2014 Indiana Math Standards
Grades 6-7-8
TRAINING FOR INDIANA EDUCATION SERVICE CENTERS

Important Statements by the Education Service Centers of Indiana

- This professional development was created to support teachers in their work with the *NEW* 2014 Indiana College and Career Readiness Standards. There is no indication herein that Common Core standards are addressed. Should participants find a reference to Common Core on any materials utilized in our trainings, it is merely because it is a valuable resource that *also* applies to the 2014 Indiana College and Career Readiness Standards and selected for use because it will be very helpful to you.

2

Important Statements by the Education Service Centers of Indiana (continued)

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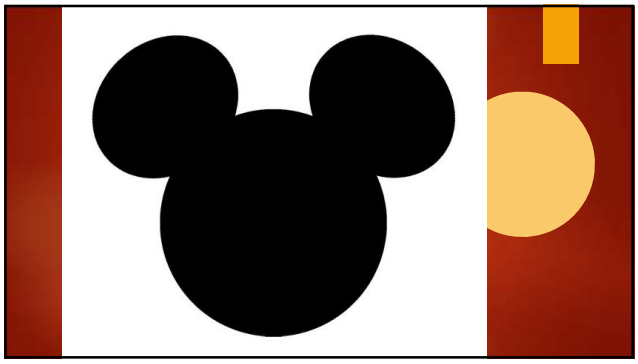
3

Introductions

Tell us about yourself ☺

- Name
- School you teach in
- Grade level you teach
- What's your favorite subject to teach?
- How long have you taught?
- What do you like to do for FUN?



Before We Begin…

- The 2014 IN Math Standards will take considerable time to learn. Though questions about the future of state testing, learning about the math process standards, and accountability are all great issues, our focus in this workshop is about **delving into the new content standards and the math process standards, developing rigorous tasks for our students,** and **developing a sequence map** based upon these new 2014 math standards for school year 2014-15.

A Rough Road Led to the 2014 IN Math Standards

- Politically driven (legislators mandated the process)
- A battle over who controls education (IDOE, State Board, legislators)
- Though Common Core appeared to be the major difference…local vs. state vs. federal control was the major difference
- Indiana is not out of the woods yet…many concerns about the NCLB waiver

What did the standards development process look like?

- Teams of teachers, curriculum directors, content specialists, and university professors pored over EVERY Indiana 2000 and 2009, Common Core, and NCTM math standard with one thought in mind, "Does this standard ensure students are college and career ready?"

9

- Teams (K-5 and 6-12) came together with the IDOE and CECI to narrow down the hundreds of standards into something manageable.
- The first version was inflated and messy. They were posted on the IDOE website and feedback flowed in.
- YOUR VOICES WERE HEARD LOUDLY AND CLEARLY!!

- Teams made changes based upon public feedback and input from the College and Career Readiness team (university and community partners).
- The final version was much more focused with vertical and horizontal articulation completed.

	First Version (March)	Third & Final Version (May)
Grade K	33	23
1st Grade	35	21
2nd Grade	41	27
3rd Grade	59	34
4th Grade	57	36
5th Grade	62	33
6th Grade	45	36
7th Grade	54	34
8th Grade	41	29

Goals for the Workshop

- Decompose the Indiana College and Career Readiness Standards within your grade level and grade band
- Decompose the Math Process Standards
- Develop rigorous tasks for each math strand
- Develop a curriculum sequence map based on the standards

13

What is College and Career Readiness in Indiana?

- Discuss in small groups what it means in your grade level and what it looks like in the classroom
- Report out

10 Minutes

14

Workshop Documents

- 2014 IN Math Standards (IDOE)
- Correlation Guide (IDOE)
- Resource Guide (IDOE)
- Vertical Articulation document (IDOE)
- Instructional and Assessment Guidance
- Sequencing Map
- Process standards posters
- Task analysis guide
- Depth of Knowledge Chart
- Activity two – creating a task

15

How and Where to Find These Documents

www.doe.in.gov

16

Time to Process the Documents

- Spend about 20 minutes looking at all five handouts for your grade level:
  - 2014 IN Math Standards
  - Vertical Articulation 6-7-8
  - Resource Guide
  - Correlation Guide
  - Instructional and Assessment Guidance

17

What Information Does Each Document Give Us?

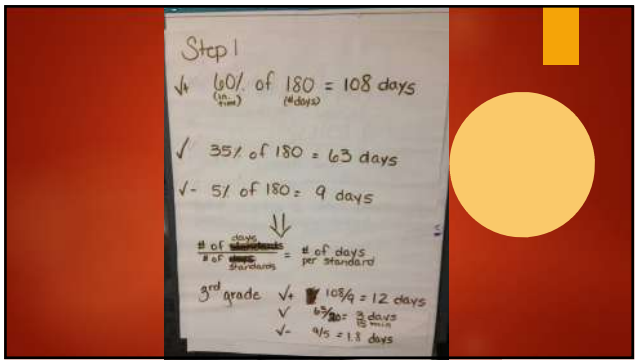
- Correlation Guide – connects the new IN standard with the past Common Core and IN 2000 standards
- Resource Guide – websites and examples to assist instruction
- Vertical Articulation – follows the strands across grade levels to develop an understanding of how the standards build upon previous skills

18

What Information Does Each Document Give Us? (cont)

- Instructional and Assessment Guidance– planning and prioritizing instructional time to ensure student success.

19



	Number of check plus = days for each	Number of check = days for each	Number of check minus= days for each
6th Grade	11 = 10 days each	19 = 3 1/3 days each	6 = 1 ½ days each
7th Grade	6 = 18 days each	20 = 3 days each	8 = 1 day each
8th Grade	4 = 27 days each	21 = 3 days each	4 = 2 ¼ days each

What the Standards are NOT

- They are NOT a curriculum.
- They do NOT define how a teacher should teach.
- They do NOT necessarily address students who are far below or far above grade level.
- They do NOT cover all aspects of what is necessary for college and career readiness.

Strands at a Glance

Math Standards by Strand Grades 6-7-8					
Grade	NS	C	AF	GM	DS
6th - (36 total)	10	6	10	6	4
7th - (34 total)	3	8	9	7	7
8th - (29 total)	4	2	8	9	6

Number Sense - NS
Computation - C
Algebraic & Functions - AF
Geometry & Measurement - GM
Data Analysis & Statistics - DS

23

Decomposing the Standards

Decomposing the Standards Activity

- There will be 5 Rounds
- Round 1: Number Sense
- Round 2: Computation
- Round 3: Algebra and Functions
- Round 4: Geometry and Measurement
- Round 5: Data Analysis and Statistics

25

Focus on Answering These Questions…

- What's new?
- What's going to be a challenge for students?
- What's going to be a challenge for teachers?
- What grade levels ask for "fluency" or mastery of skills?
- Follow the progression of skills across grade levels…how are they building upon one another?

Record your ideas on large chart paper

ISTEP+ 2014-15

- A new ISTEP+ assessment for school year 2014-15 that is College & Career Ready (grades 3-10 replacing ECAs with 10th grade GQE)
- Must be fully operational (not a pilot)
- **Indiana Department of Education Receives *No Child Left Behind* Waiver Extension Without Conditions**
- MUCH more rigorous than previous ISTEP+ assessments
- ISTEP+ will likely be a fixed form rather than computer adaptive
- Spring 2015 ISTEP+ WILL reflect the new standards and include technology-enhanced items (TEAs)
- Acuity will be modified to reflect the new standards
- State will NOT mandate assessments in K-2

27

Timeline

Test Blueprint	June 2014
Item Development	June-July 2014
Content Review	August 2014
Form Selection and Build	Fall 2014
Open-Ended Items	March 2-11, 2015
Multiple Choice	April 27 – May 16, 2015
Determine **a new Cut-Score**	Summer 2015

General Assessment Information Mathematics ISTEP+ Gr.3-8

Reference Sheet
- Separate Ref. Sheet for Gr.4-8
- Copy and print for students to use throughout the year
- No more Reference icon on the test (MP5)
- Formulas and conversions are no longer embedded in questions unless the information is needed and not contained in the Ref. Sheet

ISTEP+ CALCULATOR INFORMATION

- Gr.6-8: calculator allowed on Applied Skills Test and 1 session of the May Test
- Fluency items on ISTEP+ will not allow a calculator
- Calculator allowed if in student's IEP or 504 plan
- Scientific calculator recommended for Gr.6-8
  Gr.7-8 gain familiarity with pi button and writing rounded and exact answers
  Ex: What is the circumference of a circle with a diameter of 4.5 inches?
  Rounded to hundredths: 14.14 inches
  Exact answer: 4.5∏ inches

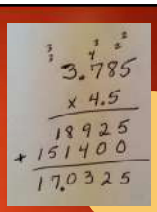
- Applied Skills Items
  Sample items available in September
  Rubrics available in September
- Technology Enhanced Items
  Practice session available in October

Grades 6 – 8 Applied Skills

Show all steps needed to solve the problems without showing lengthy computation work.

For example: If a problem requires a step of 3.785 times 4.5, then show:

- 3.785 • 4.5 = 17.0325



NOT necessary nor efficient!!

Grade 6 – Applied Skills

SOME of the content that may be assessed on the Applied Skills Assessment

- Rate, ratio, and percent problems
- Evaluating numerical expressions including evaluating the work of others (MP3)
- Writing expressions and equations (in 1 or 2 variables) including defining the variables

Grade 6 Clarifications

- Division computations: quotients with remainders written as a fraction, mixed number, or decimal, but NOT with "R" to represent the remainder
  Ex: 15,266/68 could be written as either 224.5, 224 ½, 224 34/68, 449/2, or equivalent values; but not as 224 R34
- Operations with integers is now in Gr.7
  Although the difference of #'s on a # line (including negative numbers) is in 6.NS.4
- Teach "x" and "•" as multiplication symbols
- 6.NS.10: Some examples: unit pricing, constant speed, percent problems, conversions within the same measurement system

Grade 7 – Applied Skills

SOME of the content that may be assessed on the Applied Skills Assessment

- Rate, ratio, and percent problems
- Applying the properties of operations to create equivalent linear expressions including evaluating the work of others (MP3)
- Writing equations (in 1 or 2 variables) including defining the variables
- Circumference and area of circle problems
- Volume of cylinder problems
- Surface Area (including nets) problems
- Use the Pi button on the calculator
  Not "use 3.14 for pi" as previously referenced

Grade 7 Clarifications

- 7.NS.1: Limit #'s to 200 or less
- 7.NS.2: Limit square roots to 144 or less
- 7.NS.3: Very basic introduction of irrational #'s (only include the numbers identified in the standard)
- 7.C.(1-4): More conceptual in nature – see Resource Guide
- Teach using the pi button and writing rounded and exact answers(7.GM.5-6)
  - What is the circumference of a circle with a diameter of 4.5 inches?
    - Rounded to hundredths: 14.14 inches
    - Exact answer: 4.5∏ inches

Grade 8 – Applied Skills

SOME of the content that may be assessed on the Applied Skills Assessment:

- Writing equations (in 1 or 2 variables) including defining the variables and interpreting the slope and y-intercept
- Justifying linear equations in one variable as having one solution, infinitely many solutions, or no solutions (MP3)
- Pythagorean Theorem problems
- Scatter plot problems

Grade 8 Clarifications

- 8.AF.3: When studying functions, include the terms independent and dependent variables, input and output values, x- and y-values
- 8.AF.4: Tasks should be qualitative in nature (See RG)
- 8.AF.5: Includes graphing a linear function, such as, $y = -2x - 4$
- Teach using the pi button and writing answers in terms of pi (8.GM.2)
- 8.GM.4-5: Tasks do not include coordinate geometry
- 8.GM.6: Tasks include coordinate geometry
- 8.DSP.3: Equations should be written using an informal approach – not using technology

Defining Variables

- Explicit in Standards: 5.AT.8 and 6.AF.3
- Implied in Standards: 6.AF.5, 6.AF.10, 7.AF.2, 7.AF.9, 8.AF.1, and 8.AF.6
- Example of previous ISTEP+ Item

  A parking lot has 24 rows. Each row has the same number of parking spaces. The parking lot has a total of 768 parking spaces. Write an equation that can be used to determine the number of parking spaces (p) in each row.

Attend to Precision

MP.6 Attend to Precision means precision in computations AND communication

Precise communication: Let p represent the number of parking spaces in each row

Not as precise: p is parking spaces

If the answer is 1/3, then leave as 1/3…NOT 0.33

Applied Skills Sample Items

The following Items are samples, designed to use with teachers, as part of professional development; and students, to familiarize them with items aligned to the college- and career-ready 2014 Indiana Academic Standards.

Math Grade 7 Constructed-Response

A student claims that 8x – 2(4 + 3x) is equivalent to 3x.
The student's steps are shown.
Expression: 8x – 2(4 + 3x)
Step 1: 8x – 8 + 3x
Step 2: 8x + 3x – 8
Step 3: 11x – 8
Step 4: 3x

Math constructed response items are worth 2 points

Part A
Describe ALL errors in the student's work.

_____

_____

Part B

If the errors in the student's work are corrected, what will be the final expression?

Show All Work

Expression _____

Exemplary Response:
In Step 1, the student did not apply the distributive property correctly. The student forgot to multiply -2 and 3x. In Step 4, the student should not have subtracted 8 from 11x because they are not like terms.
OR
Other valid descriptions of the errors

AND
2x – 8

Sample Process:
8x – 2(4 + 3x)
8x – 8 – 6x
2x – 8

Math Grade 6 Extended-Response

Lynn is baking 20 cakes. She needs blueberries, strawberries, and some other ingredients for her recipe.
-She needs 22 pounds of blueberries.
-She needs twice as many pounds of blueberries as she does strawberries.

Part A
Write an equation that can be used to determine the number of pounds of strawberries Lynn needs. Be sure to define the variable in your equation.

Define the variable

_____

Equation

_____

Math extended response items are worth 6 points

Part B

Lynn buys the blueberries for $3 per pound and the strawberries for $2 per pound.

What is the total cost of the blueberries and strawberries?

Show All Work

Answer $ _____

Part C

In addition to the cost of the berries, Lynn spends $52 on the other ingredients needed to make the 20 cakes.

Lynn wants to make $5 for each cake she sells, taking into account the amount she spends on ALL ingredients.

For how much should Lynn sell each cake in order to make $5 per cake? Use words, numbers, and/or symbols to justify your answer.

_____

_____

Exemplary Response:

p represents the number of pounds of strawberries Lynn needs
$2p = 22$

OR
Other valid equation and definition of the variable

AND

$88

AND

Lynn should sell each cake for $12.

Sample Process:
$2p = 22$
$P = 22/2$
$p = 11$

22 x $3 = $66
11 x $2 = $22
$66 + $22 = $88

$88 + $52 = $140
$140/20 = $7 per cake
$7 + $5 = $12
OR
Other valid process

Process Standards for Mathematics

IN Math Process Standards

- #1 …..Problem Solving-Persevere
- #2…..Reasoning
- #3…..Viable Argument ..Other Opinions
- #4…..Model Mathematics
- #5…..Use Tools
- #6…..Attend to Precision
- #7…..Structure
- #8…..Regularity and Repeated Reasoning

Check out classroom posters!

51

Process standards for mathematics are…

- the behaviors needed to be successful in math
- the processes used to apply content knowledge
- essential to embed into daily instruction
- opportunities that allow students to think and behave like mathematicians
- how students interact with math
- expected to be assessed regularly (including the ISTEP+ in 2014-15)

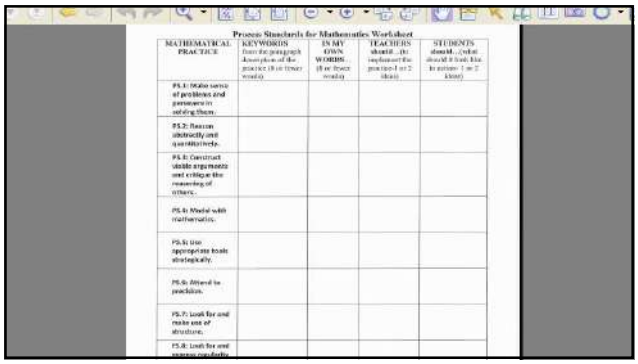
What process standards are NOT…

- They are NOT "problem solving Fridays."
- They are NOT enrichment for advanced students.
- They are the process of arriving at an answer, NOT the answer itself. (So important!)
- They are NOT assessed through a few word problems at the end of a test.

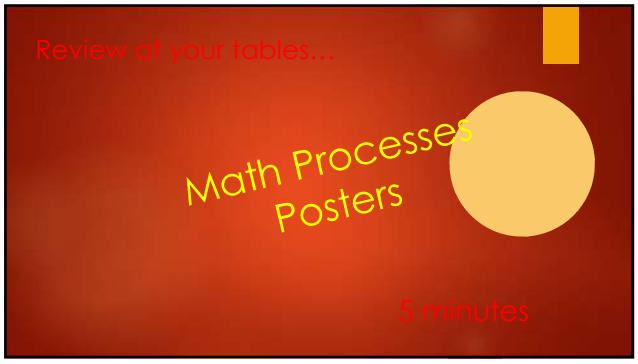
content, and the ways in which students should synthesize and apply mathematical skills.

PROCESS STANDARDS FOR MATHEMATICS	
PS.1: Make sense of problems and persevere in solving them.	Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway, rather than simply jumping into a solution attempt. They consider analogous problems and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" and "Is my answer reasonable?" They understand the approaches of others to solving complex problems and identify correspondences between different approaches. Mathematically proficient students understand how mathematical ideas interconnect and build on one another to produce a coherent whole.
PS.2: Reason abstractly and quantitatively.	Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.
PS.3: Construct viable arguments and critique the reasoning of others.	Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They analyze situations by breaking them into cases and recognize and use counterexamples. They organize their mathematical thinking, justify their conclusions and communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. They justify whether a given statement is true always, sometimes, or never. Mathematically proficient students participate and collaborate in a mathematics community. They listen to or read the arguments of others, decide whether they make

PS.4: Model with mathematics.	Mathematically proficient students apply the mathematics they know to solve problems arising in everyday life, society, and the workplace using a variety of appropriate strategies. They create and use a variety of representations to solve problems and to organize and communicate mathematical ideas. Mathematically proficient students apply what they know and are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.
PS.5: Use appropriate tools strategically.	Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Mathematically proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. Mathematically proficient students identify relevant external mathematical resources, such as digital content, and use them to pose or solve problems. They use technological tools to explore and deepen their understanding of concepts and to support the development of learning mathematics. They use technology to contribute to concept development, simulation, representation, reasoning, communication and problem solving.
PS.6: Attend to precision.	Mathematically proficient students communicate precisely to others. They use clear definitions, including correct mathematical language, in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They express solutions clearly and logically by using the appropriate mathematical terms and notation. They specify units of measure and label axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently and check the validity of their results in the context of the problem. They express numerical answers with a degree of precision appropriate for the problem context.
PS.7: Look for and make use of structure.	Mathematically proficient students look closely to discern a pattern or structure. They step back for an overview and shift perspective. They recognize and use properties of operations and equality. They organize and classify geometric shapes based on their attributes. They see expressions, equations, and geometric figures as single objects or as being composed of several objects.
PS.8: Look for and express regularity in repeated reasoning.	Mathematically proficient students notice if calculations are repeated and look for general methods and shortcuts. They notice regularity in mathematical problems and their work to create a rule or formula. Mathematically proficient students maintain oversight of the process, while attending to the details as they solve a problem. They continually evaluate the


Process Standards for Mathematics Worksheet

MATHEMATICAL PRACTICE	KEYWORDS (from the paragraph description of the practice (8 or fewer words))	IN MY OWN WORDS... (8 or fewer words)	TEACHERS should...(to implement the practice-1 or 2 ideas)	STUDENTS should...(what should it look like in action- 1 or 2 ideas)
PS.1: Make sense of problems and persevere in solving them.				
PS.2: Reason abstractly and quantitatively.				
PS.3: Construct viable arguments and critique the reasoning of others.				
PS.4: Model with mathematics.				
PS.5: Use appropriate tools strategically.				
PS.6: Attend to precision.				
PS.7: Look for and make use of structure.				
PS.8: Look for and express regularity				



"Math Class Needs a Makeover"

- TED Talk with Dan Meyer
- https://www.ted.com/talks/dc
  math_curriculum_makeover

What is rigor?

At your tables, have a discussion about what you believe rigor is and what it looks like in a math classroom.

Share ideas aloud and record…

Rigor is…	Rigor is NOT…

Then…
Read the "What's All This Talk About Rigor?" article.
Share how your viewpoint may have changed or something you learned.

Instructional rigor in the past…

Thinking about procedural skill ONLY

(Can they complete the steps?)

Instructional rigor with the 2014 math standards…

- Procedural Skill & Fluency
- Conceptual Understanding
- Application & Modeling

Fluency Expectations Across Grade Levels

(remember that students may/will work with higher numbers…these are just FLUENCY expectations)

- Kindergarten – add and subtract within 5
- 1st grade – add and subtract within 10
- 2nd grade – add and subtract within 20 and 100
- 3rd grade – multiply/divide within 100; add/subtract within 1,000
- 4th grade – add/subtract multi-digit numbers
- 5th grade – multiply multi-digit numbers
- 6th grade – divide multi-digit numbers; operations with decimals; interpret and compute fractions
- 7th grade – computing rational numbers
- 8th grade – linear equations

But what is fluency?

- efficient and accurate
- flexible thinking beyond the standard algorithm
- entails reasoning and sense making
- more than computation…there is understanding attached

(Notice the words "fast" or "quickly" are NOT in this definition)

What is conceptual understanding?

Students demonstrate conceptual understanding when they…

- Provide evidence
- Generate examples
- Can represent content in multiple ways (including drawings, models, manipulatives, etc.)
- Identify and apply principles
- Know and apply definitions
- Relate concepts to other concepts

Application in a Math Classroom

Students are able to show their conceptual understanding through effective investigative tasks.

- Word problems
- Real-world problems
- Modeling/drawing
- Verbal communication/discussion
- PrBL/PBL units

Posing Purposeful Questions

Effective teaching of mathematics uses purposeful questions to assess and advance students' reasoning and sense making about important mathematical ideas and relationships.

Four Types of Questions

1. Gathering Information
2. Probing Thinking
3. Making the mathematics visible
4. Encouraging reflection and justification

Posing Purposeful Questions

Question type	Description	Examples
Gathering information	Students recall facts, definitions, or procedures.	• When you write an equation, what does the equal sign tell you? • What is the formula for finding the area of a rectangle?
Probing thinking	Students explain, elaborate, or clarify their thinking, including articulating the steps in solution methods or the completion of a task.	• As you drew that number line, what decisions did you make so that you could represent 7 fourths on it? • Can you show and explain more about how you used a table to find the answer to the Smartphone Plans task?

Effective Teaching and Learning. (2014). In *Principles to Actions: Ensuring mathematical success for all* (p. 36). Reston, VA: NCTM.

Posing Purposeful Questions

Question type	Description	Examples
Making the mathematics visible	Students discuss mathematical structures and make connections among mathematical ideas and relationships.	▪ What does your equation have to do with the band concert situation? ▪ How does that array relate to multiplication and division?
Encouraging reflection and justification	Students reveal deeper understanding of their reasoning and actions, including making an argument for the validity of their work.	• How might you prove that 51 is the solution? • How do you know that the sum of two odd numbers will always be even?

Effective Teaching and Learning. (2014). *In Principles to Actions: Ensuring mathematical success for all* (p. 37). Reston, VA: NCTM.

Depth of Knowledge (DOK) Levels

Depth of Knowledge (DOK) Activities

Level One Activities	Level Two Activities	Level Three Activities	Level Four Activities
Recall elements and details of story structure, such as sequence of events, character, plot and setting. Conduct basic mathematical calculations. Label locations on a map. Represent in words or diagrams a scientific concept or relationship. Perform routine procedures like measuring length or using punctuation marks correctly. Describe the features of a place or people.	Identify and summarize the major events in a narrative. Use context cues to identify the meaning of unfamiliar words. Solve routine multiple-step problems. Describe the cause/effect of a particular event. Identify patterns in events or behavior. Formulate a routine problem given data and conditions. Organize, represent and interpret data.	Support ideas with details and examples. Use voice appropriate to the purpose and audience. Identify research questions and design investigations for a scientific problem. Develop a scientific model for a complex situation. Determine the author's purpose and describe how it affects the interpretation of a reading selection. Apply a concept in other contexts.	Conduct a project that requires specifying a problem, designing and conducting an experiment, analyzing its data, and reporting results/ solutions. Apply mathematical model to illuminate a problem or situation. Analyze and synthesize information from multiple sources. Describe and illustrate how common themes are found across texts from different cultures. Design a mathematical model to inform and solve a practical or abstract situation.

The task is the key!

Each participant will spend a few minutes reading the task analysis guide.

- Have a discussion at your table, "Which category do the majority of your classroom tasks fall?"
- Take out your teacher materials and work with others at your table to identify one task in each category (possibly from your textbook). If you don't see one, how would you change a current problem to make it more rigorous?

20 Minutes

1.5 Hours of Collaboration Time

Task Activity

- Remain in grade level teams (4-5 people)
- Focus on ONE standard in EACH strand and create a task (one per group) using your teacher resources, task analysis guide, and IDOE resource guide
- Challenge!! Can you identify 1-2 math process standards imbedded in your tasks?

Last but Not Least…
Create a Sequencing Map to TAKE BACK

- Work with others in your grade level
- Arrange your standards strips in the best order for student learning
- Record the sequence on the form provided

http://www.ccsstoolbox.com/

http://www.isbe.state.il.us/common_core/htmls/math-models.htm


Closing Video: The Lost Generation
https://www.youtube.com/watch?v=42E2fAWM6rA
77