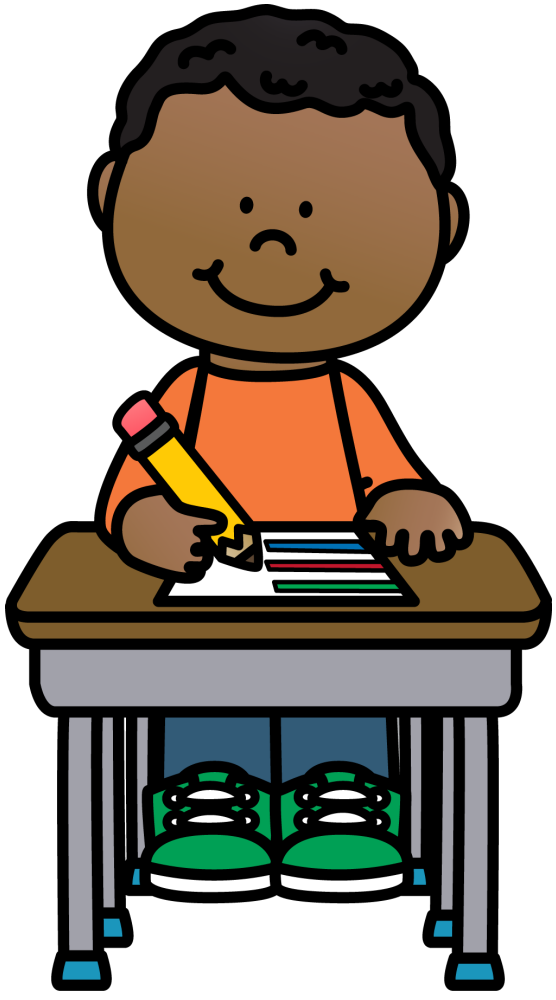
Grade 2
Illustrative Math



Math Centers Stage by Stage

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Let's Connect!

Write Numbers

Stage 4: Skip Count by 2, 5, and 10

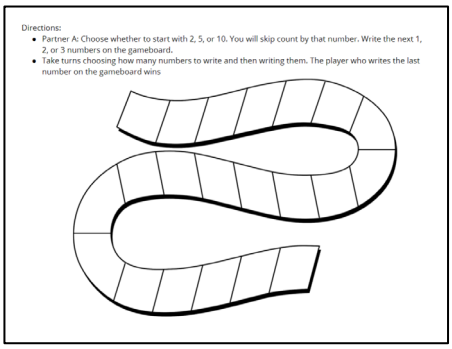
Task statement

Students take turns writing the next 1, 2, or 3 numbers in the sequence. The player who writes the last number on the number path wins.

Students choose to start with 2, 5, or 10. They skip count by that number.

Required materials

- Dry erase markers
- Sheet protectors
- Write the Number Stage 4 Gameboard



Get Your Numbers in Order

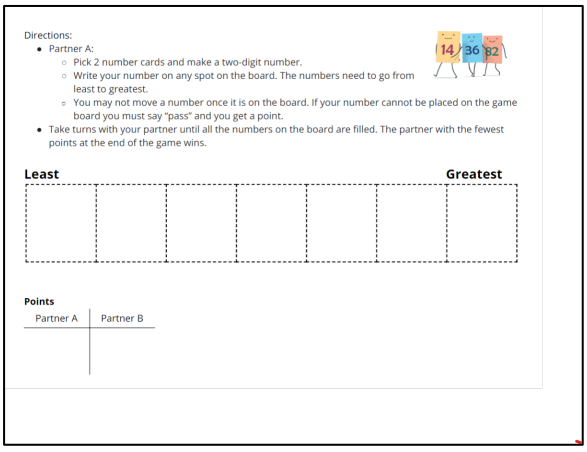
Stage 1: Two-digit Numbers

Task statement

Students remove the cards that show 10 before they start. Then they choose two number cards and make a two-digit number. Students write their number in any space on the board, as long as the numbers from left to right go from least to greatest. If students cannot place their number, they get a point. The player with the fewest points when the board is filled in the winner.

Required materials

- Dry erase markers
- Number cards 0-10
- Sheet protectors
- Get Your Numbers in Order Gameboard


Directions:

- Partner A:
  - Pick 2 number cards and make a two-digit number.
  - Write your number on any spot on the board. The numbers need to go from least to greatest.
  - You may not move a number once it is on the board. If your number cannot be placed on the game board you must say "pass" and you get a point.
- Take turns with your partner until all the numbers on the board are filled. The partner with the fewest points at the end of the game wins.

14 36 82

Least Greatest

Points

Partner A	Partner B

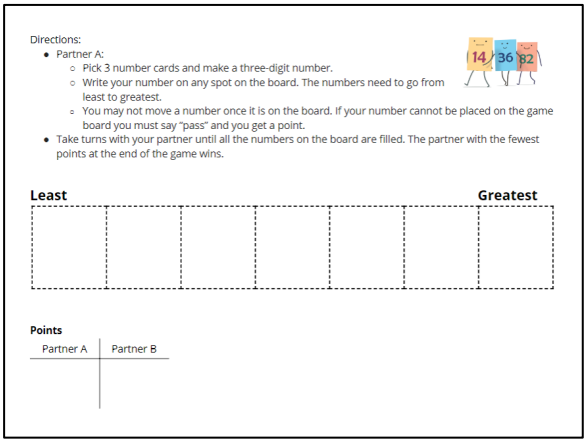
Stage 2: Three-digit Numbers

Task statement

Students remove the cards that show 10 before they start. Then they choose three number cards and make a three-digit number. Students write their number in any space on the board, as long as the numbers from left to right go from least to greatest. If students cannot place their number, they get a point. The player with the fewest points when the board is filled in the winner.

Required materials

- Dry erase markers
- Number cards 0-10
- Sheet protectors
- Get Your Numbers in Order Gameboard


Directions:

- Partner A:
  - Pick 3 number cards and make a three-digit number.
  - Write your number on any spot on the board. The numbers need to go from least to greatest.
  - You may not move a number once it is on the board. If your number cannot be placed on the game board you must say "pass" and you get a point.
- Take turns with your partner until all the numbers on the board are filled. The partner with the fewest points at the end of the game wins.

14 36 82

Least Greatest

Points

Partner A	Partner B

Greatest of them All

Stage 1: Two-digit Numbers

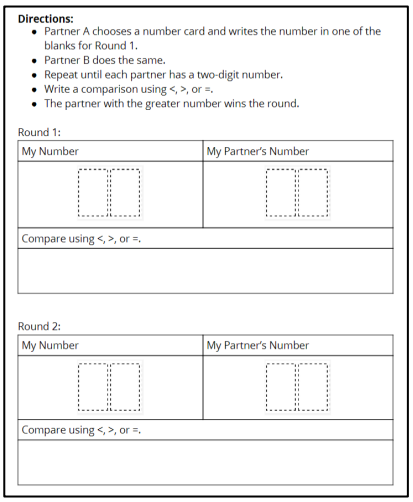
Task statement

Students use digit cards to create the greatest possible number. As each student draws a card, they choose where to write it on the recording sheet. Once a digit is placed, it can't be moved. Students compare their numbers using >, <, or =. The player with the greater number in each round gets a point.

Students should remove cards that show 10 from their deck.

Required materials

•Number Cards 0-9
•Greatest of them All Recording Sheet



Directions:

- Partner A chooses a number card and writes the number in one of the blanks for Round 1.
- Partner B does the same.
- Repeat until each partner has a two-digit number.
- Write a comparison using <, >, or =.
- The partner with the greater number wins the round.

Round 1:

My Number	My Partner's Number
Compare using <, >, or =.	

Round 2:

My Number	My Partner's Number
Compare using <, >, or =.	

Stage 2: Three-digit Numbers

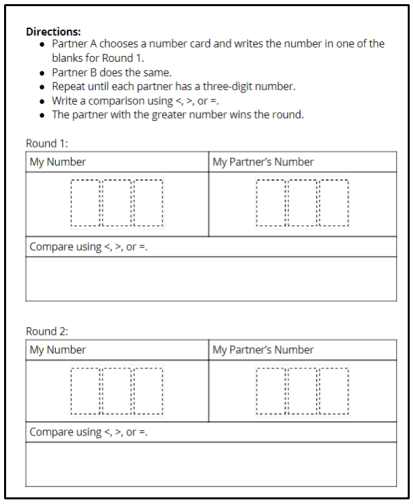
Task statement

Students use digit cards to create the greatest possible number. As each student draws a card, they choose where to write it on the recording sheet. Once a digit is placed, it can't be moved. Students compare their numbers using >, <, or =. The player with the greater number in each round gets a point.

Students should remove cards that show 10 from their deck.

Required materials

•Number Cards 0-9
•Greatest of them All Recording Sheet



Directions:

- Partner A chooses a number card and writes the number in one of the blanks for Round 1.
- Partner B does the same.
- Repeat until each partner has a three-digit number.
- Write a comparison using <, >, or =.
- The partner with the greater number wins the round.

Round 1:

My Number	My Partner's Number
Compare using <, >, or =.	

Round 2:

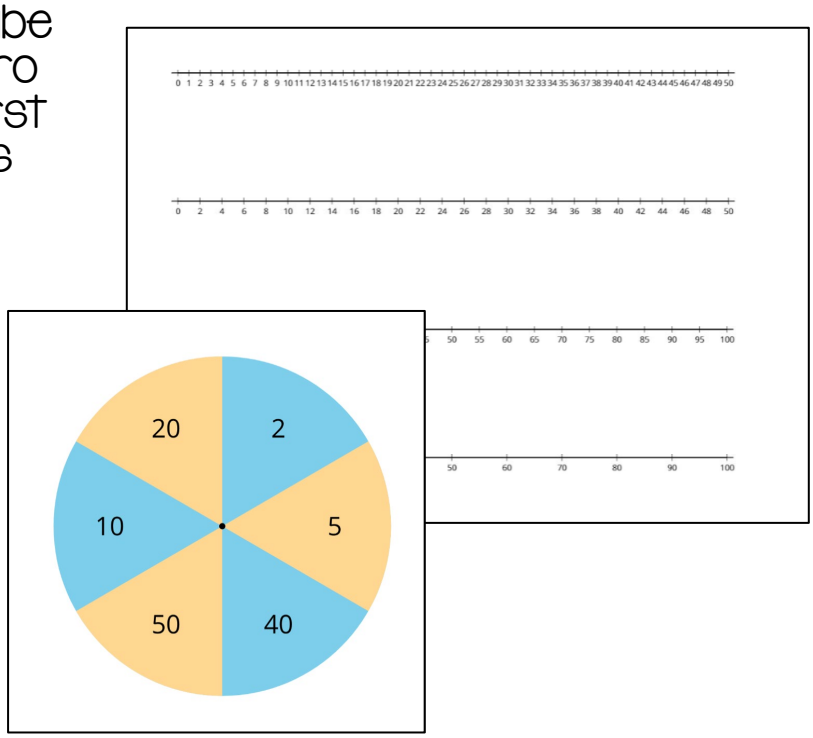
My Number	My Partner's Number
Compare using <, >, or =.	

Number Line Scoot

Stage 1

Task statement

Students take turns spinning a spinner and moving their cube that interval on one of the shared number lines. Students may use their whole spin on one number line or split it between multiple number lines. Each time a cube lands exactly on the last tick mark of one of the number lines, the player who moved it keeps the cube and puts a new cube on zero on that number line. The first player to collect five cubes wins.



Required materials

- 12 Centimeter cubes
- Paper clips
- Numberline Spinner
- Scoot Gameboard

Mystery Number

Stage 1: Two-digit Numbers

Task statement
Each student has a mystery number. They give clues to their partner based on sentence stems or vocabulary words. After each clue, the partner guesses the mystery number. Players earn points based on how many clues they need to identify the mystery number. The player with the lowest score after five rounds wins.

In stage 1, students pick two cards and make a mystery two-digit number. Students give clues based on the sentence starters.

Required materials
•Number Cards 0-10

1	2
3	4
5	6

Stage 2: Three-digit Numbers

Task statement
Each student has a mystery number. They give clues to their partner based on sentence stems or vocabulary words. After each clue, the partner guesses the mystery number. Players earn points based on how many clues they need to identify the mystery number. The player with the lowest score after five rounds wins.

In stage 2, students pick three cards and make a mystery three number. Students give clues based on the sentence starters.

Required materials
•Number Cards 0-10

1	2
3	4
5	6

What's Behind My Back?

Stage 2: 10 Cubes

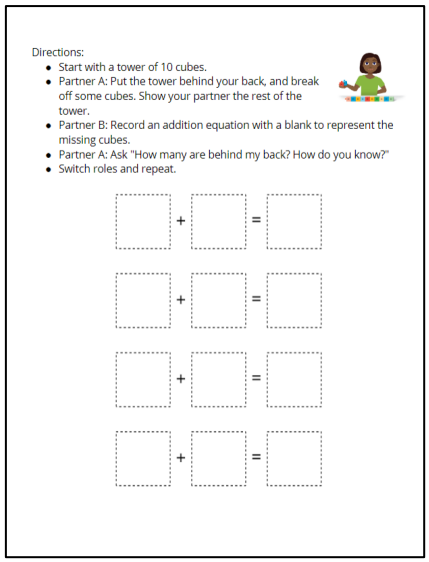
Task statement

Students work with 10 cubes. One partner snaps the tower and puts one part behind their back and shows the other part to their partner. Their partner figures out how many cubes are behind their back.

This stage has two different recording sheets, one for kindergarten and another for grade 1. Be sure to use the appropriate recording sheet with students.

Required materials

- 10-frames
- Connecting cubes


Directions:

- Start with a tower of 10 cubes.
- Partner A: Put the tower behind your back, and break off some cubes. Show your partner the rest of the tower.
- Partner B: Record an addition equation with a blank to represent the missing cubes.
- Partner A: Ask "How many are behind my back? How do you know?"
- Switch roles and repeat.

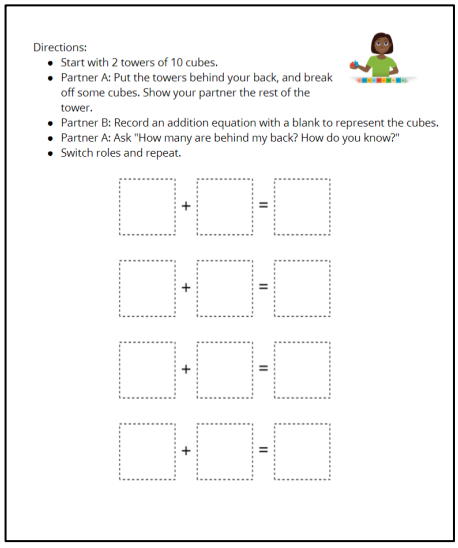
Stage 3: 20 Cubes

Task statement

Students work with 20 cubes, organized into two towers of 10 cubes. One partner snaps the towers and puts one part behind their back and shows the other part to their partner. Their partner figures out how many cubes are behind their back. Students record an addition equation with a blank to represent the missing cubes.

Required materials

- Each group of 2 needs 20 connecting cubes
- What's Behind My Back? 20 Cubes Recording Sheet


Directions:

- Start with 2 towers of 10 cubes.
- Partner A: Put the towers behind your back, and break off some cubes. Show your partner the rest of the tower.
- Partner B: Record an addition equation with a blank to represent the cubes.
- Partner A: Ask "How many are behind my back? How do you know?"
- Switch roles and repeat.

Shake and Spill

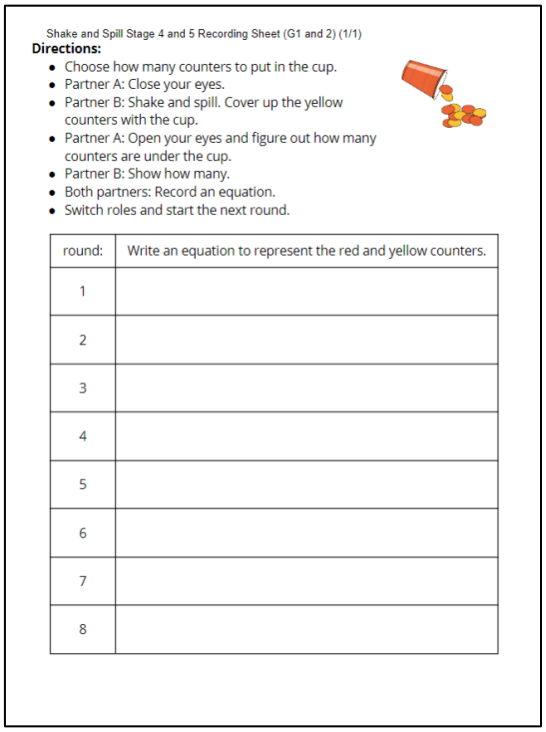
Stage 5: Cover (up to 20)

Task statement

Students decide together how many counters, between 11-20, to use. Partner A closes their eyes while Partner B shakes, spills, and covers up the yellow counters with a cup. Partner A determines how many counters are under the cup and explains how they know. Both partners record the round. Switch roles and repeat.

Required materials

- Each group of 2 needs a cup and 10 two-color counters.
- 5-frames
- Cups
- Shake and Spill Recording Sheet



Shake and Spill Stage 4 and 5 Recording Sheet (G1 and 2) (1/1)

Directions:

- Choose how many counters to put in the cup.
- Partner A: Close your eyes.
- Partner B: Shake and spill. Cover up the yellow counters with the cup.
- Partner A: Open your eyes and figure out how many counters are under the cup.
- Partner B: Show how many.
- Both partners: Record an equation.
- Switch roles and start the next round.

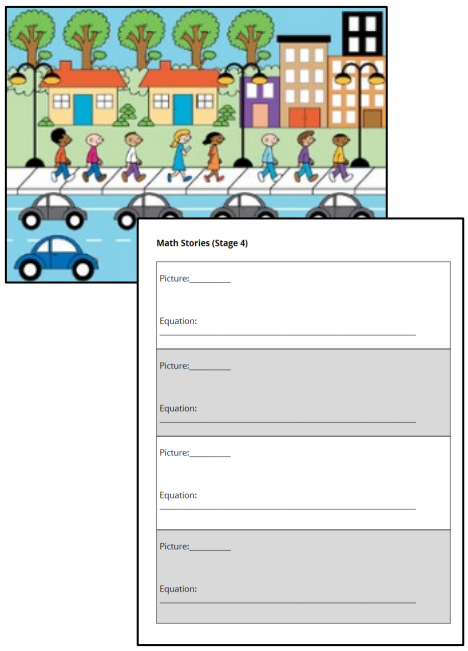
round:	Write an equation to represent the red and yellow counters.
1	
2	
3	
4	
5	
6	
7	
8	

Math Stories

Stage 4: Add and Subtract

Task statement
Students pose and solve addition and subtraction story problems about pictures. Students write an equation to represent their story problem.

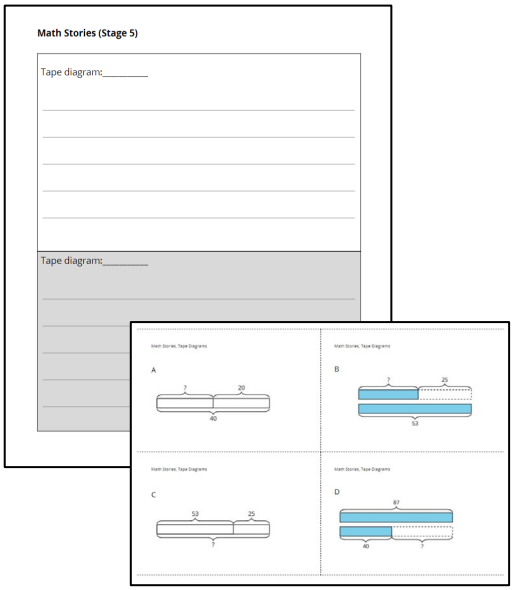
Required materials
•Math Stories, stage 4 recording sheet
•Math Stories pictures



Stage 5: Tape Diagrams

Task statement
Students pose and solve addition and subtraction story problems about tape diagrams.

Required materials
•Math Stories, stage 5, recording sheet
•Math Stories, stage 5, tape diagrams

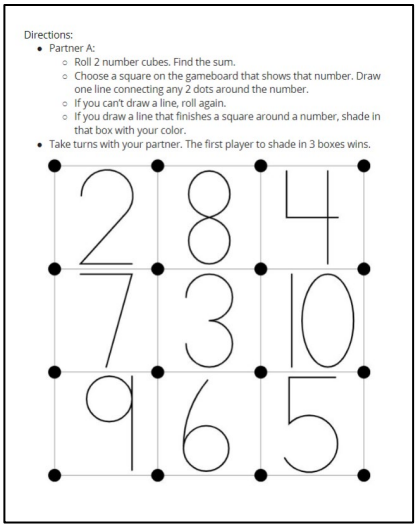


Capture Squares

Stage 1: Add within 10

Task statement
Students roll two number cubes and find the sum.

Required materials
•Each group of 2 needs two number cubes.
•Colored pencils or crayons
•Capture Squares Gameboard

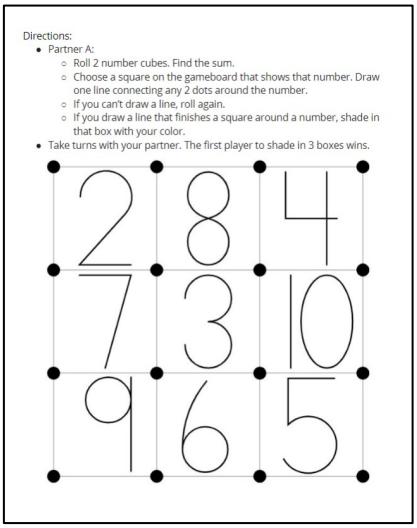

Directions:
- Partner A:
  - Roll 2 number cubes. Find the sum.
  - Choose a square on the gameboard that shows that number. Draw one line connecting any 2 dots around the number.
  - If you can't draw a line, roll again.
  - If you draw a line that finishes a square around a number, shade in that box with your color.
- Take turns with your partner. The first player to shade in 3 boxes wins.

2 8 4
7 3 10
9 6 5

Stage 2: Subtract within 10

Task statement
Students choose two cards and find the difference.

Required materials
•Colored pencils or crayons
•Number cards 0-10
•Capture Squares, stage 2, gameboard


Directions:
- Partner A:
  - Roll 2 number cubes. Find the sum.
  - Choose a square on the gameboard that shows that number. Draw one line connecting any 2 dots around the number.
  - If you can't draw a line, roll again.
  - If you draw a line that finishes a square around a number, shade in that box with your color.
- Take turns with your partner. The first player to shade in 3 boxes wins.

2 8 4
7 3 10
9 6 5

Capture Squares

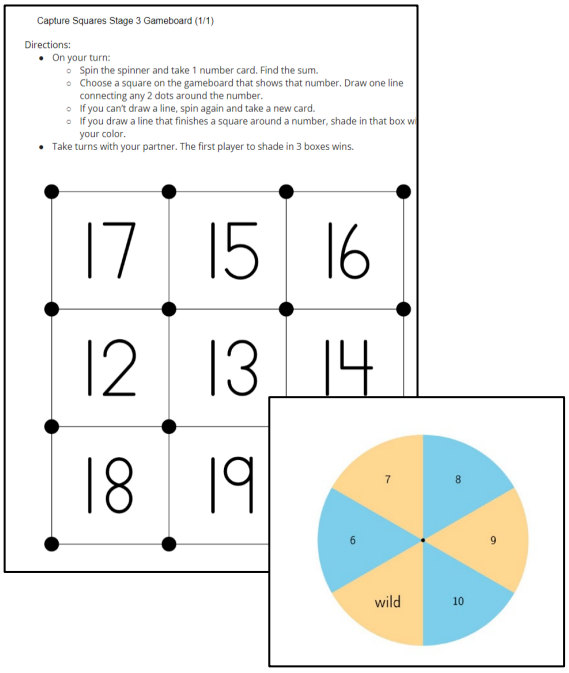
Stage 3: Add within 20

Task statement

Students spin to get a number (6-10) and flip a card (0-10) and find the sum. The spinner includes a wild space where students can choose their own number.

Required materials

- Colored pencils or crayons
- Number cards 0-10
- Paper clips
- Capture Squares, stage 3, spinner
- Capture Squares gameboard



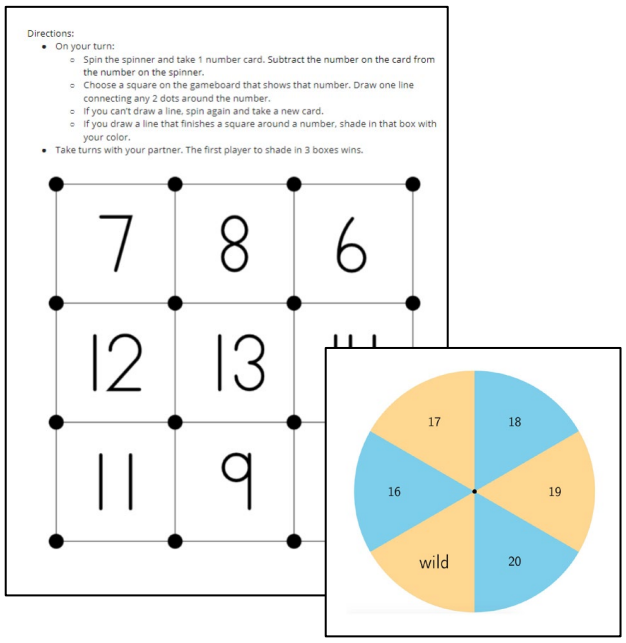
Stage 4: Subtract within 20

Task statement

Students spin to get a number (16-20) and flip a card (0-10). They subtract the number on the card from the number on the spinner. The spinner includes a wild space where students can choose their own number.

Required materials

- Colored pencils or crayons
- Number cards 0-10
- Paper clips
- Capture Squares, stage 4, spinner
- Capture Squares gameboard



Target Numbers

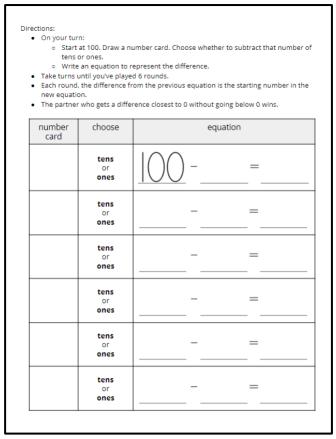
Stage 4: Subtract Tens or Ones

Task statement

Students subtract tens or ones to get as close to 0 as possible. Students start their first equation with 100 and then take turns flipping a number card and choosing whether to subtract that number of tens or ones and write an equation. The difference becomes the first number in the next equation. The player who gets closest to 0 in 6 rounds, without going below 0, is the winner.

Required materials

- Base-ten blocks
- Number cards 0-10
- Target Numbers Recording Sheet



Directions:

- On your turn:
  - Start at 100. Draw a number card. Choose whether to subtract that number of tens or ones.
  - Write an equation to represent the difference.
- Take turns until you've played 6 rounds.
- Each round, the difference from the previous equation is the starting number in the new equation.
- The partner who gets a difference closest to 0 without going below 0 wins.

number card	choose	equation
	tens or ones	100 – ___ = ___
	tens or ones	___ – ___ = ___
	tens or ones	___ – ___ = ___
	tens or ones	___ – ___ = ___
	tens or ones	___ – ___ = ___
	tens or ones	___ – ___ = ___

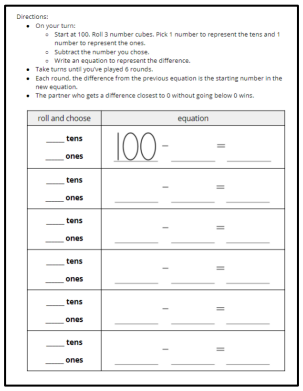
Stage 5: Subtract 2-digit Numbers

Task statement

Students subtract two-digit numbers to get as close to 0 as possible. Students start their first equation with 100. Then, they take turns rolling the three cubes to get a number to subtract. They choose one of the numbers on the cubes to represent the tens and the other number to represent the ones. Students subtract their tens and ones from the starting number. The difference becomes the first number in the next equation. The player who gets closest to 0 in 6 rounds, without going below 0, is the winner.

Required materials

- Base-ten blocks
- Number cubes
- Target Numbers Recording Sheet



Directions:

- On your turn:
  - Start at 100. Roll 3 number cubes. Pick 1 number to represent the tens and 1 number to represent the ones.
  - Subtract the number you chose.
  - Write an equation to represent the difference.
- Take turns until you've played 6 rounds.
- Each round, the difference from the previous equation is the starting number in the new equation.
- The partner who gets a difference closest to 0 without going below 0 wins.

roll and choose	equation
___ tens ___ ones	100 – ___ = ___
___ tens ___ ones	___ – ___ = ___
___ tens ___ ones	___ – ___ = ___
___ tens ___ ones	___ – ___ = ___
___ tens ___ ones	___ – ___ = ___
___ tens ___ ones	___ – ___ = ___

Target Numbers

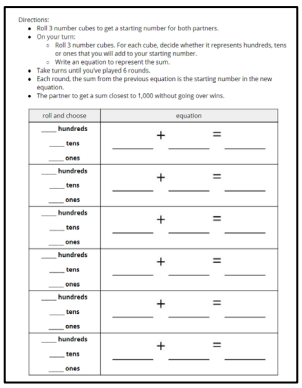
Stage 6: Add Hundreds, Tens, or Ones

Task statement

Students add hundreds, tens, and ones to get as close to 1,000 as possible. Students start by rolling three number cubes to get a starting number. Then, they take turns rolling the three cubes to create a number to add. For each number they roll, they choose whether they want it to represent hundreds, tens, or ones. Students add their hundreds, tens, and ones to the starting number. The sum becomes the first addend in the next round. The player who gets closest to 1,000 in 6 rounds, without going over, is the winner.

Required materials

- Number cubes
- Target Numbers Recording Sheet



Directions:

- Roll 3 number cubes to get a starting number for both partners.
- On your turn:
  - Roll 3 number cubes. For each cube, decide whether it represents hundreds, tens or ones that you will add to your starting number.
  - Write an equation to represent the sum.
- Take turns until you've played 6 rounds.
- Each round, the sum from the previous equation is the starting number in the new equation.
- The partner to get a sum closest to 1,000 without going over wins.

roll and choose	equation
___ hundreds ___ tens ___ ones	_____ + _____ = _____
___ hundreds ___ tens ___ ones	_____ + _____ = _____
___ hundreds ___ tens ___ ones	_____ + _____ = _____
___ hundreds ___ tens ___ ones	_____ + _____ = _____
___ hundreds ___ tens ___ ones	_____ + _____ = _____
___ hundreds ___ tens ___ ones	_____ + _____ = _____

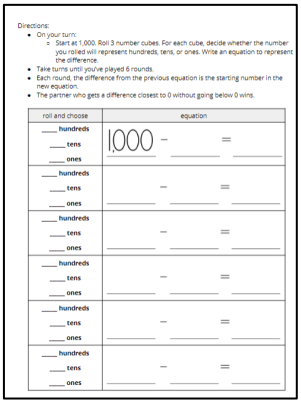
Stage 7: Subtract Hundreds, Tens, or Ones

Task statement

Students subtract hundreds, tens, and ones to get as close to 0 as possible. Students start their first equation with 1,000 and take turns rolling three cubes to get a number to subtract. For each number they roll, they choose whether they want it to represent hundreds, tens, or ones. Students subtract their hundreds, tens, and ones from the starting number. The difference becomes the first number in the next equation. The player who gets closest to 0 in 6 rounds, without going below 0, is the winner.

Required materials

- Number Cubes
- Target Number Recording Sheet



Directions:

- On your turn:
  - Start at 1,000. Roll 3 number cubes. For each cube, decide whether the number you rolled will represent hundreds, tens, or ones. Write an equation to represent the difference.
- Take turns until you've played 6 rounds.
- Each round, the difference from the previous equation is the starting number in the new equation.
- The partner who gets a difference closest to 0 without going below 0 wins.

roll and choose	equation
___ hundreds ___ tens ___ ones	1,000 – _____ = _____
___ hundreds ___ tens ___ ones	_____ – _____ = _____
___ hundreds ___ tens ___ ones	_____ – _____ = _____
___ hundreds ___ tens ___ ones	_____ – _____ = _____
___ hundreds ___ tens ___ ones	_____ – _____ = _____
___ hundreds ___ tens ___ ones	_____ – _____ = _____

How Close?

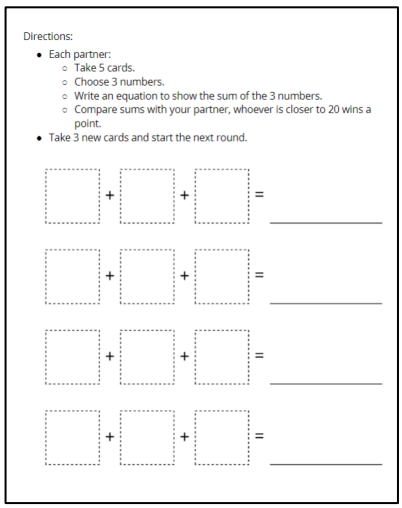
Stage 1: Add to 20

Task statement

Each student picks 5 cards and chooses 3 of them to write an addition expression with 3 addends.
The student whose sum is closest to 20 wins a point for the round.
Students pick new cards so that they have 5 cards in their hand and then start the next round.

Required materials

•Number Cards 0-10
•How Close? Recording Sheet


Directions:

- Each partner:
  - Take 5 cards.
  - Choose 3 numbers.
  - Write an equation to show the sum of the 3 numbers.
  - Compare sums with your partner, whoever is closer to 20 wins a point.
- Take 3 new cards and start the next round.

☐ + ☐ + ☐ = _____

☐ + ☐ + ☐ = _____

☐ + ☐ + ☐ = _____

☐ + ☐ + ☐ = _____

Stage 2: Subtract from 20

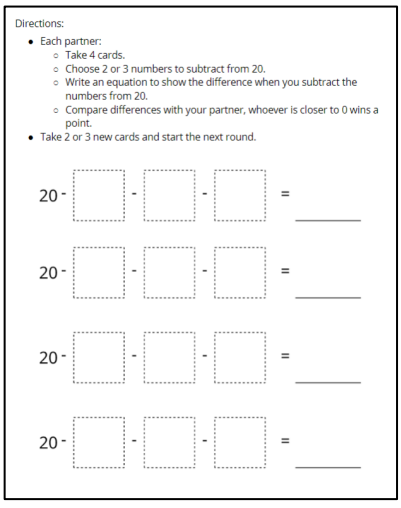
Task statement

Before playing, students remove the cards that show the number 10 and set them aside.

Each student picks 4 cards and chooses 2 or 3 to subtract from 20 to get close to 0.
The student whose difference is closest to 0 wins a point for the round.
Students pick new cards so that they have 4 cards in their hand and then start the next round.

Required materials

•Number Cards 0-9
•How Close? Recording Sheet


Directions:

- Each partner:
  - Take 4 cards.
  - Choose 2 or 3 numbers to subtract from 20.
  - Write an equation to show the difference when you subtract the numbers from 20.
  - Compare differences with your partner, whoever is closer to 0 wins a point.
- Take 2 or 3 new cards and start the next round.

20 - ☐ - ☐ - ☐ = _____

20 - ☐ - ☐ - ☐ = _____

20 - ☐ - ☐ - ☐ = _____

20 - ☐ - ☐ - ☐ = _____

How Close?

Stage 3: Add to 100

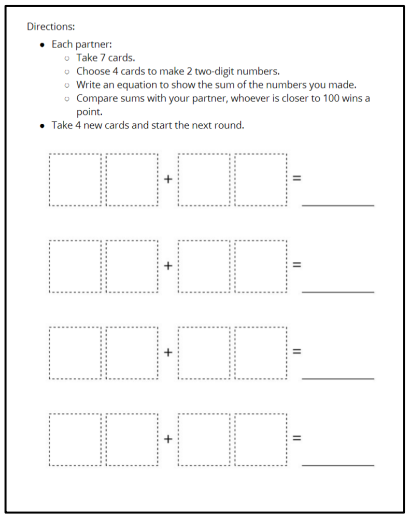
Task statement

Before playing, students remove the cards that show the number 10 and set them aside.

Each student picks 7 cards and chooses 4 of them to create 2 two-digit numbers.
Each student adds the numbers and the student whose sum is closest to 100 wins a point for the round.
Students pick new cards so that they have 7 cards in their hand and then start the next round. start the next round.

Required materials

•Number Cards 0-10
•How Close? Recording Sheet



Directions:

- Each partner:
  - Take 7 cards.
  - Choose 4 cards to make 2 two-digit numbers.
  - Write an equation to show the sum of the numbers you made.
  - Compare sums with your partner, whoever is closer to 100 wins a point.
- Take 4 new cards and start the next round.

□□ + □□ = _____

□□ + □□ = _____

□□ + □□ = _____

□□ + □□ = _____

Stage 4: Add to 1,000

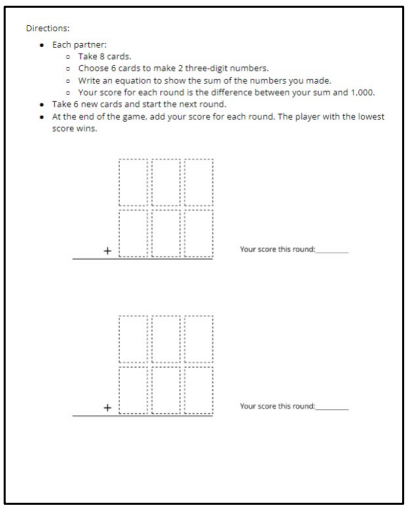
Task statement

Before playing, students remove the cards that show 10 and set them aside.

Each student picks 8 cards and chooses 6 of them to create 2 three-digit numbers.
Each student adds the numbers.
The score for the round is the difference between each student's sum and 1,000.
Students pick new cards so that they have 8 cards in their hand and then start the next round.
The player with the lowest score wins.

Required materials

•Number Cards 0-9
•How Close? Recording Sheet



Directions:

- Each partner:
  - Take 8 cards.
  - Choose 6 cards to make 2 three-digit numbers.
  - Write an equation to show the sum of the numbers you made.
  - Your score for each round is the difference between your sum and 1,000.
- Take 6 new cards and start the next round.
- At the end of the game, add your score for each round. The player with the lowest score wins.

□□□ + □□□ _____ Your score this round:_____

□□□ + □□□ _____ Your score this round:_____

5 in a Row: Addition & Subtraction

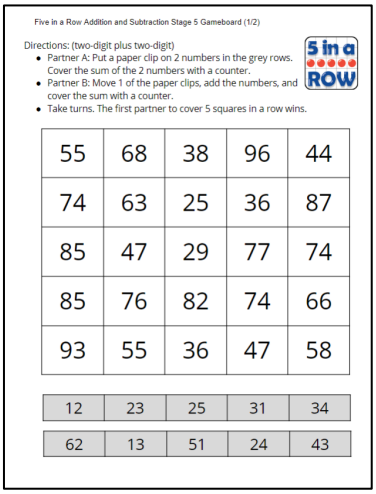
Stage 5: Add within 100 without Composing

Task statement

Partner A chooses two numbers and places a paper clip on each number.
They add the numbers and place a counter on the sum.
Partner B moves one of the paper clips to a different number, adds the numbers, and places a counter on the sum.
Students take turns moving one paper clip, finding the sum, and covering it with a counter.

Required materials

•Each group of 2 needs 25 counters and 2 paper clips.
•Stage 5 Gameboard



Five in a Row Addition and Subtraction Stage 5 Gameboard (1/2)

Directions: (two-digit plus two-digit)

- Partner A: Put a paper clip on 2 numbers in the grey rows. Cover the sum of the 2 numbers with a counter.
- Partner B: Move 1 of the paper clips, add the numbers, and cover the sum with a counter.
- Take turns. The first partner to cover 5 squares in a row wins.

55	68	38	96	44
74	63	25	36	87
85	47	29	77	74
85	76	82	74	66
93	55	36	47	58

12	23	25	31	34
62	13	51	24	43

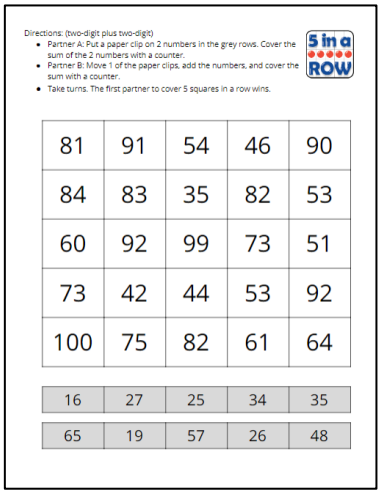
Stage 6: Add within 100 with Composing

Task statement

Partner A chooses two numbers and places a paper clip on each number.
They add the numbers and place a counter on the sum.
Partner B moves one of the paper clips to a different number, adds the numbers, and places a counter on the sum.
Students take turns moving one paper clip, finding the sum, and covering it with a counter.

Required materials

•Each group of 2 needs 25 counters and 2 paper clips.
•Stage 6 Gameboard



Directions: (two-digit plus two-digit)

- Partner A: Put a paper clip on 2 numbers in the grey rows. Cover the sum of the 2 numbers with a counter.
- Partner B: Move 1 of the paper clips, add the numbers, and cover the sum with a counter.
- Take turns. The first partner to cover 5 squares in a row wins.

81	91	54	46	90
84	83	35	82	53
60	92	99	73	51
73	42	44	53	92
100	75	82	61	64

16	27	25	34	35
65	19	57	26	48

5 in a Row: Addition & Subtraction

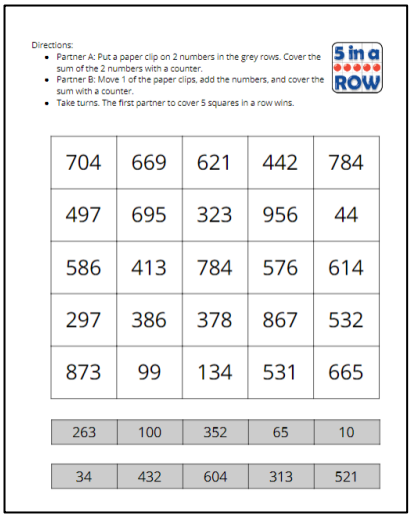
Stage 7: Add within 1,000 without Composing

Task statement

Partner A chooses two numbers and places a paper clip on each number.
They add the numbers and place a counter on the sum.
Partner B moves one of the paper clips to a different number, adds the numbers, and places a counter on the sum.
Students take turns moving one paper clip, finding the sum, and covering it with a counter.

Required materials

•Each group of 2 needs 25 counters and 2 paper clips.
•Stage 7 Gameboard



Directions:

- Partner A: Put a paper clip on 2 numbers in the grey rows. Cover the sum of the 2 numbers with a counter.
- Partner B: Move 1 of the paper clips, add the numbers, and cover the sum with a counter.
- Take turns. The first partner to cover 5 squares in a row wins.

5 in a ROW

704	669	621	442	784
497	695	323	956	44
586	413	784	576	614
297	386	378	867	532
873	99	134	531	665

263	100	352	65	10

34	432	604	313	521

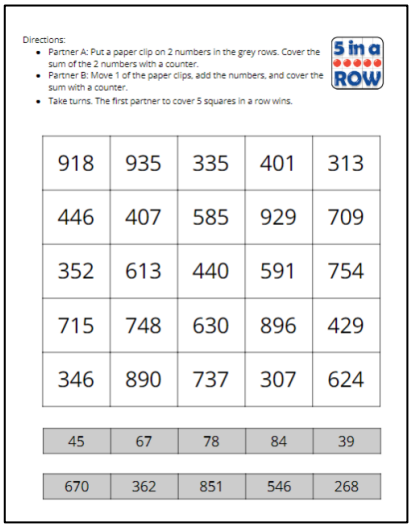
Stage 8: Add within 1,000 with Composing

Task statement

Partner A chooses two numbers and places a paper clip on each number.
They add the numbers and place a counter on the sum.
Partner B moves one of the paper clips to a different number, adds the numbers, and places a counter on the sum.
Students take turns moving one paper clip, finding the sum, and covering it with a counter.

Required materials

•Each group of 2 needs 25 counters and 2 paper clips.
•Stage 8 Gameboard



Directions:

- Partner A: Put a paper clip on 2 numbers in the grey rows. Cover the sum of the 2 numbers with a counter.
- Partner B: Move 1 of the paper clips, add the numbers, and cover the sum with a counter.
- Take turns. The first partner to cover 5 squares in a row wins.

5 in a ROW

918	935	335	401	313
446	407	585	929	709
352	613	440	591	754
715	748	630	896	429
346	890	737	307	624

45	67	78	84	39

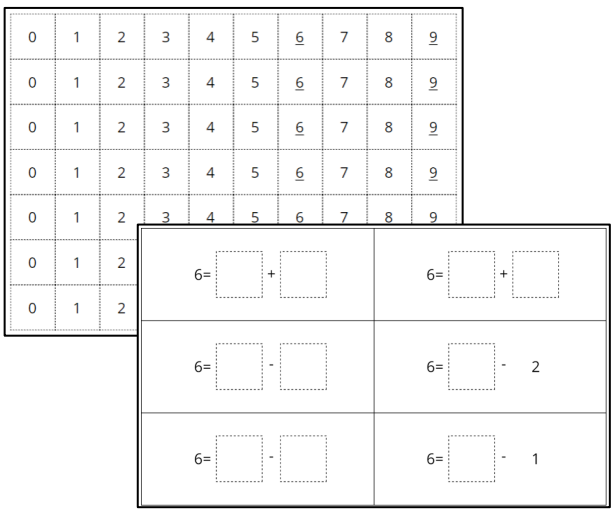
670	362	851	546	268

Number Puzzles: +/-

Stage 1: Within 10

Task statement
Students work together to use digit cards to make addition and subtraction equations within 10 true.
Each digit card may only be used one time on a page

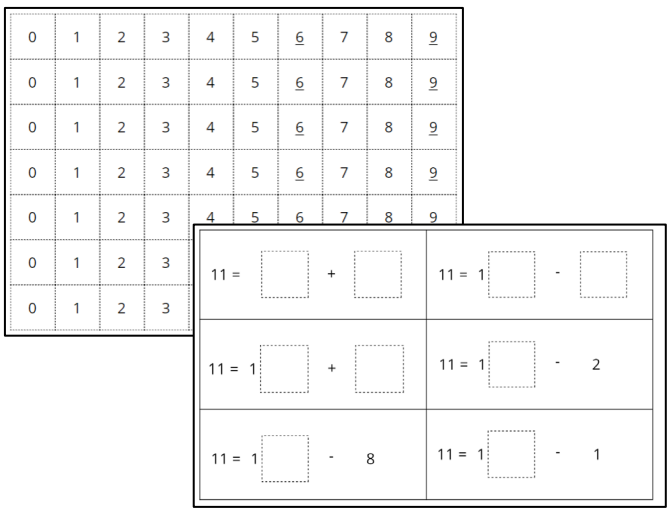
Required materials
•Number Puzzle Digit Cards
•Stage 1 Gameboard



Stage 2: Within 20

Task statement
Students work together to use digit cards to make addition and subtraction equations within 20 true.
Each digit card may only be used one time on a page.

Required materials
•Number Puzzle Digit Cards
•Stage 2 Gameboard

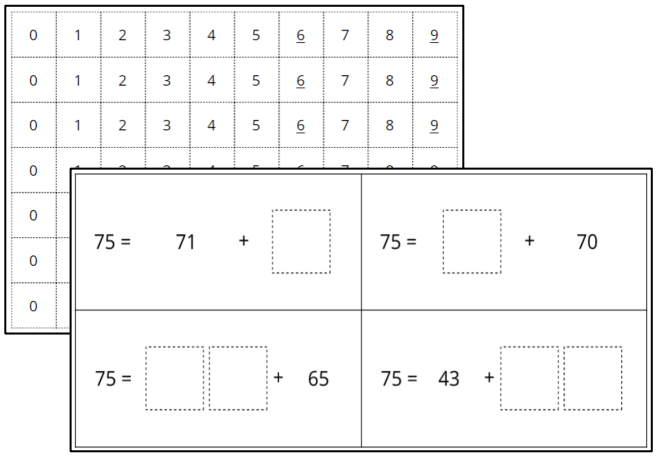


Number Puzzles: +/-

Stage 3: Within 100 without Composing

Task statement
Students work together to use digit cards to make addition and subtraction equations within 100 without composing true.
Each digit card may only be used one time on a page.

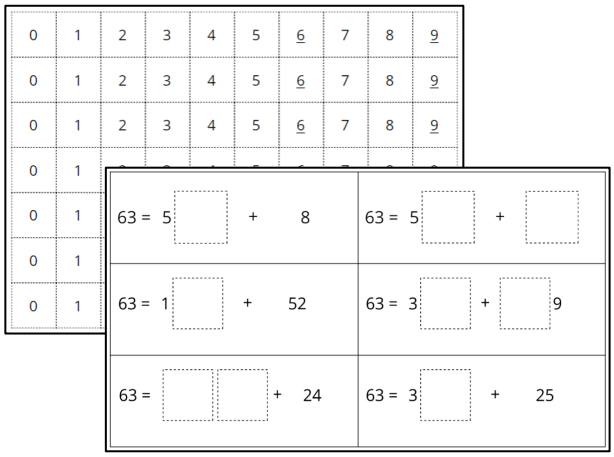
Required materials
•Number Puzzle Digit Cards
•Stage 3 Gameboard



Stage 4: Within 100, with Composing

Task statement
Students use digit cards to make addition and subtraction equations true.
They work with sums and differences within 100 with composing and decomposing.
Each digit card may only be used one time on a page.

Required materials
•Number Puzzle Digit Cards
•Stage 4 Gameboard



Jump the Line

Stage 1: Add and Subtract within 100

Task statement

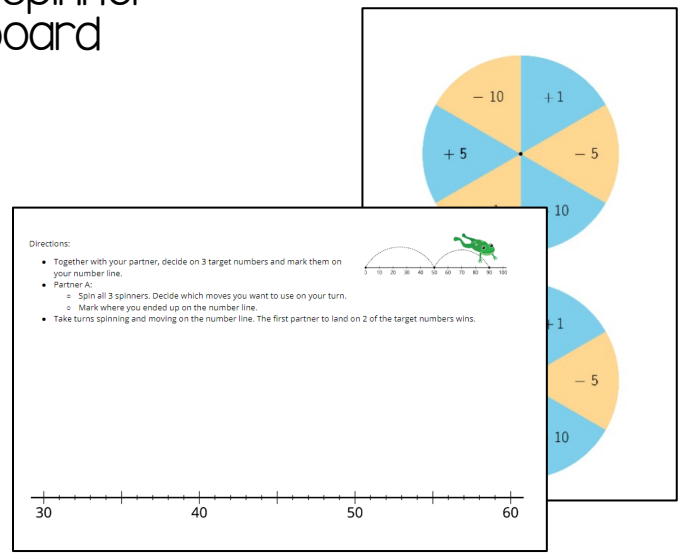
Both players start at 30 on a number line marked by 1. Spinners show adding or subtracting 10, 5, or 1.

Students take turns making strategic choices about numbers to add or subtract to reach target numbers.

Students choose three target numbers and mark them on the number line. Both players start at the beginning of the number line. They spin all three spinners and decide which of the moves they want to use on their turn. Students take turns spinning and moving, trying to land exactly on the target numbers. The first player to land on two target numbers wins.

Required materials

- Each group of 2 needs a sheet protector, a dry erase marker, and 2 paper clips.
- Jump the Line spinner
- Stage 1 Gameboard



Which One?

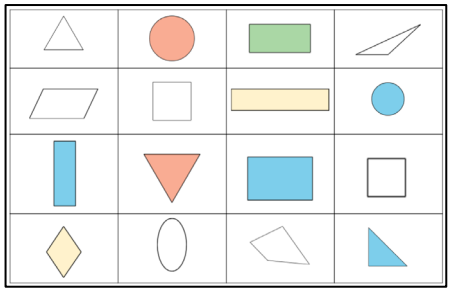
Stage 2

Task statement

One partner chooses a shape on the gameboard.
The other partner asks questions to figure out what shape they chose.
Students may use counters to cover up shapes that have been eliminated.
Students work with triangles and quadrilaterals.

Required materials

•Counters
•Which One stage 2 gameboard



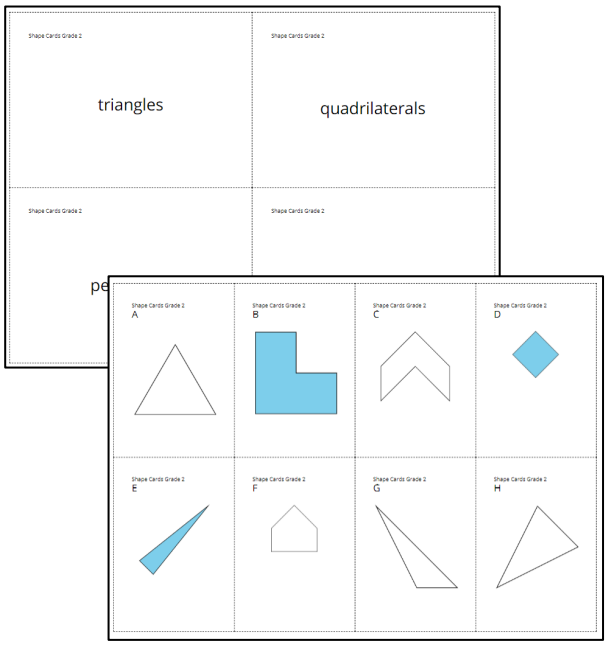
Stage 3

Task statement

Students lay out the shape cards face up in rows.
One partner chooses a shape.
The other partner asks questions to figure out what shape they chose.
Students work with triangles, quadrilaterals, and hexagons.

Required materials

•Shape Cards, grade 2



Picture Books

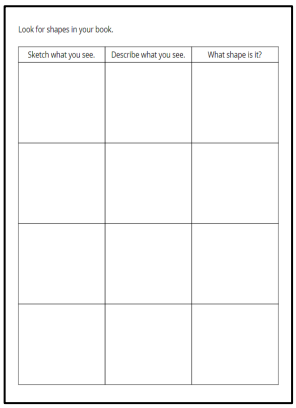
Stage 3: Find Shapes

Task statement

Students look through picture books and notice and describe shapes they see in the pictures.

Required materials

- Each group of 2-4 needs at least one picture book that shows a variety of shapes throughout the book.
- Picture Books, stage 3 recording sheet



Look for shapes in your book.

Sketch what you see.	Describe what you see.	What shape is it?

Sort and Display

Stage 1: Any Way

Task statement

Students sort 10-20 objects into two or three categories and then show how they sorted. Provide students with a group of items that will be interesting for them to work with such as: pattern blocks, connecting cubes, counters, combination of the blocks, cubes, counters, sets of books

Students then show their representation to a partner and ask questions that can be answered about their collection of objects.

Required materials

•Collection of objects
•Sort and Display stage 1 recording sheet


Directions:

- Choose 2 or 3 categories to sort your objects into.
- Show how you sorted.
- Show what you made to a partner. Ask them a question about how you sorted.

Stage 2: Picture Graphs

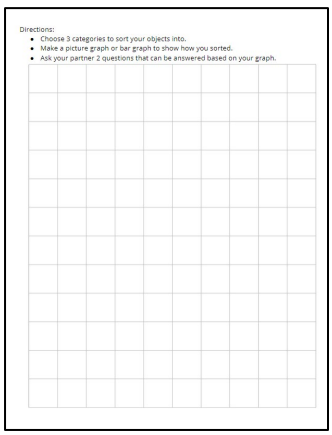
Task statement

Students sort 20-30 objects into three categories and make a picture or bar graph that shows how they sorted. Provide students with a group of items that will be interesting for them to work with such as: pattern blocks, connecting cubes, counters, combination of the blocks, cubes, counters, sets of books

Students then ask their partner two questions that can be answered based on their graph.

Required materials

•Collection of objects
•Sort and Display stage 2 recording sheet.


Directions:

- Choose 3 categories to sort your objects into.
- Make a picture graph or bar graph to show how you sorted.
- Ask your partner 2 questions that can be answered based on your graph.

Estimate and Measure

Stage 1: Choose Your Unit

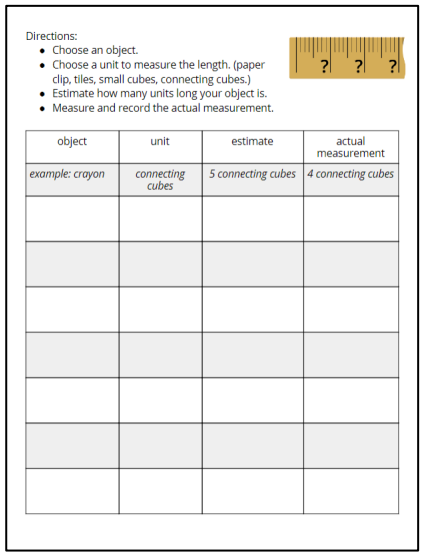
Task statement

Students estimate the length of objects and then measure to find the actual length.

Students choose an object and a familiar unit to measure it with. They estimate the length of the object and then measure to see the actual length to the nearest whole unit.

Required materials

- Objects of various lengths
- Rulers (centimeters)
- Rulers (inches)
- Estimating and Measuring Length recording sheet stage 1



Directions:

- Choose an object.
- Choose a unit to measure the length. (paper clip, tiles, small cubes, connecting cubes.)
- Estimate how many units long your object is.
- Measure and record the actual measurement.

object	unit	estimate	actual measurement
example: crayon	*connecting cubes*	*5 connecting cubes*	*4 connecting cubes*

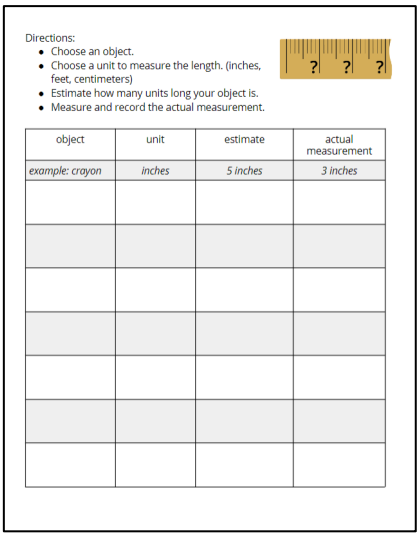
Stage 2: Centimeters & Inches

Task statement

Students choose an object and a unit (inches, feet, centimeters) to measure it with. They estimate the length of the object and then measure to see the actual length to the nearest whole unit.

Required materials

- Rulers (inches)
- Rulers (centimeters)
- Estimating and Measuring, stage 2 recording sheet



Directions:

- Choose an object.
- Choose a unit to measure the length. (inches, feet, centimeters)
- Estimate how many units long your object is.
- Measure and record the actual measurement.

object	unit	estimate	actual measurement
example: crayon	*inches*	*5 inches*	*3 inches*

Target Measurements

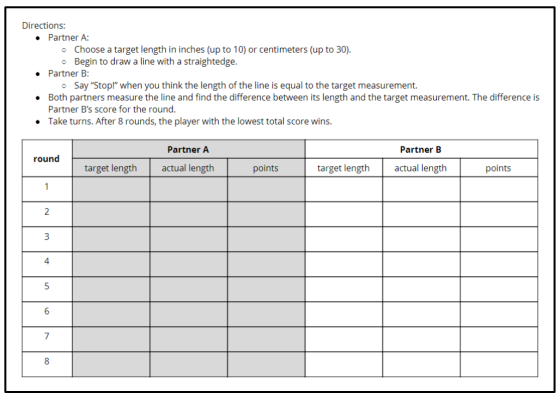
Stage 1: Inches and Centimeters

Task statement

Students try to draw a line segment as close as possible to the length of the target measurement (in whole inches or centimeters).

Required materials

- Paper
- Rulers (centimeters)
- Rulers (inches)
- Target Measurement Stage 1 Recording Sheet



Directions:

- Partner A:
  - Choose a target length in inches (up to 10) or centimeters (up to 30).
  - Begin to draw a line with a straightedge.
- Partner B:
  - Say "Stop!" when you think the length of the line is equal to the target measurement.
- Both partners measure the line and find the difference between its length and the target measurement. The difference is Partner B's score for the round.
- Take turns. After 8 rounds, the player with the lowest total score wins.

round	Partner A			Partner B		
	target length	actual length	points	target length	actual length	points
1						
2						
3						
4						
5						
6						
7						
8						

How are They the Same?

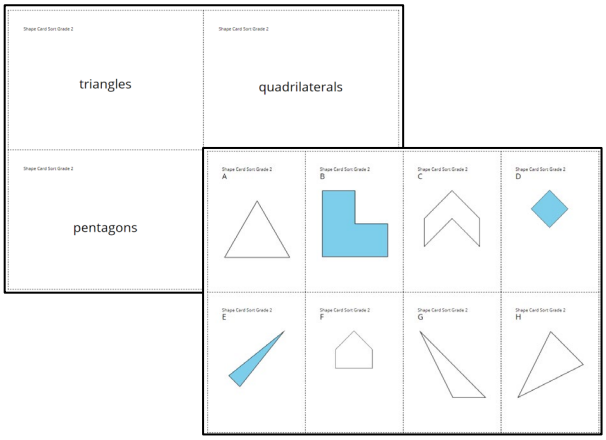
Stage 2:
Grade 2 Shapes

Task statement

Students lay six shape cards face up. One student picks two cards that have an attribute in common. All students draw a shape that has a shared attribute with the two shapes. Students get a point if they draw a shape that no other student drew. It is possible that students will draw a shape with a different shared attribute than what the original student chose. This can be an interesting discussion for students to have.

Required materials

- Paper
- Shape Card Sort Grade 2



Can You Draw It?

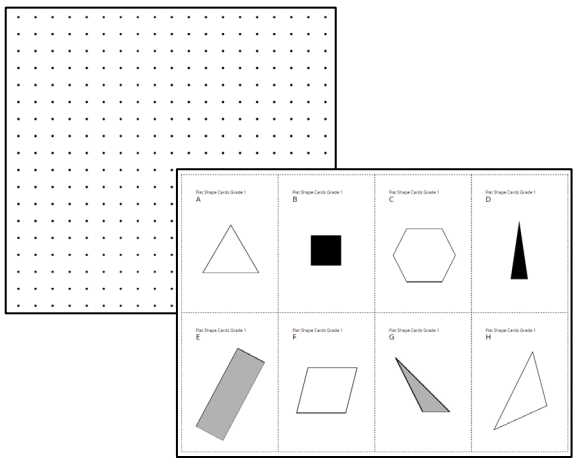
Stage 1: Stage 1 Shapes

Task statement

Students describe and draw two-dimensional shapes. One partner describes a shape. The other partner draws the shape based on the description.
Partner A chooses a shape card and describes it to their partner. If Partner B draws the shape correctly, they keep the card. Shape cards include triangles and quadrilaterals.

Required materials

- Centimeter Dot Paper - Standard
- Flat Shape Cards Grade 1



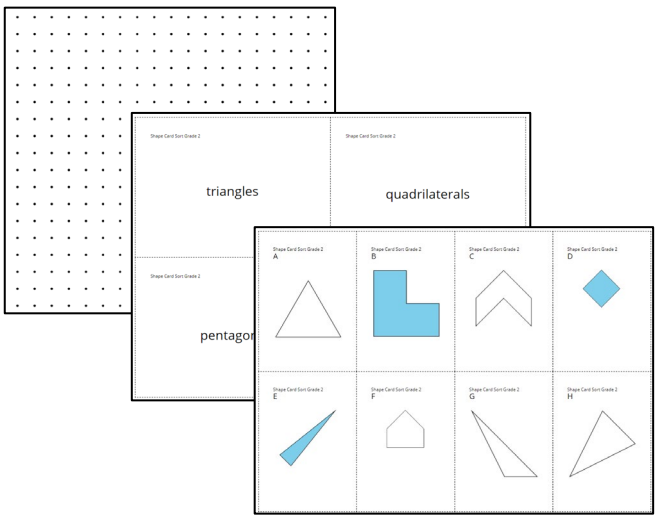
Stage 2: Grade 2 Shapes

Task statement

Students describe and draw two-dimensional shapes. One partner describes a shape. The other partner draws the shape based on the description.
Partner A chooses a shape card and describes it to their partner. If Partner B draws the shape correctly, they keep the card. Shape cards include triangles and quadrilaterals, and hexagons.

Required materials

- Centimeter Dot Paper - Standard
- Shape Cards Grade 2



Would You Rather?

Stage 1: Money

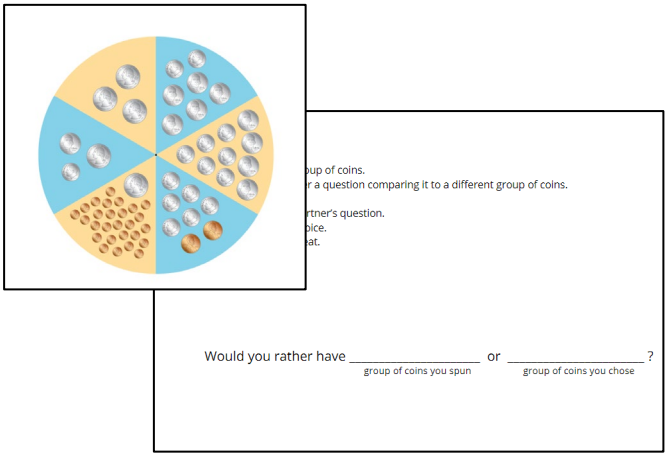
Task statement

The first partner writes a 'Would you rather' question that compares two different amounts such as "Would you rather drink 1 liter of soda or 50 milliliters of soda?" Their partner makes a choice and explains why in terms of the units.

The first partner spins to get a group of coins. They write a question that compares the amount they spun to a different group of coins that they make up.

Required materials

- Would You Rather Stage 1 Spinner
- Would You Rather Stage 1 Recording Sheet



Creating Line Plots

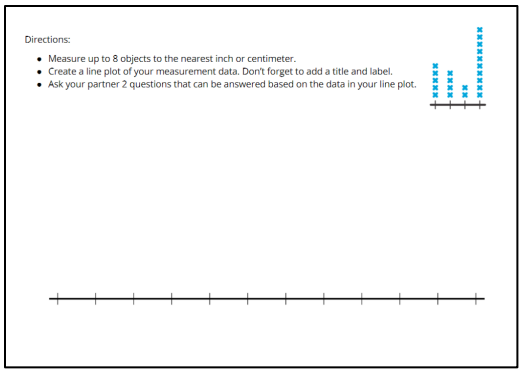
Stage I: Inches and Centimeters

Task statement

Students measure up to eight objects to the nearest centimeter or inch. They work with a partner to create a line plot to represent their measurement data. Then they ask their partner two questions that can be answered based on their line plot.

Required materials

- Objects of various lengths
- Rulers (centimeters)
- Rulers (inches)
- Creating Line Plots Stage I Recording Sheet


Directions:

- Measure up to 8 objects to the nearest inch or centimeter.
- Create a line plot of your measurement data. Don't forget to add a title and label.
- Ask your partner 2 questions that can be answered based on the data in your line plot.

Counting Collections

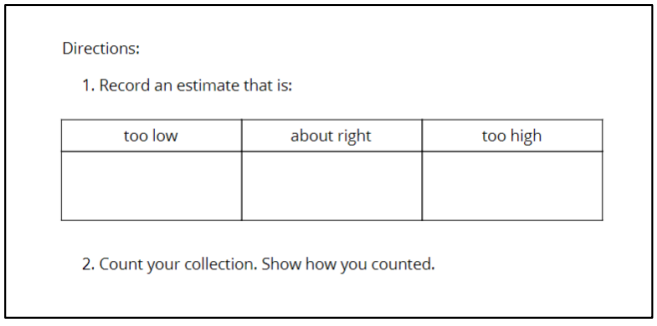
Stage 3: Estimate & Count up to 120

Task statement

Students are given a collection of up to 120 objects.
They record an estimate for how many objects they think are in their collection.
Then, they work with a partner to figure out how many objects are in their collection and each partner records how many.
Students may draw pictures, write numbers or equations, or use base-ten representations to represent their collection.

Required materials

- 10-frames
- Collections of objects
- Cups
- Paper plates
- Counting Collections Stage 3 Recording Sheet



Directions:

1. Record an estimate that is:

too low	about right	too high

2. Count your collection. Show how you counted.