

First Grade

Illustrative Math



Math Centers
Stage by Stage

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Let's Connect!



Grab and Count

Stage 2: Ones Cubes

Task statement

- Each student grabs a handful of ones cubes and put them together with their partner's.
- They estimate how many cubes there are and then count the cubes.
- Students record their estimate and the actual number of cubes on the recording sheet.

Required materials

- Base-ten blocks
- Grab and Count Recording Sheet

guess _____ _____	count _____ _____
guess _____ _____	count _____ _____
guess _____ _____	count _____ _____
guess _____ _____	count _____ _____
guess _____ _____	count _____ _____

Number Race

Stage 3: Add to 10

Task statement

- Students take turns rolling two dot cubes.
- They find the sum and record it in the corresponding column on their gameboard.
- If the sum is more than 10, students roll the cubes again.

Required materials

- Dot Cubes
- Number Race Gameboard

1	2	3	4	5	6	7	8	9	10

Write Numbers

Stage 1: Numbers to 99 by 1

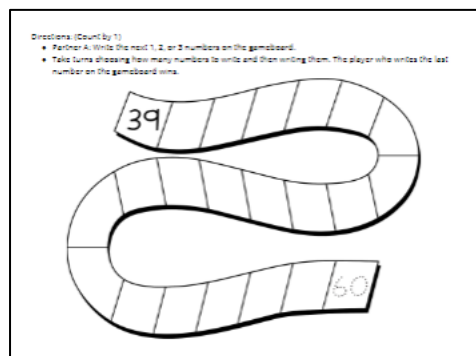
Task statement

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 count by 1 and choose whether to count forward or backward. Gameboards go from 39-60, 69-90, and 78-99.

Required materials

- Dry erase markers
- Sheet protectors
- Write the Number Stage 1 Gameboard



Stage 2: Numbers to 99 by 1 and 10

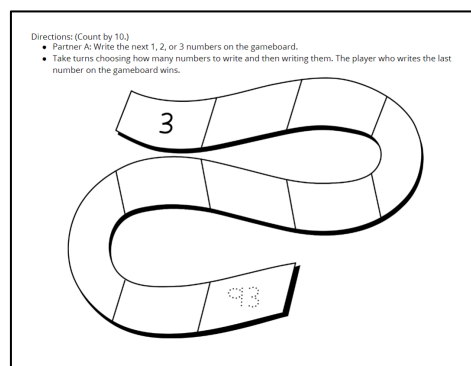
Task statement

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 count by 10 and choose whether to count forward or backward. Gameboards go from 3-93, 5-95, and 8-98.

Required materials

- Dry erase markers
- Sheet protectors
- Write the Number Stage 2 Gameboard



Write Numbers

Stage 3: Numbers to 120 by 1

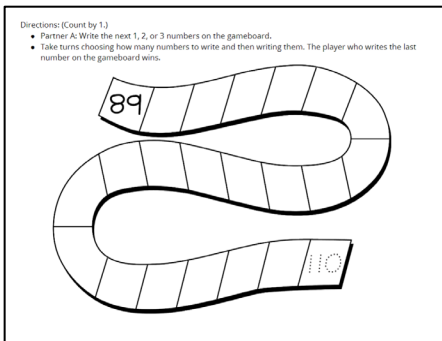
Task statement

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 count by 1 and choose whether to count forward or backward. Gameboards go from 89-110, 95-116, and 99-120.

Required materials

- Dry erase markers
- Sheet protectors
- Write the Number Stage 3 Gameboard



Get Your Numbers in Order

Stage I: 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.



Least **Greatest**

--	--	--	--	--	--	--

Points

Partner A	Partner B

Greatest of them All

Stage I: 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: <ul style="list-style-type: none">• 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
<div><div></div><div></div></div>	<div><div></div><div></div></div>
Compare using $<$, $>$, or $=$.	
<div></div>	
Round 2:	
My Number	My Partner's Number
<div><div></div><div></div></div>	<div><div></div><div></div></div>
Compare using $<$, $>$, or $=$.	
<div></div>	

Find the Pair

Stage 2: Make 10

Task statement

Partner A asks their partner for a number that would make 10 when added to the number on one of their cards. If Partner B has the card, they give it to Partner A. If not, Partner A chooses a new card. When students make the target number 10, they put down those two cards and write an equation to represent the combination. Students continue playing until one player runs out of cards. The player with the most pairs wins.

Required materials

- 10-frames
- Connecting cubes or counters
- Number cards 0-10
- Find the Pair recording sheet

<p>Directions:</p> <ul style="list-style-type: none">• Take 5 cards each and put the rest in a pile face down.• Partner A:<ul style="list-style-type: none">• Ask your partner for a number that can be added to one of your cards to make 10.• If they have the card, put the pair of cards down and fill in the equation.• If they don't have that card, pick a card from a pile.• Take turns asking for cards. The partner with the most pairs at the end of the game wins. <p>___ + ___ = 10</p> <p>___ + ___ = 10</p> <p>___ + ___ = 10</p>	<table border="1"><tr><td>1</td><td>2</td></tr><tr><td>3</td><td>4</td></tr><tr><td>5</td><td>6</td></tr></table>	1	2	3	4	5	6
1	2						
3	4						
5	6						

Check it Off

Stage 1: Add within 10

Task statement

Students take turns picking two number cards (0-5) to make and find the value of an addition expression. Students check off the number that represents the value of the sum (0-10) and then write the addition expression on the recording sheet.

This stage has two different recording sheets, one for kindergarten and another for grade 1. On the kindergarten recording sheet, students fill in blanks to record the expression. On the grade 1 recording sheet, students write in the full expression. Be sure to use the appropriate recording sheet with students.

Required materials

- Number Cards 0-10
- Check it Off Recording Sheet

Directions:

- Partner A:
 - Pick 2 cards and find the sum.
 - Check off the number you found and write the expression.
- Take turns. The partner who has checked off the most numbers at the end of the game wins.

✓ Found it!	expression
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

1	2
3	4
5	6

Stage 2: Subtract within 10

Task statement

Students take turns picking two number cards (0-10) to make and find the value of a subtraction expression. Students check off the number that represents the value of the difference (0-10) and then write the subtraction expression on the recording sheet.

Required materials

- Number Cards 0-10
- Check it Off Recording Sheet

Directions:

- Partner A:
 - Pick 2 cards and find the difference.
 - Check off the number you found and write the expression.
- Take turns. The partner who has checked off the most numbers at the end of the game wins.

✓ Found it!	expression
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

1	2
3	4
5	6

Check it Off

Stage 3: Add or Subtract Tens

Task statement

Students take turns picking two number cards that are multiples of 10 (0-90) and choose whether to make an addition or subtraction expression. Students check off the value of the sum or difference (0-90) and then write the addition or subtraction expression on the recording sheet.

Required materials

- Connecting cubes in towers of 10 and singles
- Number Cards, Multiples of 10 (0-90)
- Check it Off, stage 3 recording sheet

Number Cards Multiples of 10	Number Cards Multiples of 10	Number Cards Multiples of 10	Number Cards Multiples of 10
10	20	30	40
50	60		

Directions:

- Partner A:
 - Pick 2 cards and find the sum or difference.
 - Check off the number you found and write the expression.
- Take turns. The partner who has checked off the most numbers at the end of the game wins.

	✓ Found it!	expression
0		
10		
20		
30		
40		
50		
60		
70		
80		
90		

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
- What's Behind My Back Stage 2 Recording Sheet Grade 1

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.


$$\square + \square = \square$$
$$\square + \square = \square$$
$$\square + \square = \square$$
$$\square + \square = \square$$

Shake and Spill

Stage 3: Represent


Task statement

Students decide together how many counters to use (up to 10). One partner spills the counters. Both partners represent the red and yellow counters on the recording sheet.

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

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



Directions:

- Choose how many counters to put in the cup.
- Partner A: Shake and spill.
- Both partners: Determine how many red counters and how many yellow counters there are and write an equation to show the total.
- 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	

Draw a picture.

Fill in the expression.

Draw a picture.

Fill in the expression.

Draw a picture.

Fill in the expression.

Kindergarten

Grade 1

Stage 4: Cover (up to 10)


Task statement

Students decide together how many counters to use (up to 10). 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.

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

- Each group of 2 needs a cup and 10 two-color counters
- 5-frames
- Cups



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	

Kindergarten

Grade 1 & 2

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

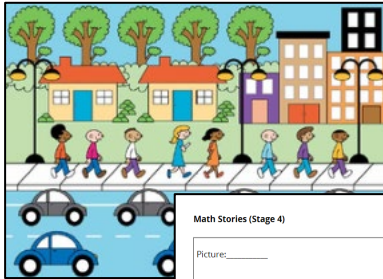
Stage 4: Add and Subtract

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



Math Stories (Stage 4)	
Picture: _____	
Equation: _____	
Picture: _____	
Equation: _____	
Picture: _____	
Equation: _____	
Picture: _____	
Equation: _____	

Capture Squares

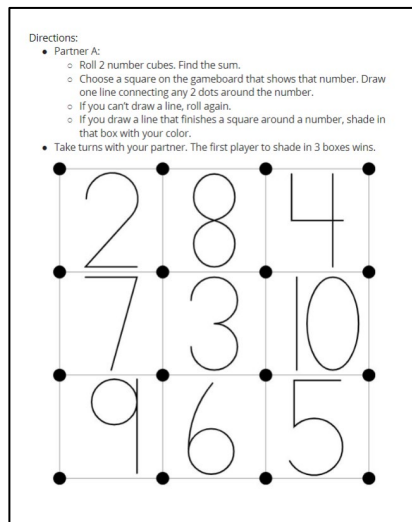
Stage 1: Add within 10

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



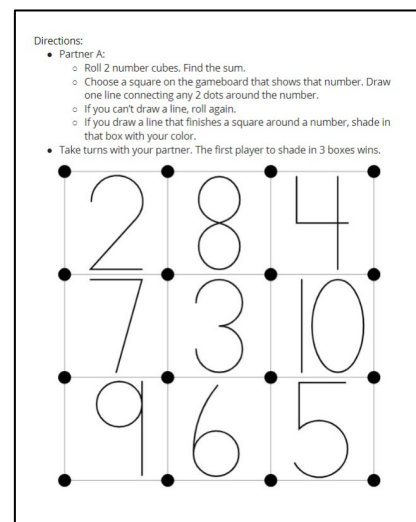
Stage 2: Subtract within 10

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



Target Numbers

Stage 1: Add Ones

Task statement

Before playing, students remove the cards that show 0 and 10 and set them aside.

Students add a one-digit number to a two-digit number with composing a ten in order to get as close to 95 as possible. Students start their first equation with 55 and turn over a number card and add it to their starting number for the round. The sum becomes the first addend in the next round. The player who gets closest to 95 in 6 rounds, without going over, is the winner.

Required materials

- Connecting cubes in towers of 10 and singles
- Number cards 0-10
- Target Numbers Recording Sheet

Directions:

- On your turn:
 - Start at 55. Roll the number cube.
 - Add that number to your starting number and write an equation to represent the sum.
- Take turns until you've played 6 rounds.
- Each round, the sum from the previous equations is the starting number in the new equation.
- The partner to get a sum closest to 95 without going over wins.

roll	equation
55	55 + _____ = _____
_____	_____ + _____ = _____
_____	_____ + _____ = _____
_____	_____ + _____ = _____
_____	_____ + _____ = _____
_____	_____ + _____ = _____

Stage 2: Add Tens or Ones

Task statement

Before playing, students remove the cards that show 0 and 10 and set them aside.

Students add tens or ones to get as close to 95 as possible. Students start their first equation with 25. Students take turns flipping a number card and choosing whether to add that number of tens or ones and write an equation. The sum becomes the first addend in the next round. The player who gets closest to 95 in 6 rounds, without going over, is the winner.

Required materials

- Connecting cubes in towers of 10 and singles
- Number cards 0-10
- Target Numbers Recording Sheet

Directions:

- On your turn:
 - Start at 25. Pick a number card. Choose whether to add that number of tens or ones 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 equations becomes the starting number in the new equation.
- The partner to get a sum closest to 95 without going over wins.

roll	choose	equation
tens or ones	25	25 + _____ = _____
tens or ones	_____	_____ + _____ = _____
tens or ones	_____	_____ + _____ = _____
tens or ones	_____	_____ + _____ = _____
tens or ones	_____	_____ + _____ = _____
tens or ones	_____	_____ + _____ = _____

Target Numbers

Stage 3: Add Two-digit Numbers

Task statement

Students add two-digit numbers to get as close to 95 as possible. Students start by rolling two number cubes to get a starting number. Then, they take turns rolling the three cubes to get a number to add. They choose one of the numbers on the cubes to represent the tens and a different number to represent the ones. Students add their tens and ones to the starting number. The sum becomes the first addend in the next round. The player who gets closest to 95 in 6 rounds, without going over, is the winner.

Required materials

- Each group of 2 needs three number cubes.
- Connecting cubes in towers of 10 and singles
- Target Numbers Recording Sheet

Directions:

- On your turn:
 - Roll 2 cubes to get your starting number
 - Roll 3 cubes. Choose one number to represent the tens and one number to represent the ones you will add.
 - 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 who gets a sum closest to 95 without going over wins.

roll and choose	equation
tens _____ ones _____	_____ + _____ = _____
tens _____ ones _____	_____ + _____ = _____
tens _____ ones _____	_____ + _____ = _____
tens _____ ones _____	_____ + _____ = _____
tens _____ ones _____	_____ + _____ = _____
tens _____ ones _____	_____ + _____ = _____
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.

<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>

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 -	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>
20 -	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>
20 -	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>
20 -	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>

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.

<div><div></div><div></div></div>	+	<div><div></div><div></div></div>	=	_____
<div><div></div><div></div></div>	+	<div><div></div><div></div></div>	=	_____
<div><div></div><div></div></div>	+	<div><div></div><div></div></div>	=	_____
<div><div></div><div></div></div>	+	<div><div></div><div></div></div>	=	_____

Compare

Stage 1: Add and Subtract within 10

Task statement

Both partners flip over a card, the partner whose card has the greater value takes both cards. Students use cards with addition and subtraction expressions within 10.

The game is over when each partner runs out of cards to flip over. The partner with the most cards wins.

Required materials

- Addition Cards to 10

Compare Stage 1 $1 + 0$	Compare Stage 1 $0 + 7$
Compare Stage 1 $5 + 0$	Compare Stage 1 $0 + 3$
Compare Stage 1 $10 + 0$	Compare Stage 1 $0 + 9$
Compare Stage 1 $1 + 1$	Compare Stage 1 $1 + 2$

Stage 2: Add and Subtract within 20

Task statement

Both partners flip over a card, the partner whose card has the greater value takes both cards. Students use cards with addition and subtraction expressions within 20.

The game is over when each partner runs out of cards to flip over. The partner with the most cards wins.

Required materials

- Subtraction Cards to 20

Compare Stage 2 $20 - 4$	Compare Stage 2 $20 - 13$
Compare Stage 2 $20 - 18$	Compare Stage 2 $20 - 12$
Compare Stage 2 $20 - 15$	Compare Stage 2 $20 - 9$
Compare Stage 2 $19 - 7$	Compare Stage 2 $19 - 11$

5 in a Row: Addition & Subtraction


Stage 1: Add 1 or 2

Task statement

Students choose a number card 0-10 and choose to add 1 or 2 to the number on their card and then place their counter on the sum.

Required materials

- Each group of 2 needs 25 counters.
- Number cards 0-10
- Stage 1 & 2 Gameboard

				
2	4	9	8	3
5	7	6	10	9
8	3	FREE	5	4
9	2	10	3	7
6	5	8	9	4


Stage 2: Subtract 1 or 2

Task statement

Students choose a number card 0-10 and choose to subtract 1 or 2 from the number on their card and then place their counter on the difference.

Required materials

- Each group of 2 needs 25 counters.
- Number cards 0-10
- Stage 1 & 2 Gameboard

				
2	4	9	8	3
5	7	6	10	9
8	3	FREE	5	4
9	2	10	3	7
6	5	8	9	4

5 in a Row: Addition & Subtraction


Stage 3: Add 7, 8, or 9

Task statement

Students choose a number card 0-10 and choose to add 7, 8, or 9 to the number on their card and then place their counter on the sum.

Required materials

- Each group of 2 needs 25 counters.
- Number cards 0-10
- Stage 3 Gameboard

				
12	14	12	8	11
15	17	16	10	19
18	13	FREE	15	14
9	17	10	13	7
19	16	11	9	18

Stage 4: Add or Subtract 10

Task statement

Students choose a card that shows a multiple of 10. They choose whether to add or subtract 10 from the number on their card and then place their counter on the sum or difference.

Required materials

- Each group of 2 needs 25 counters.
- 10-frames
- Connecting cubes in towers of 10 and singles
- Number cards, Multiple of 10
- Stage 4 gameboard

20	40	60	80	30										
10	70	90	0	50										
60	30	FREE	50	40										
90	20	<table><tr><td>Number Cards Multiples of 10</td><td>10</td><td>20</td><td>30</td><td>40</td></tr><tr><td>Number Cards Multiples of 10</td><td>50</td><td>60</td><td>70</td><td>80</td></tr></table>			Number Cards Multiples of 10	10	20	30	40	Number Cards Multiples of 10	50	60	70	80
Number Cards Multiples of 10	10	20	30	40										
Number Cards Multiples of 10	50	60	70	80										
60	50	<table><tr><td>Number Cards Multiples of 10</td><td>50</td><td>60</td><td>70</td><td>80</td></tr></table>			Number Cards Multiples of 10	50	60	70	80					
Number Cards Multiples of 10	50	60	70	80										

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

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

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

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

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

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2							
0	1	2							

6 = <input type="text"/> + <input type="text"/>	6 = <input type="text"/> + <input type="text"/>
6 = <input type="text"/> - <input type="text"/>	6 = <input type="text"/> - 2
6 = <input type="text"/> - <input type="text"/>	6 = <input type="text"/> - 1

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

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3						
0	1	2	3						

11 = <input type="text"/> + <input type="text"/>	11 = 1 <input type="text"/> - <input type="text"/>
11 = 1 <input type="text"/> + <input type="text"/>	11 = 1 <input type="text"/> - 2
11 = 1 <input type="text"/> - 8	11 = 1 <input type="text"/> - 1

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

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0									
0									
0									
0									

75 = 71 + <input type="text"/>	75 = <input type="text"/> + 70
75 = <input type="text"/> <input type="text"/> + 65	75 = 43 + <input type="text"/> <input type="text"/>

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

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1								
0	1								
0	1								
0	1								

63 = 5 <input type="text"/> + 8	63 = 5 <input type="text"/> + <input type="text"/>
63 = 1 <input type="text"/> + 52	63 = 3 <input type="text"/> + <input type="text"/> 9
63 = <input type="text"/> <input type="text"/> + 24	63 = 3 <input type="text"/> + 25

Match Mine

Stage 2: Solid Shape

Task statement

Students use positional words as they build with solid shapes and describe what they have built so their partner can make a matching shape.

Required materials

- Folders
- Geoblocks
- Solid shapes

Geoblocks

Stage 3: Describe and Find

Task statement

Students describe solid shapes so their partner can identify the shape out of a set of 4-6 solid shapes.

Required materials

- Geoblocks
- Solid Shapes

Stage 4: Feel and Guess

Task statement

Students feel the shape without looking at it and guess the shape.

Required materials

- Geoblocks
- Bags
- Solid Shapes

Which One?

Stage 2

Task statement

One partner chooses a shape on the gameboard.

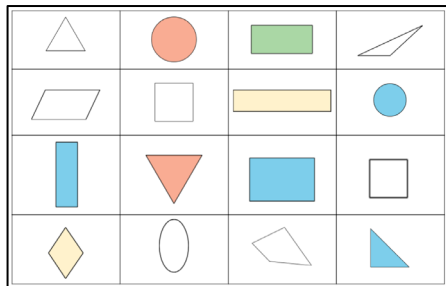
The other partner asks questions to figure out what shape they chose.

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



Picture Books

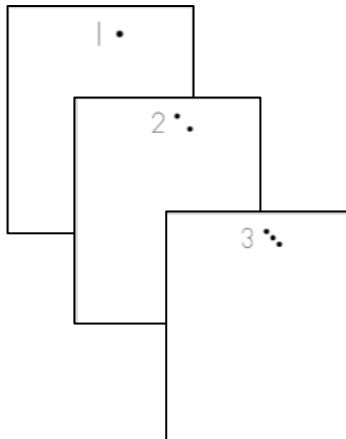
Stage 2: Create

Task statement

Students create their own picture book representing different numbers.

Required materials

- Colored pencils or crayons
- Picture Books, stage 2 recording sheet



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 I: 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 I 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.

Estimate and Measure

Stage I: 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 I

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

How are They the Same?

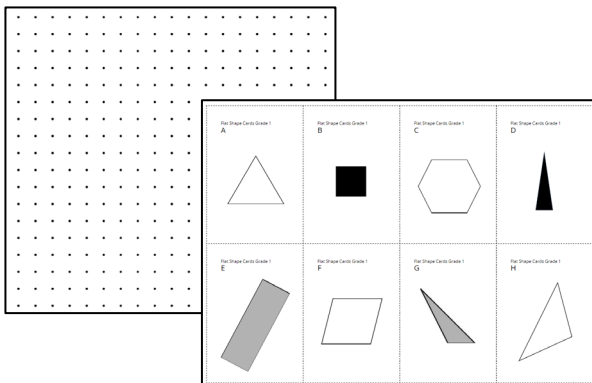
Stage I: Grade I Shapes

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

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



Can You Draw It?

Stage I: Stage I Shapes

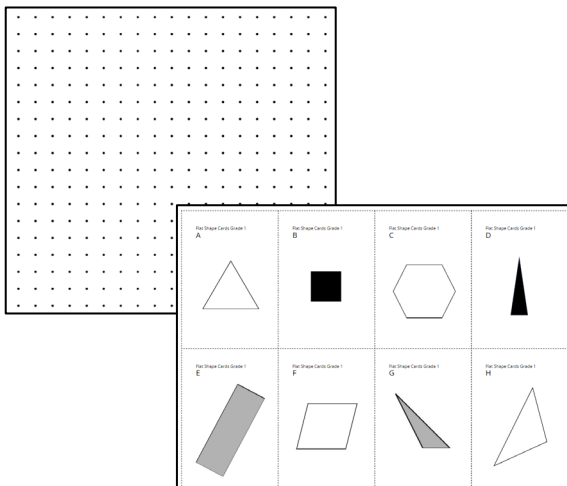
Task statement

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 I



Mystery Number

Stage I: 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 I, 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