Newman

Don Newman

st • Activity Builder by D Amber Riel

Abby Bates

Don Newman

Todd Nelson

Shannon Jenks

Jennifer Gladbach
Amber Riel
Amber Riel

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Don Newman

Betsy Anderson

Todd Nelson

Todd Nelson
Amber Riel

Don Newman

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Ginny Enfield

Don Newman

Betsy Anderson

Todd Nelson

Todd Nelson

Elaine Kaiser
st • Activity Builder by D Amber Riel

Abby Bates

Abby Bates

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Betsy Anderson

Todd Nelson

Karen H. Collins

st • Activity Builder by D Amber Riel

Teacher created

Amber Riel

Don Newman

Don Newman

Karen H. Collins

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Allison Simon

Todd Nelson

Abby Bates

Todd Nelson

Abby Bates

Don Newman

Todd Nelson

Todd Nelson

Todd Nelson

Ellaina Willis
Ellaina Willis

Created by Abby Bates

Don Newman

Todd Nelson

Louis Lizima

Abby Bates

Amber Riel

Eric Houston

Betsy Anderson

Abby Bates

Don Newman

Don Newman

Don Newman

Don Newman

Don Newman

Sharon Soule

Dana Harrington (dharrington@wmrhsd.org)

2nd Grade Topic:	3rd Grade Topic:	4th Grade Topic:	5th Grade Topic:

Work with time and money.

Center and Variability) 7.SP

Center and Variability) 7.SP

Center and Variability) 7.SP

Center and Variability) 7.SP

Center and Variability) 7.SP

Center and Variability) 7.SP

Center and Variability) 7.SP

Measurement & Data

Numbers and Operatior

Multiply and divide within 100.

Represent and solve problems involving multiplication and division.
Represent and solve problems involving multiplication and division.
LCM
Numbers and Operatior
Comparing Decimals

6th Grade Topic:	7th Grade Topic	8th Grade Topic:	HS Algebra Topic:
		8.EE - Solving Inequalities	
		Connecting Proportional Relationships, Lines, a	
			Full Year Resources
			Functions- Intro & Key F

Solving Equations and I

Full Year Resources

Rational Functions

Full Year Resources

Exponential Functions

5.MD

Rational- Functions & C

Full Year Resources

Solving Equations & Pairs of Simultaneous Equ

Solving Equations & Pairs of Simultaneous Equ

Exponent Laws

Exponent Laws

Rational- Functions & C

Rational- Functions & C

Connecting Proportional Relationships, Lines, a

Polynomials- Functions

Unit Rates and Proportional Relationships 7.RP

Rational- Functions & C

Full Year Resources

Full Year Resources

Full Year Resources

ns - Fractions 5.NF

converting fractions, decimals, and percents

Solving Equations and I

Operations with Fractions and Decimals, Order of Operations, Exponents

Operations with Fractions and Decimals, Order of Operations, Exponents

Operations with Fractions and Decimals, Order of Operations, Exponents

Solving Equations & Pairs of Simultaneous Equ

ns - Fractions 5.NF

Polynomials- Functions

Equivalent Expressions Using Commutative and Associative Properties

HS Geometry Topic: HS Trigonmetry Topic: Precalculus Topic: CalculusTopic

Parallel and Perpendicular Lines

Coordinate Geometry

and Linear Equations 8.EE.B

Features

Coordinate Geometry

Parallel and Perpendicular Lines

Inequalities

Coordinate Geometry

Parallel and Perpendicular Lines

Circles (measurement and theorems)

Area, Surface Area, Volume

)perations

ıations 8.EE.C
ıations 8.EE.C

Area, Surface Area, Volume
Area, Surface Area, Volume
)perations
)perations

Integration

ınd Linear Equations 8.EE.B

& Operations

Circles (measurement and theorems)
)perations

Right Triangles and Trigonometry

Integration
Integration
Applications of Differen
Differentiation

Inequalities

Tools of Geometry

ıations 8.EE.C

& Operations

Probability Topic:

Helpful Resources

Type of Resource:	Short Description:
Rubric	Canva version of Amy E
Non-Curricular Task we	Stella's Stunners: Non-
Random Grouping	Visibly Random Group
Non-Curricular tasks K-	This is a curated list of

	Lables	Mild, medium and spicy
	Mild, Medium, and Spic	The CANVA template li
Full Year Resources		
	Website	Tasks by grade level
	Interview with Peter abo	Interview with Peter abo
tiation		
	Random Grouping	Random grouping cards
	Random Grouping	Random card sets for c
	Random Grouping	Randomizing Cards: up
	Random Grouping	Randomizing Group Po
	Random Grouping	Cricut Link: 24 cards +

Rubric Engagement Rubric - T

Exploring and understanding Data
Exploring relationships between variables

Link:	Author/Creator:	Added by:
https://www.canva.com	Amy Barry with Edits by	Anna Colaric
https://mathstunners.or	Nick Wilcox at nwilcox@	Kelli Statham
https://docs.google.com	Michael Freeman	Michael Freeman
https://www.dropbox.co	Various. Sources provid	Michael Pruner