



Preview - Information



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Grade 2
Strand: Number



	Curriculum Expectations	Pages
N2.1	<p>Demonstrate understanding of whole numbers to 100 (concretely, pictorially, physically, orally, in writing, and symbolically) by:</p> <ul style="list-style-type: none">• representing (including place value)• describing• skip counting• differentiating between odd and even numbers• estimating with referents	5 - 80
<p>Preview of 100 pages from this product that contains 321 pages total.</p>		
N2.2	<ul style="list-style-type: none">• representing strategies for adding and subtracting concretely, pictorially, and symbolically• creating and solving problems involving addition and subtraction• estimating• using personal strategies for adding and subtracting with and without the support of manipulatives• analyzing the effect of adding or subtracting zero• analyzing the effect of the ordering of the quantities (addends, minuends, and subtrahends) in addition and subtraction statements.	86 - 176
TQ2	Tests and Quizzes	82 - 84, 177 - 178

Name: _____

5

Curriculum Connection
N2.1

Place Value Chart

84	
Tens	Ones
8	4

Part 1

Fill in the place value charts below

1) _____

Tens	Ones

2) 46

Tens	Ones

3) 32

Tens	Ones

4) 85

Tens	Ones

5) _____

Tens	Ones

6) 17

Tens	Ones

7) 59

Tens	Ones

8) 98

Tens	Ones

9) 83

Tens	Ones

Part 2

Which place value is the underlined number?

1) <u>7</u> 5 Tens	2) 8 <u>4</u>	3) 1 <u>8</u>
4) 3 <u>2</u>	5) <u>8</u> 9	6) 6 <u>8</u>
7) <u>9</u> 6	8) 5 <u>4</u>	9) 3 <u>0</u>

Name: _____

6

Curriculum Connection
N2.1**Place Value – How Many...**

Number	# of Tens	# of Ones
75	7	5

Part 1

Fill in the table below

	Number	# of Tens	# of Ones
1.	16		
2.	28		
3.	37		
4.	48		
5.	52		
6.	77		
7.	97		
8.	66		
9.			
10.			

Part 2

Answer the riddles below

- 1) My number has 4 tens, 3 less ones than tens. What is my number?
- 2) My number has 8 ones and half as many tens. What is my number?
- 3) My number has 2 tens and 6 more ones than tens. What is my number?

Name: _____






8

Curriculum Connection
N2.1

Base Ten Blocks

Part 1

Count the blocks below.

#	Base Ten Blocks	Answer
1)		
2)		
3)		
4)		
5)		

Part 2

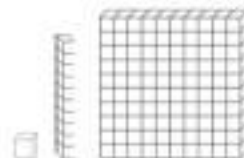
Draw your own base ten blocks and then count them.

#	Base Ten Blocks	Answer
1)		
2)		
3)		

Base Ten Blocks - Challenge

Challenge

Tip: Draw pictures to help you solve



Sam and Dan are arguing over who has more blocks. Sam has 5 tens blocks and 2 ones blocks. Dan has 3 tens blocks, and 18 ones blocks.

Dan thinks that because he has more blocks, his total blocks are more than Sam's.

Who has more blocks? Show your work below.

Sam's Blocks: _____

Dan's Blocks: _____

Who has more blocks? _____

Bonus:

How many more blocks will Sam/Dan need to have the same number of blocks? Draw the blocks below.

Answer: _____

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

a) How many blocks do you count?

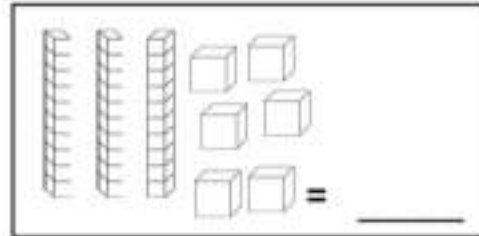


b) Answer the riddle below

My number has 6 ones and half as many tens. What is my number?

Name: _____

a) How many blocks do you count?

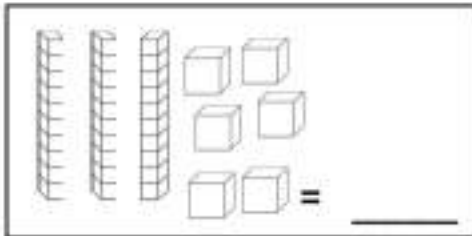


b) Answer the riddle below

My number has 6 ones and half as many tens. What is my number?

Name: _____

a) How many blocks do you count?

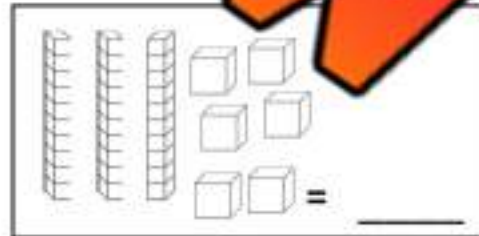


b) Answer the riddle below

My number has 6 ones and half as many tens. What is my number?

Name: _____

a) How many blocks do you count?



b) Answer the riddle below

My number has 6 ones and half as many tens. What is my number?

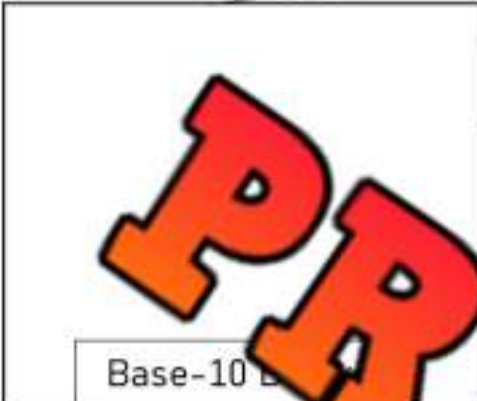
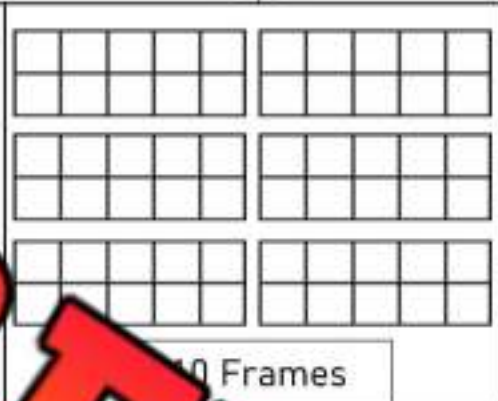
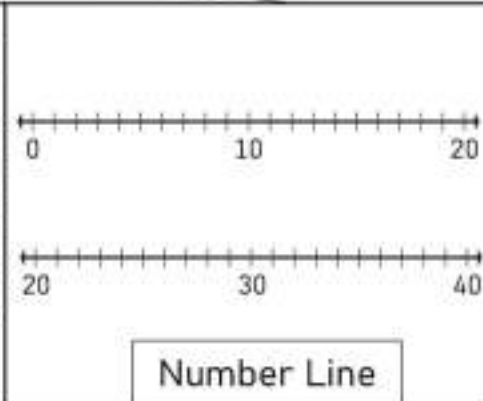
Representing Numbers

Questions

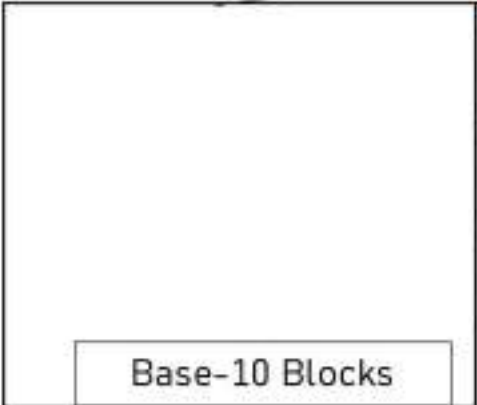
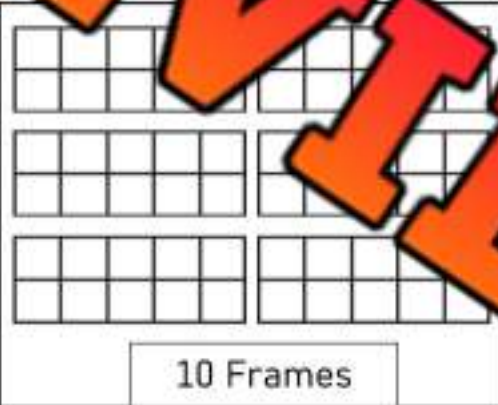
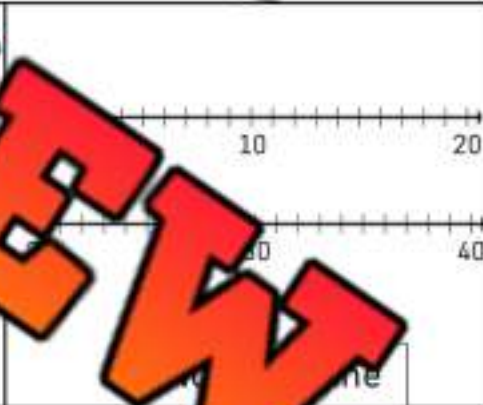
Represent the numbers below in three different ways

24

Base-10 Blocks	10 Frames	Number Line
----------------	-----------	-------------

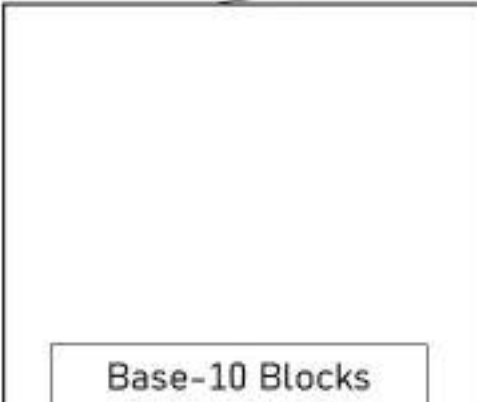
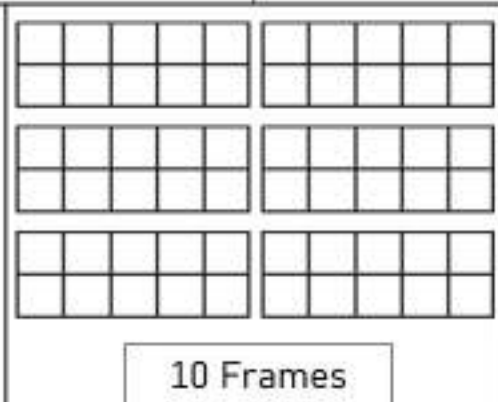
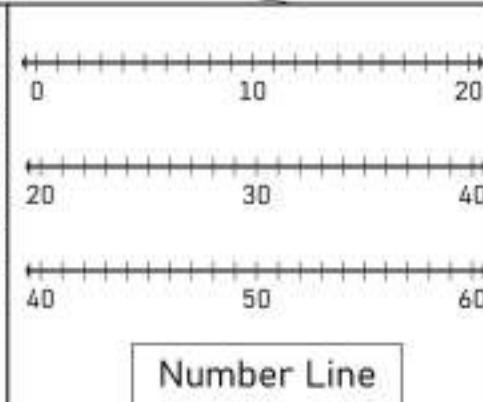
A large empty rectangular box for drawing base-10 blocks to represent the number 24.A 3x2 grid of 20 small squares, used for representing the number 24 by filling in the appropriate number of squares.Two horizontal number lines. The top one ranges from 0 to 20 with major tick marks every 10 units and minor tick marks every 1 unit. The bottom one ranges from 20 to 40 with major tick marks every 10 units and minor tick marks every 1 unit.

Base-10 Blocks	10 Frames	Number Line
----------------	-----------	-------------

A large empty rectangular box for drawing base-10 blocks to represent the number 24.A 3x2 grid of 20 small squares, used for representing the number 24 by filling in the appropriate number of squares.Two horizontal number lines. The top one ranges from 0 to 20 with major tick marks every 10 units and minor tick marks every 1 unit. The bottom one ranges from 20 to 40 with major tick marks every 10 units and minor tick marks every 1 unit.

58

Base-10 Blocks	10 Frames	Number Line
----------------	-----------	-------------

A large empty rectangular box for drawing base-10 blocks to represent the number 58.A 3x2 grid of 20 small squares, used for representing the number 58 by filling in the appropriate number of squares.Three horizontal number lines. The top one ranges from 0 to 20 with major tick marks every 10 units and minor tick marks every 1 unit. The middle one ranges from 20 to 40 with major tick marks every 10 units and minor tick marks every 1 unit. The bottom one ranges from 40 to 60 with major tick marks every 10 units and minor tick marks every 1 unit.

Name: _____

12

Curriculum Connection
N2.1

Expanded Form

72 ← Standard Form
70 + 2 ← Expanded Form

Part 1

What is the standard form of the numbers below?

1) 30 + 1	2) 70 + 9	3) 50 + 2
4) 30 + 3	5) 20 + 4	6) 10 + 8
7) 80 + 2		9) 70 + 2

Part 2

What is the expanded form of the number below?

1) 45	2) 54
3) 63	4) 89
5) 76	6) 93

Part 3

Fill in the blanks with the missing number

1) $53 = 50 + \underline{\quad}$	2) $79 = \underline{\quad} + 9$	3) $39 = 30 + \underline{\quad}$
4) $99 = 90 + \underline{\quad}$	5) $64 = \underline{\quad} + 4$	6) $84 = \underline{\quad} + 4$

Standard Form

Words

Expanded Form

Place Value Chart

Tens	

Pictures

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

a) What is the standard form of the numbers below?

$90 + 7 = \underline{\hspace{2cm}}$

b) What is the expanded form of the number below?

$29 = \underline{\hspace{2cm}}$

c) Fill in the blanks with the missing number

$78 = \underline{\hspace{2cm}} + 8$

Name: _____

a) What is the standard form of the numbers below?

$90 + 7 = \underline{\hspace{2cm}}$

b) What is the expanded form of the number below?

$29 = \underline{\hspace{2cm}}$

c) Fill in the blanks with the missing number

$78 = \underline{\hspace{2cm}} + 8$

Name: _____

a) What is the standard form of the numbers below?

$90 + 7 = \underline{\hspace{2cm}}$

b) What is the expanded form of the number below?

$29 = \underline{\hspace{2cm}}$

c) Fill in the blanks with the missing number

$78 = \underline{\hspace{2cm}} + 8$

Name: _____

a) What is the standard form of the numbers below?

$90 + 7 = \underline{\hspace{2cm}}$

b) What is the expanded form of the number below?

$29 = \underline{\hspace{2cm}}$

c) Fill in the blanks with the missing number

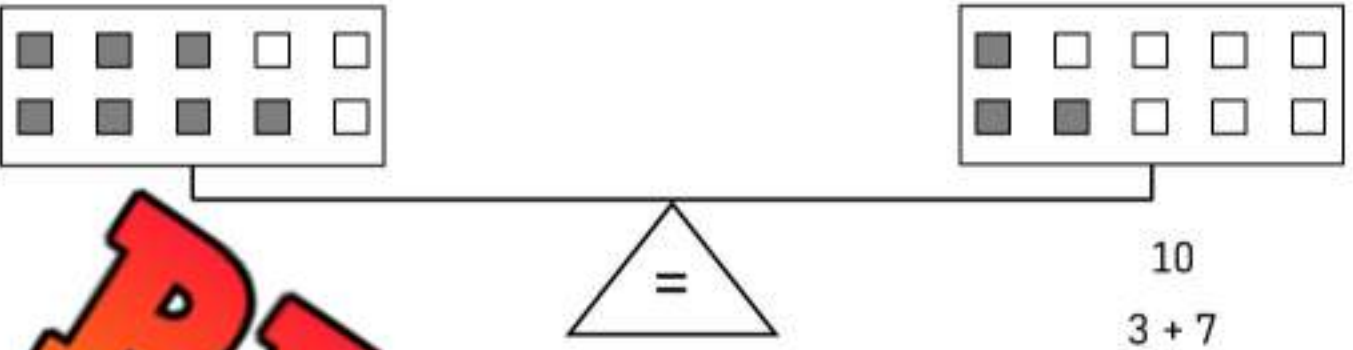
$78 = \underline{\hspace{2cm}} + 8$

Pan Balance - Equalities

Questions

Fill in the blanks to create equalities

1)



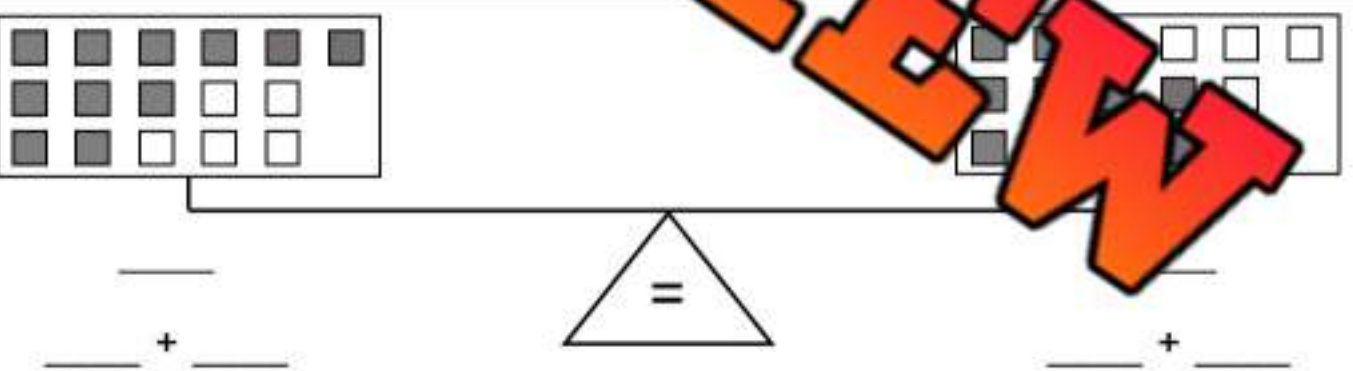
10
 $3 + 7$

2)



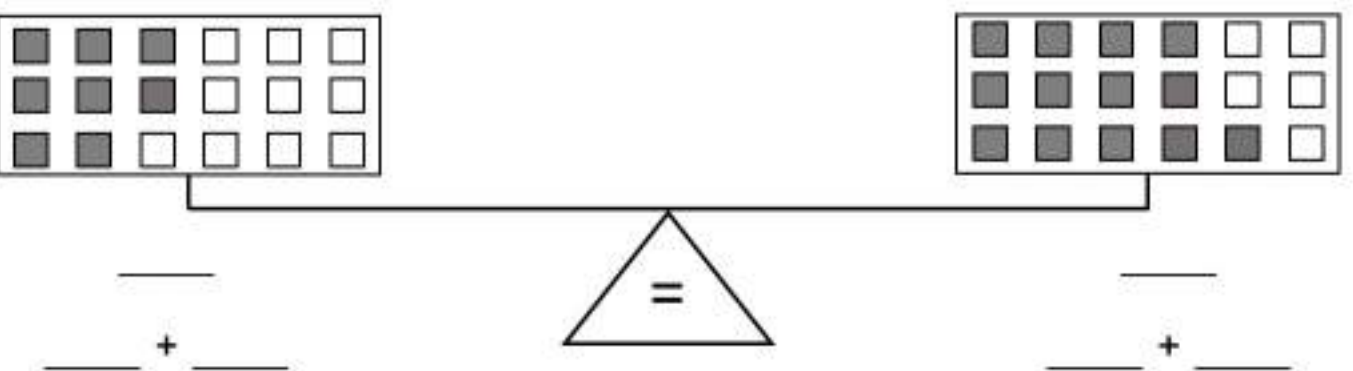
 + _____
 _____ + _____

3)



 + _____
 _____ + _____

4)



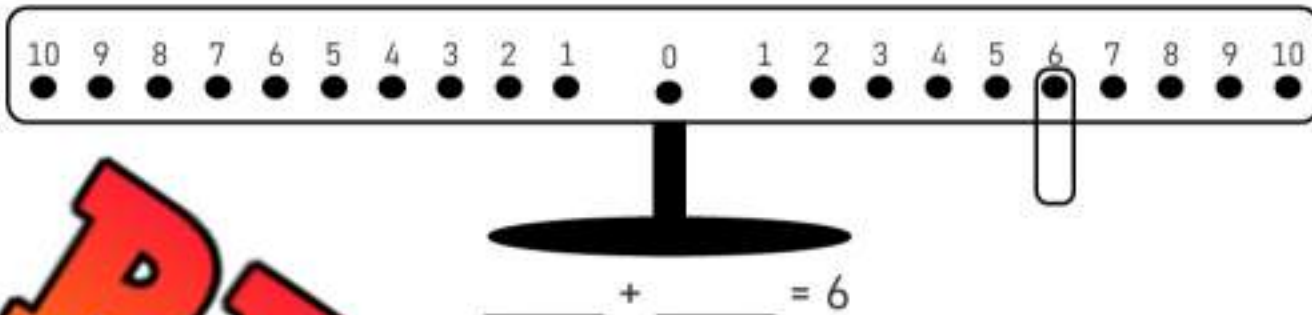
 + _____
 _____ + _____

Balance Pan Equations

Questions

How many ways can you balance the equation to equal 6

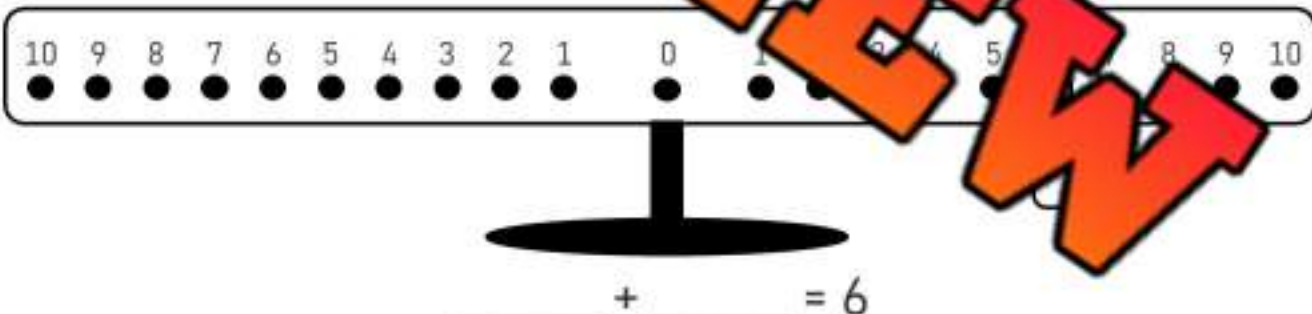
1)



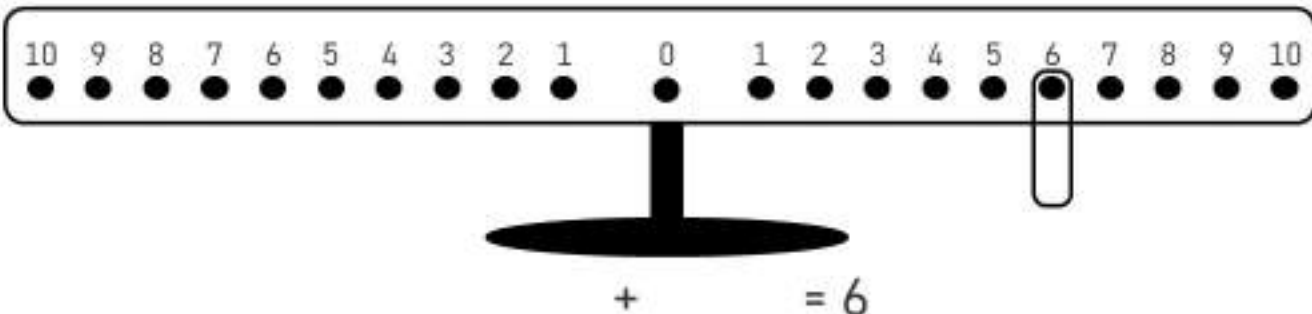
2)



3)



4)

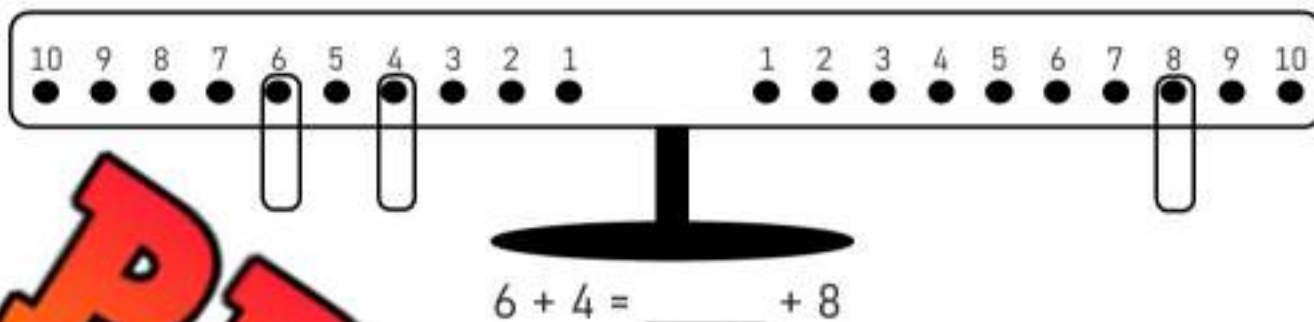


Balance Pan Equations

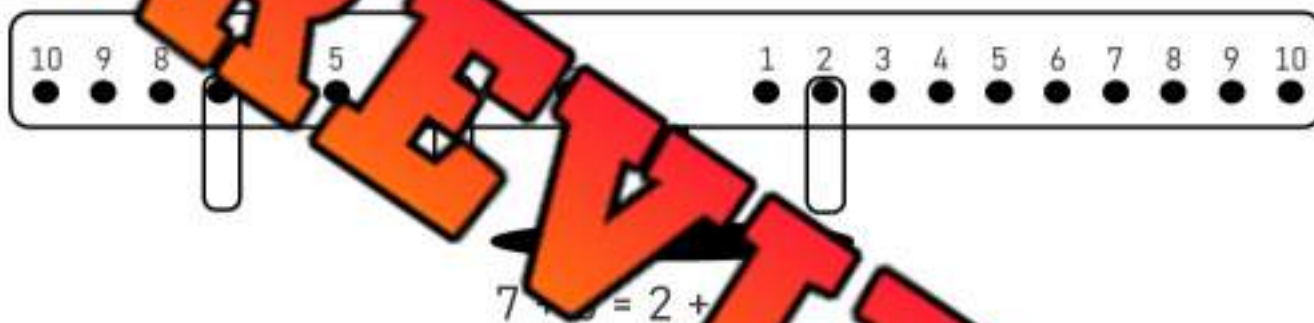
Questions

Balance the equations below

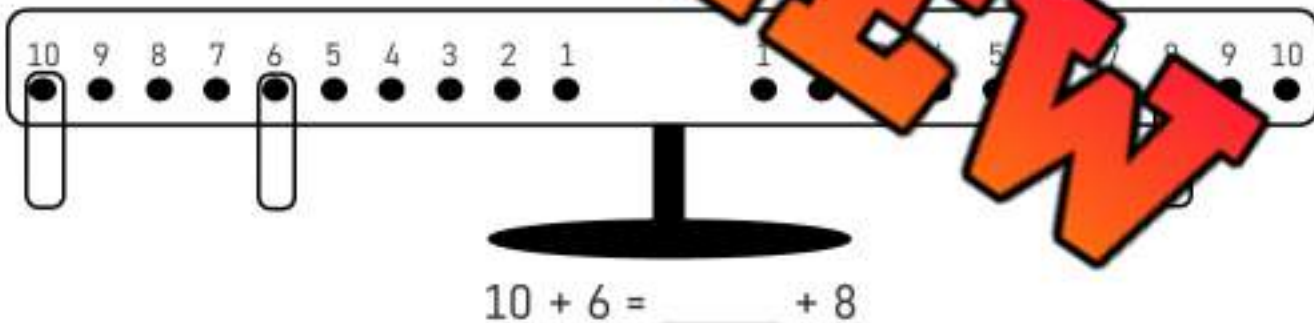
1)



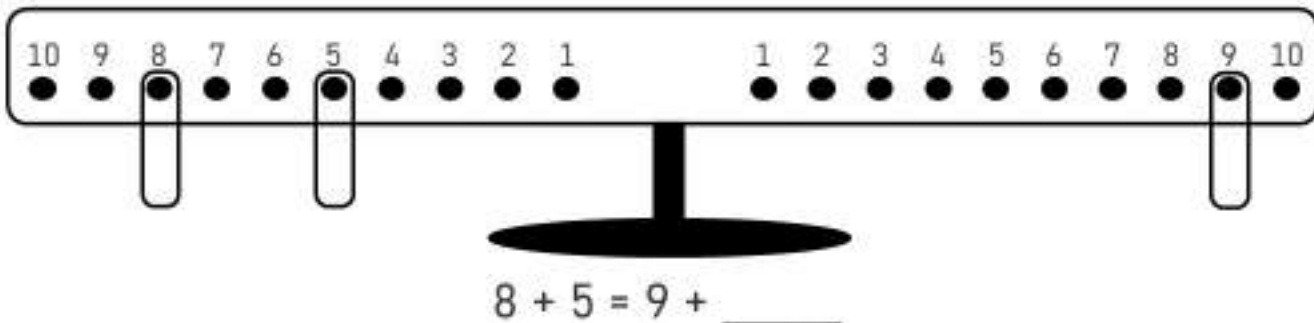
2)



3)



4)



Equalities Jeopardy

Objective

What are we learning about?

To reinforce students' understanding of balancing equations and word problems in a fun and competitive game format.

Materials: _____ you will need for the activity.

- Jeopardy board and questions
- Buzzer or bell



Instructions

How you will complete the activity

1. Print the Jeopardy board on the next page.
2. Divide the class into two teams.
3. Ask one team to go first by selecting a dollar value.
4. Read the question aloud from the dollar value.
5. The first team to ring the bell or buzzer gets to answer.
6. If they answer correctly, award them the points. If not, another team can answer.
7. Continue the game until all questions have been answered.
8. Tally the points to determine the winning team.
9. Conclude by discussing what they learned about the topic in the questions.

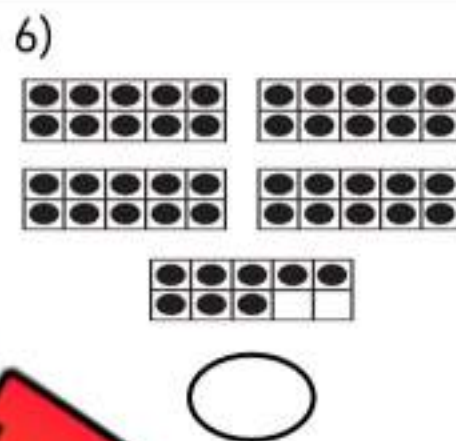
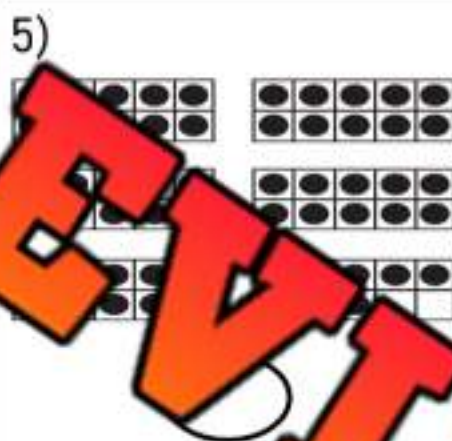
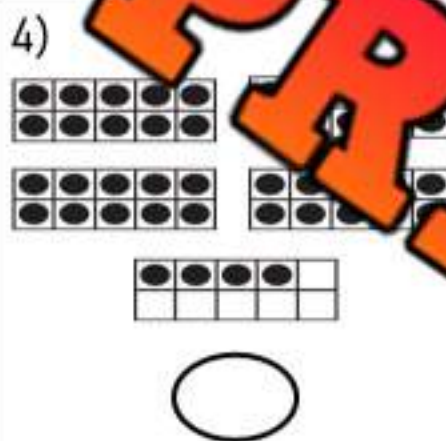
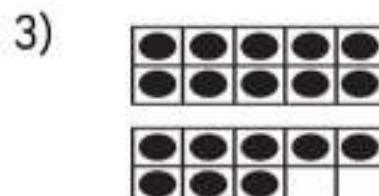
Jeopardy Questions

Ask students the questions below

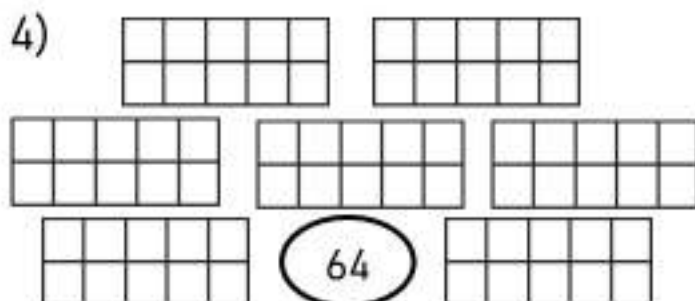
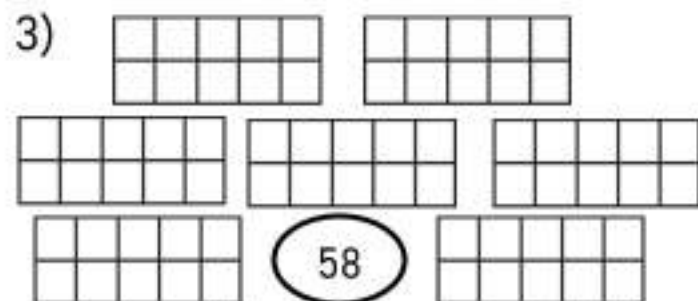
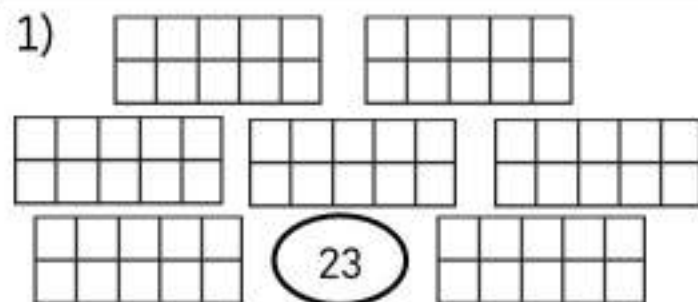
\$100	\$200	\$300	\$400	\$500
$5 + \underline{\quad} = 9$	$17 - \underline{\quad} = 12$	$6 + \underline{\quad} = 2 + 18$	A box has 16 crayons, but some are broken and only 9 can be used. How many are broken.	$5 + 4 + 3 + \underline{\quad} = 18$
$\underline{\quad} + 8 = 15$	$8 + \underline{\quad} = 15$ $\underline{\quad} = \underline{\quad}$	$8 + \bullet = 15$ $\bullet = \underline{\quad}$	$7 + 2 + 1 + \underline{\quad} = 20$	Mary has 8 dolls. She buys some more and gives 5 to her friend. She has 10 left. How many did she buy?
$\underline{\quad} + 7 = 14$	$2 + 3 + \underline{\quad} = 10$	John has 5 toy cars. Liam has 4 more toy cars than John. How many toy cars does he have now?	Liam has 4 more pencils than John. John has 12 pencils. How many pencils does Liam have now?	$1 + 2 + 5 + \underline{\quad} = 17$
$12 - \underline{\quad} = 8$	$3 + \underline{\quad} = 8 + 16$	I had 10 candies. I ate some and have 4 left. How many did I eat?	John has some marbles. He gets 7 more and now has 14. How many marbles did he start with?	Sam has 12 apples. She gives some to her friend. She now has 8 apples. How many did she give away?
$\underline{\quad} + 9 = 15$	$9 + \odot = 17$ $\odot = \underline{\quad}$	Sarah has some apples. She gets 5 more and has 12 total. How many apples did she start with?	Emma has some books. She buys 6 more and now has 15. How many books did she start with?	Mia has 3 fewer stickers than Sam. If Mia has 10 stickers, how many stickers does Sam have?

Counting Numbers – Ten Frames**Part 1**

How many circles are in the 10 frames

**Part 2**

Draw how many circles you see in the ten frames below



Counting Numbers – Tally Marks

= 1	= 2	= 3	= 4	= 5
= 6	= 7	= 8	= 9	= 10

Part 1 Count the tally marks

_____	_____	_____	_____
_____	_____	_____	_____

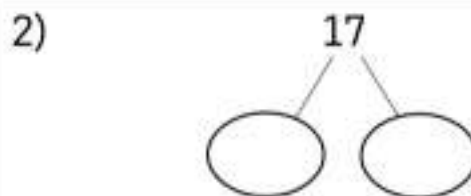
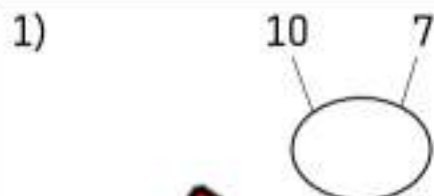
Part 2 Draw tally marks that match the number

13 =	17 =	21 =
22 =	28 =	25 =
32 =	36 =	
44 =	51 =	

Counting & Decomposing Numbers

Part 1

How many ways can you compose and decompose the number 17



3) $\square = 17 - 10$

4) $10 + \square = 17$

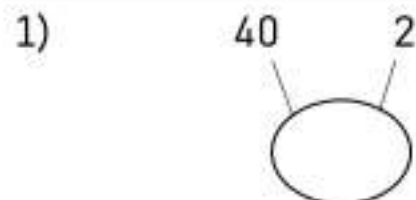
5) $17 = \square + 10$

6) $17 = 10 + \square$

Show the number 17 using 10 frames

Part 2

How many ways can you compose and decompose the number 42



3) $\square + 2 = 42$

4) $40 + \square = 42$

5) $42 = \square + 2$

6) $42 = 40 + \square$

Show the number 42 using 10 frames

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

How many ways can you decompose the number _____?

Number	23

Name: _____

How many ways can you decompose the number _____?

Number	23

Name: _____

How many ways can you decompose the number _____?

Number	23

Name: _____

How many ways can you decompose the number _____?

Number	23

















PREVIEW

Comparing Numbers

15  43	86  54	77  77
---	---	---

Part 1

Circle the correct alligator

1) 2  21	2) 51    56
3) 78    94	4) 98    99
5) 48    48	6) 3    51

Part 2

Compare the following numbers using < or >

1) 15 <input type="text" value="<"/> 23	2) 36 <input type="text"/> 36	3) 25 <input type="text"/> 43
4) 65 <input type="text"/> 23	5) 88 <input type="text"/> 49	6) 59 <input type="text"/> 94
7) 84 <input type="text"/> 87	8) 44 <input type="text"/> 44	9) 78 <input type="text"/> 79

Comparing Numbers



Part 1

Write a number between 1 and 100 that fits the description


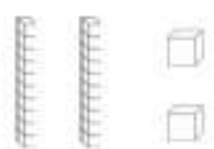
1) Number greater than 42	2) Number less than 67
3) Number less than 29	4) Number equal to 84
5) Number greater than 77	6) Number less than 12
7) Number equal to 97	8) Number greater than 95

Part 2

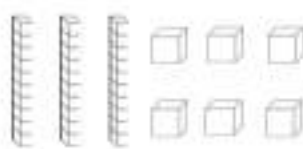

Write a number between _____ and 100 that will make sense

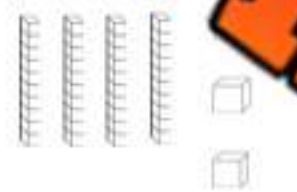

1) $20 > \underline{\hspace{2cm}}$	2) $64 > \underline{\hspace{2cm}}$	3) $\underline{\hspace{2cm}} < 1$
4) $85 = \underline{\hspace{2cm}}$	5) $\underline{\hspace{2cm}} < 37$	6) $20 > \underline{\hspace{2cm}}$
7) $\underline{\hspace{2cm}} > 89$	8) $97 < \underline{\hspace{2cm}}$	9) $\underline{\hspace{2cm}} = 92$
10) $85 = \underline{\hspace{2cm}}$	11) $\underline{\hspace{2cm}} < 37$	12) $20 > \underline{\hspace{2cm}}$



Comparing Base Ten Blocks**Questions**Compare the number of base ten blocks below using $<$ $>$ $=$

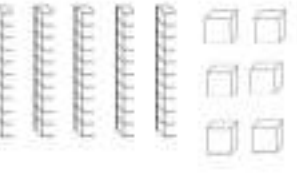
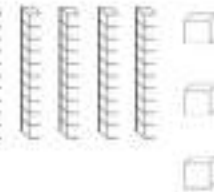
	
_____	_____
<input type="text"/>	


22



	
_____	_____
<input type="text"/>	



	
_____	_____
<input type="text"/>	

	
_____	_____
<input type="text"/>	



	
_____	_____
<input type="text"/>	

	
_____	_____
<input type="text"/>	

	
_____	_____
<input type="text"/>	









	
_____	_____
<input type="text"/>	

Comparing Money


 <
 

Questions

Count the money below and decide which amount is larger

 _____	 _____
 _____	 _____
 _____	 _____
 _____	 _____

Ordering Numbers From Least to Greatest**5**5, 24, 9, 16
Least to Greatest
5, 9, 16, 24**Questions**

Order the numbers below from least to greatest

1. 8, 11, 6

____, ____

2. 9, 5, 18, 22

____, ____

3. 41, 22, 1

____, ____

4. 18, 43, 26, 31

____, ____

5. 75, 43, 36, 57

____, ____

6. 55, 41

____, ____

7. 86, 53, 87, 95

____, ____

8. 73, 68, 77, 89

____, ____

9. 91, 94, 92, 99

____, ____

10. 87, 83, 88, 95

____, ____

Even and Odd Numbers

An **even** number is a number that can be shared into two equal-sized groups. An **odd** number cannot be shared into two equal-sized groups. Even numbers can be split in half while odd numbers can't be.

Even Numbers: 2, 4, 6, 8, 10...

Odd Numbers: 1, 3, 5, 7, 9...

Direction: Colour only the even numbers

PREVIEW

3 18 4
7 16 71 12 24
7 9 6
36 76 14 5
13 88 17
41 48 55 62
38 35 11 22 49 58

Name: _____

Even and Odd

Questions

Write **even** or **odd** beside the numbers

20

1)	7	Odd
2)		
3)		
4)	8	
5)	22	
6)	16	
7)	15	
8)	19	
9)	23	
10)	28	

11)	44	Even
12)	32	
13)	38	
14)	33	
15)	7	
16)	53	
17)	67	
18)	60	
19)	70	
20)	84	

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Circle even or odd beside the numbers

1)		Odd	Even
2)	24		Even
3)		Odd	
4)	9	Odd	
5)	54		Even
6)	99	Odd	Even
7)	82	Odd	Even

Name: _____

Circle even or odd beside the numbers

1)	17	Odd	Even
2)	24	Odd	Even
3)	6	Odd	Even
4)	9	Odd	Even
5)	54	Odd	Even
6)	99	Odd	Even
7)	82	Odd	Even

Name: _____

Circle even or odd beside the numbers

1)	17	Odd	Even
2)	24	Odd	Even
3)	6	Odd	Even
4)	9	Odd	Even
5)	54	Odd	Even
6)	99	Odd	Even
7)	82	Odd	Even

Name: _____

Circle even or odd beside the numbers

1)	17	Odd	Even
2)	24	Odd	Even
3)	6	Odd	Even
4)	9	Odd	Even
5)	54	Odd	Even
6)	99	Odd	Even
7)	82	Odd	Even

Name: _____

Even and Odd

Part 1

Write even numbers in the stars below



PREVIEW



STARS

Part 2

Write odd numbers in the stars below



ODD STARS

Name: _____

Even and Odd

Questions

Circle the odd numbers in blue and the even numbers in green

71 28 12 20 68

4 22 50 83 41

1 60 10 80

8 84 17

33 23 61 64

16 52 9 76

31 34 74 86 86

19 53 6 51 5

71 44 62 91 98

45 91 93 47 63

PREVIEW

Activity Title: Odd and Even Number Hunt**Objective**

What are we learning about?

To help students differentiate between odd and even numbers through an engaging and interactive activity.

Materials

What you will need for the activity.

- Colored paper and index cards
- Marker
- Tape or chalk
- Large open space (indoors or outdoors)

Even

96

Odd

88

Instructions

How you will complete the activity.

1. Cut out the index cards provided
2. Use tape or chalk to create two large circles on the floor or wall, labeling one "Odd" and the other "Even."
3. Spread the numbered cards randomly around the room or outdoor space.
4. Divide the students into small groups.
5. On your signal, students search for numbered cards and decide if the number is odd or even.
6. Students then run to the appropriate circle and place their card in it.
7. After all cards are placed, gather the students and review each number, asking if it's odd or even and why.
8. Discuss patterns in odd and even numbers (e.g., even numbers end in 0, 2, 4, 6, 8; odd numbers end in 1, 3, 5, 7, 9).

Labels

Cut out the labels below and place them in a circle, like a hula-hoop

PODD
PREVIEW
EVER

Index Cards

Cut out the index cards below

57

11

83

35

49

14

92

23

78

64

5

88

PREVIEW

Index Cards

Cut out the index cards below

29

99

7

68

33

54

25

86

42

91

32

61

PREVIEW

Name: _____

Count by 2s to 100



Part 1

Count by 2s to 100

2	4			10		14		18	
		26		30			36		40
42			48		52			58	
	64				74				80
		86				96			

Part 2

Fill in the blanks counting by 2s

1	3	5			11		13		19
			27	29				37	39
	43	45			51		55		
61			67			73		77	79
81			87		91			97	

Name: _____

Count Backwards by 2s from 100

Directions

Count by 2s backwards to the number 1 starting at number 99



99		93		89				81
----	--	----	--	----	--	--	--	----

59		53		49			45	39
----	--	----	--	----	--	--	----	----

	53				45			39
--	----	--	--	--	----	--	--	----

15				23		27		33
----	--	--	--	----	--	----	--	----

	9			3	
--	---	--	--	---	--

PREVIEW



Name: _____

Count by 10s to 100

Part 1 Count by 10's to 100

GO

END

40

10

PREVIEW

Part 2 Fill in the blanks counting by 10s

10, 20, 30, _____, _____, _____, _____, _____

40, _____, _____, 70, _____, _____, _____

_____, _____, 20, _____, _____, _____, _____

_____, _____, _____, _____, _____, _____, 100

Counting by 10s to 100

Part 1

How many ten-dollar bills do you need to make \$100?



Answer : _____

Part 2

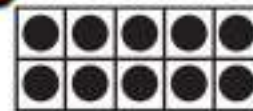
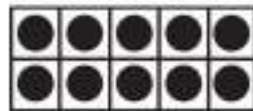
Count by 10s using the number line

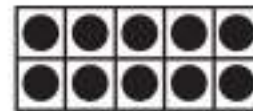
10

60

Part 3

Count by 10s to 100 using the 10-frames





Count By 10's Starting With Different Numbers

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Directions

Fill in the missing numbers. Skip counting by 10s.

1)	7	17	27	37					
2)	2	12	22	32	42				
3)	5	15	25	35	45				
4)	1	11	21	31	41				
5)	3	13	23	33	43				
6)	8	18	28	38	48				
7)	9	19	29	39	49				
8)	6	16	26	36	46				

Title: Skip Counting Fun!**Objective**

What are we learning about?

To help students master skip counting (by 2s, 5s, and 10s) in an interactive and engaging way using whole numbers up to 100.

Materials

What you will need for the activity.

- One piece of tape or chalk
- Large open space (either indoors or outdoors)

**Instructions**

How you will do the activity

1. Use the tape or chalk to draw a line on the floor. Place markers at significant points, such as every 20, depending on the space available.
2. Label the starting point as 0 and the ending point as 100.
3. Divide the students into small groups, each group to choose a different skip counting sequence (by 2s, 5s, or 10s).
4. Students stand at the 0 mark. On your signal, the students jump along the line, landing on the number that corresponds to their skip counting sequence.
5. For example, a student counting by 2s will jump to 2 or where they think the 2 would be, then they jump to 4, and so on. They will need to space their jumps to correspond with the markers you place down (example: 5 jumps to get to 10 if skip counting by 2).
6. Students can shout out the number they land on to reinforce the counting sequence and engage auditory learning.
7. Each round can be timed, or you can see which group can reach their endpoint first without errors in counting.

Name: _____

Markers

Optional - Cut out the markers below and lay them on the tape

10

20

30

40

50

60

70

80

90

100

20

40

80

100

5

10

15

25

30

35

40

45

50

55

60

65

70

75

80

85

90

95

100

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Count by 5s forwards.

25

Count by 5s backwards.

45

Count by 10s forwards.

67

77

Count by 10s backwards.

83

73

Name: _____

Count by 5s forwards.

25

30

Count by 5s backwards.

45

Count by 10s forwards.

67

77

Count by 10s backwards.

83

73

Name: _____

Count by 1s forwards.

877

878

Count by 5s backwards.

45

Count by 10s forwards.

67

77

Count by 10s backwards.

83

73

Name: _____

Count by 1s forwards.

877

878

Count by 5s backwards.

45

Count by 10s forwards.

67

77

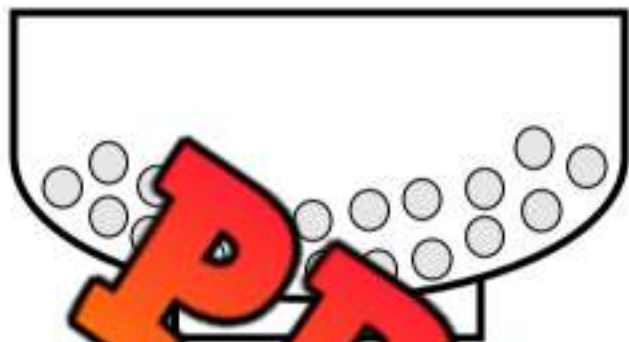
Count by 10s backwards.

83

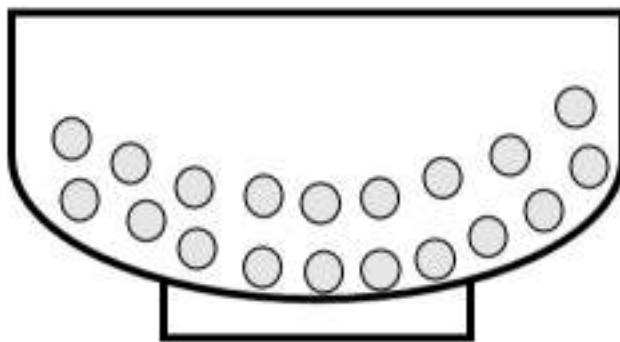
73

Estimating How Many...**Questions**

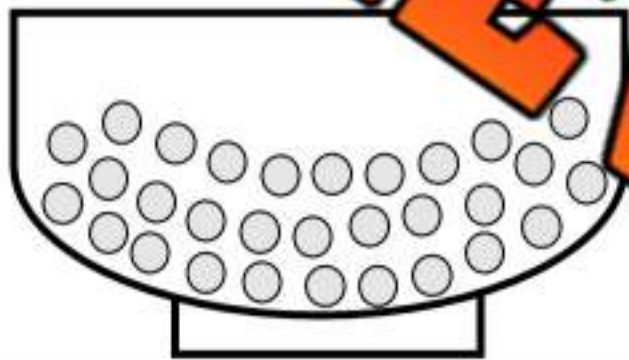
Estimate how many cereal pieces are in each bowl without counting. Then count them to check your estimate.



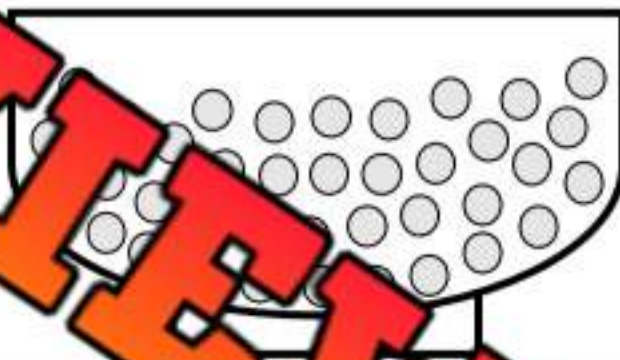
Estimate: About _____ pieces
Actual: There are _____ pieces



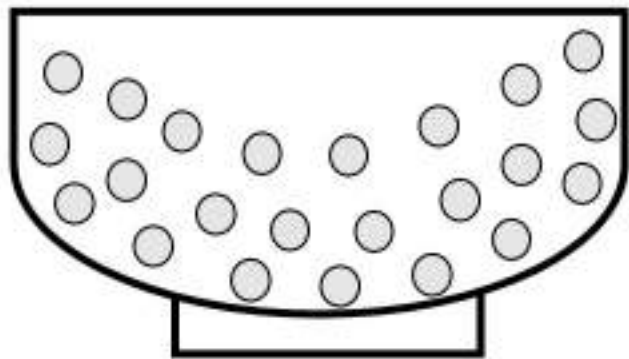
Estimate: About _____ pieces
Actual: There are _____ pieces



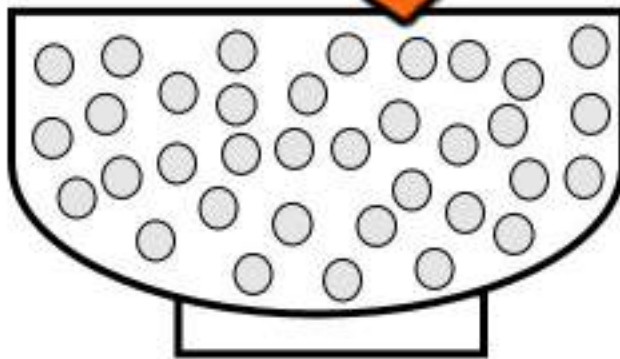
Estimate: About _____ pieces
Actual: There are _____ pieces



Estimate: About _____ pieces
Actual: There are _____ pieces



Estimate: About _____ pieces
Actual: There are _____ pieces



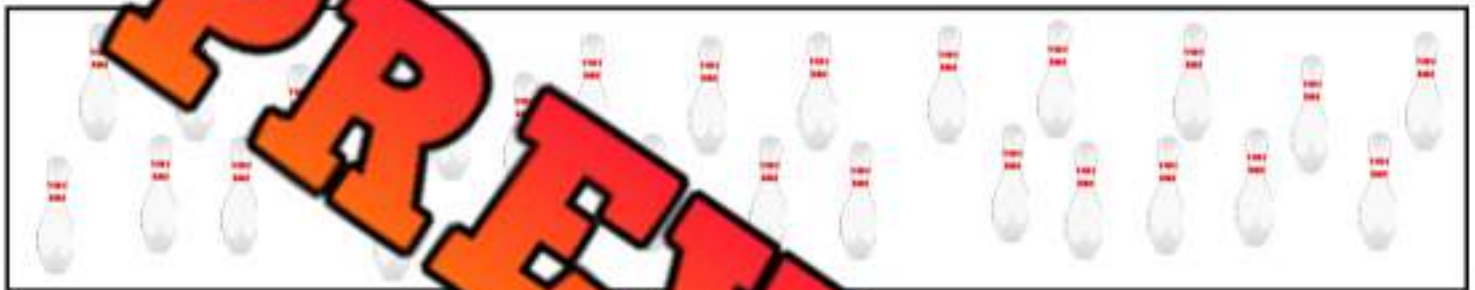
Estimate: About _____ pieces
Actual: There are _____ pieces

Estimating How Many...

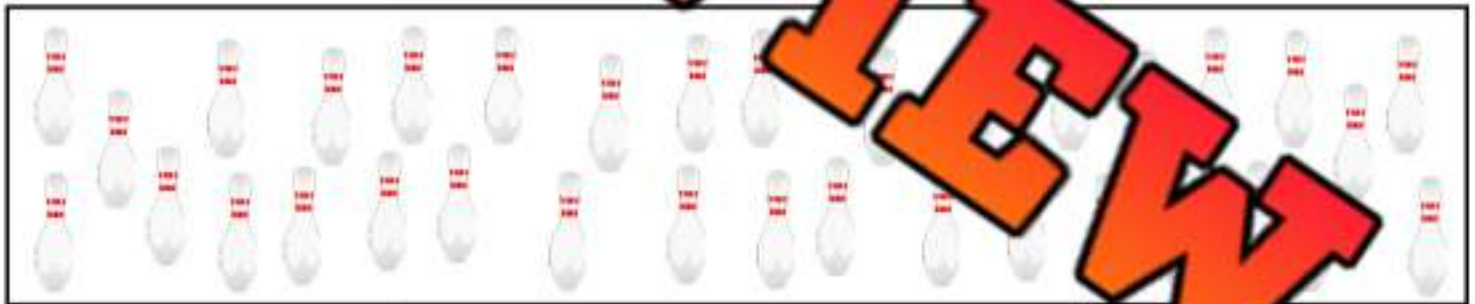


Count how many bowling pins there are in the box above _____

Questions Estimate how many caps are in the box using the referent above



Estimate: About _____ pins
Actual: There are _____ pins



Estimate: About _____ pins
Actual: There are _____ pins



Estimate: About _____ pins
Actual: There are _____ pins

PREVIEW

Name: _____

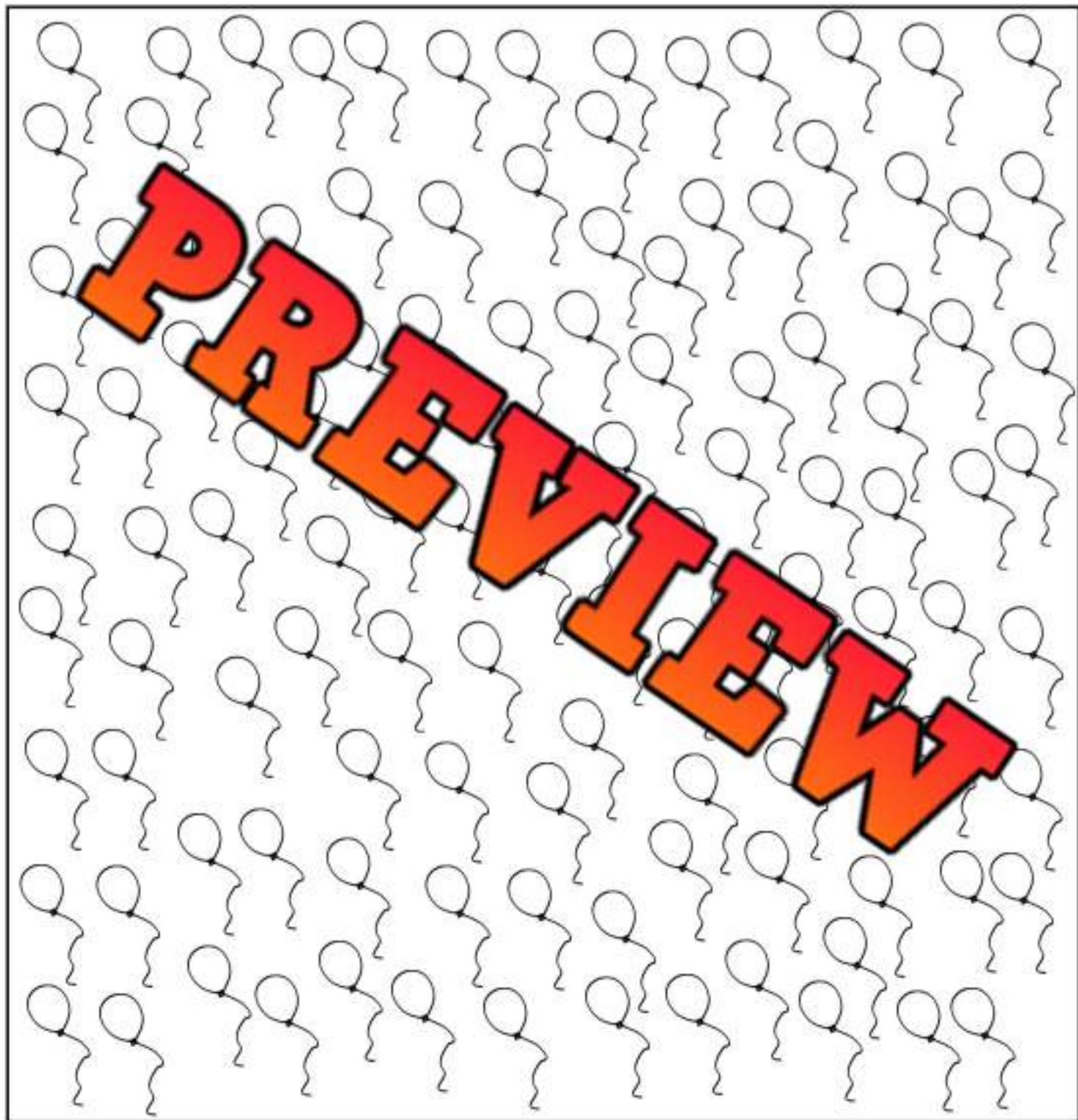
78

Curriculum Connection
N2.1

Estimating Larger Amounts

Questions

How many balloons do you think are in the box?



Estimate: About _____ balloons

Actual: There are _____ balloons

Title: "Estimation Station: Count & Confirm"

Objective

What are we learning about?

To enhance students' ability to estimate and verify quantities up to 100 by comparing their estimates with actual counts they perform themselves.

Materials

What you will need for the activity.

- Several jars or containers filled with different quantities of items (e.g., marbles, beans, small blocks)
- Paper and pencil for recording estimates
- Workspace for trays for counting



Instructions

How to complete the activity

1. Arrange the jars on different tables in the room, each filled with a distinct quantity of items, ensuring none contain more than 100 items.
2. Divide the students into small groups, assigning each group to a starting station.
3. Provide each group with a paper and pencil. Instruct them to estimate the number of items in their jar without counting them individually and then record their guess.
4. Rotate the groups through each station, allowing about three minutes for each group to make their estimates.
5. After each group has estimated the contents of every jar, assign each group to one jar for the counting phase.
6. Provide mats or trays for groups to carefully empty their jars and count the items. Encourage them to use strategic counting methods, such as making groups of ten or one hundred, to count the items efficiently.
7. Once counted, each group reports the actual number to the class, and compare these numbers with the estimates previously made.
8. Discuss the results, focusing on the accuracy of the estimates and the strategies used for both estimating and counting.

Think

After discussing with your group, write how many objects are in each jar.

Jar Number	Estimate	Actual Count
1		
2		
6		

Questions

Answer the questions below

1) How accurate were your estimates compared to the actual counts?

2) What strategy did you find most effective for counting large numbers of items?

3) Which jar's contents were the most challenging to estimate? Why?

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Estimate how many bowling pins are in the box. Then count them to check.

**Estimate:** About _____ pins**Actual:** There are _____ pins

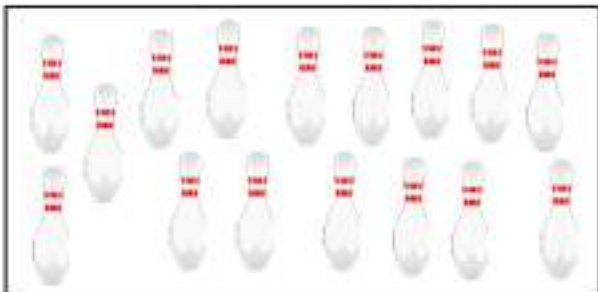
Name: _____

Estimate how many bowling pins are in the box. Then count them to check.

**Estimate:** About _____ pins**Actual:** There are _____ pins

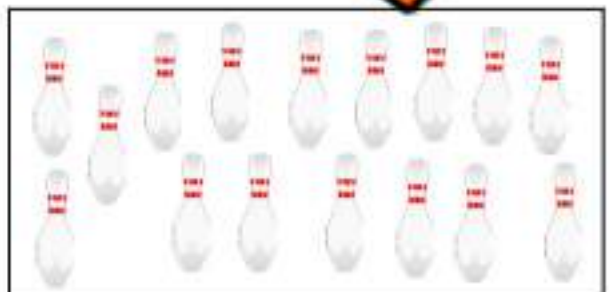
Name: _____

Estimate how many bowling pins are in the box. Then count them to check.

**Estimate:** About _____ pins**Actual:** There are _____ pins

Name: _____

Estimate how many bowling pins are in the box. Then count them to check.

**Estimate:** About _____ pins**Actual:** There are _____ pins

Name: _____

82

Number Quiz

Part 1 Fill in the place value charts below

1) 92

Tens	Ones

2) 63

Tens	Ones

3) 77

Tens	Ones

Part 2 What place value is the underlined number?

1) 35

3) 15

4) 51

6) 94

Part 3 How many blocks do you count?

1. 



2. 



3. 



Part 4 What is the standard form of the numbers below?

1) $50 + 8$

2) $30 + 6$

3) $80 + 2$

4) $60 + 7$

Part 5

What is the expanded form of the numbers below?

1) 75

2) 53

3) 41

4) 64

Part 6

Write the standard form of the written words below

1) Thirty-six

2) Eighty-eight

Part 7

Write the written form of the numbers below

1) 24

2) 67

Part 8

Solve the riddles

- 1) Which number has 3 more tens than ones and 5 ones.
- 2) Which number has 6 ones, and 3 more tens than ones.

Part 9

Compare the following numbers < > =

1)

75 93

2)

42 40

3)

73 73

Part 10

Order the numbers below from least to greatest

56

78, 89, 85, 73, 82

Part 11

Order the numbers below from least to greatest

41, 34, 36, 47, 55

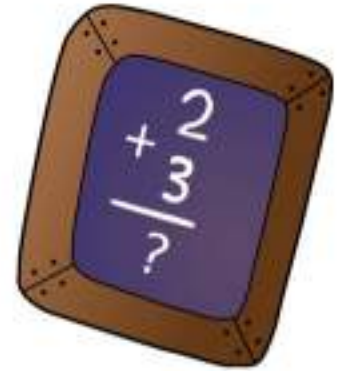
76, 79, 73, 66

Part 12

Write odd or even beside the numbers below

1)	15	
2)	21	
3)	28	
4)	41	
5)	48	

6)	55	
7)	68	
8)	81	
9)	88	
10)	93	



N.2.2

Demonstrate
understanding of addition
(limited to 1 and 2-digit
numerals) with answers to
100 and the corresponding
subtraction



Mental Math Strategy – Counting On

1. Circle the higher number on the hundreds chart/number line.
2. Count up by the other number and write down the answer

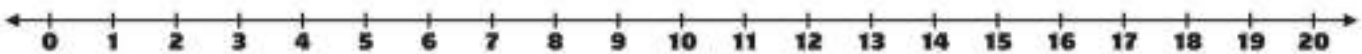
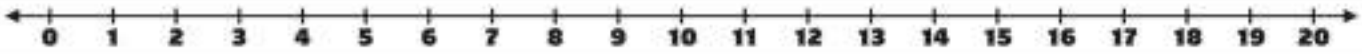
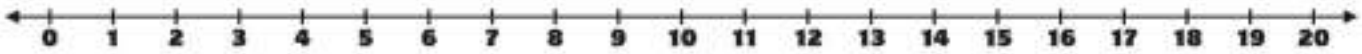
Part 1

Use the chart to answer the question

1) $4 + 5 =$ _____	2) $8 + 6 =$ _____	3) $8 + 3 =$ _____
		
4) $7 + 4 =$ _____	5) $3 + 6 =$ _____	6) $2 + 5 =$ _____
		
7) $8 + 8 =$ _____	7) $7 + 7 =$ _____	9) $9 + 4 =$ _____
		
10) $9 + 9 =$ _____	11) $5 + 6 =$ _____	$7 + 8 =$ _____
		

Part 2

Use the number line to find the answer

1) $3 + 9 =$ _____

2) $6 + 4 =$ _____

3) $5 + 9 =$ _____


Mental Math Strategy – Making Tens**Directions:**

1. Create a ten by taking some from the other number.
2. Add the remaining amount.

1. $7 + 3 =$

$10 + 2 =$

2) $9 + 6 =$



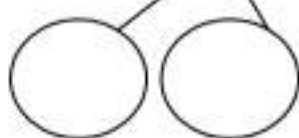
$=$

3) $8 + 9 =$



$+ =$

4) $8 + 8 =$



$+ =$

5) $9 + 7 =$



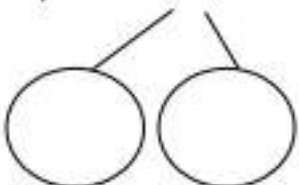
$+ =$

6) $9 + 8 =$



$+ =$

7) $8 + 12 =$



$+ =$

8) $9 + 8 =$



$+ =$

9) $8 + 7 =$



$+ =$

Mental Math Strategy – Making Doubles**Directions:**

1. Decide which number you will double and add those numbers together.
 2. Subtract or add the remaining amount
- *** if you added to the original number, subtract at the end. If you subtracted from the original number, then add at the end.

 9
 10

$$5 + 6$$
$$5 + 5$$
$$10 + 1 = 11$$

$$3 + 4$$

$$4 + 5$$

$$11 + 10$$

$$20 + 21$$

$$15 + 16$$

$$29 + 30$$

$$31 + 30$$

$$50 + 51$$

PREVIEW

Counting – Bridging over 100

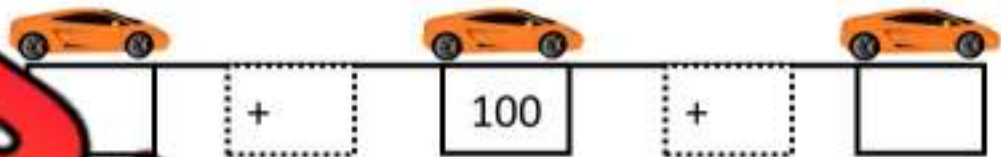
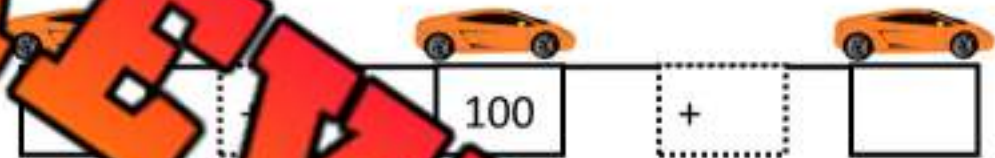
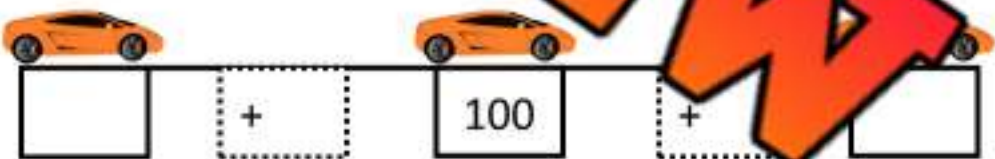
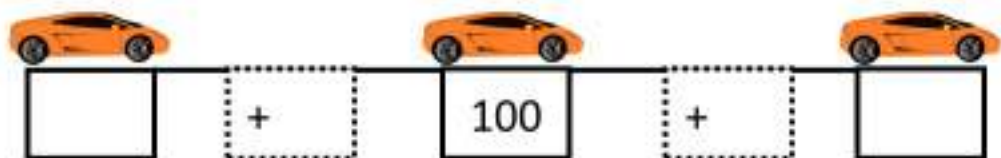
$94 + 8$



Questions

Fill in the blanks by bridging over 100

1) 9

2) $93 + 9$ 3) $95 + 8$ 4) $99 + 6$ 5) $94 + 9$ 6) $96 + 7$ 

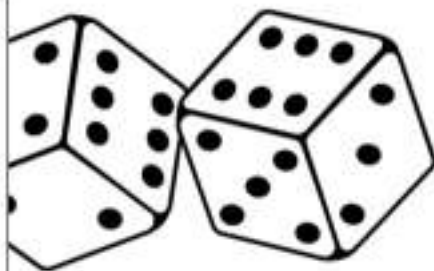
Activity: "Bridging Over 100 with Dice Rolls"

Objective What are we learning about?

Students will learn how to add numbers to a two-digit number to surpass the 100 mark by breaking the addition into steps using dice rolls.

Materials What you will need for the activity.

- Large number line from 80 to 120 (can be drawn on the board or a large sheet of paper)
- Ten index cards with numbers between 80 and 99
- Small sticks or markers
- Paper and pencil
- Counters or small objects



Instructions How you will do the activity.

1. Gather students in a circle around the large number line.
2. Explain that they will be practicing how to bridge over 100 on the number line and dice.
3. The teacher selects an index card with a number between 80 and 99 and places a marker on this starting number on the number line.
4. Explain that students will take turns rolling two dice and adding the sum to the starting number.
5. The first student rolls the dice, adds the sum to the starting number, and moves the marker along the number line accordingly.
6. If the new total surpasses 100, break the addition into two steps: first, reach 100, and then add the remaining number. For example, if starting at 92 and rolling an 11, move to 100 first (+8) and then add the remaining 3.
7. Record each new number on a piece of paper or board.
8. Continue taking turns until everyone has had a chance to roll the dice and contribute to bridging over 100.
9. After the activity, have students return to their desks to reflect and draw.

Index Cards

Cut out the index cards below

84

93

81

89

88

91

88

96

85

PREVIEW

Index Cards

Cut out the index cards below

83

92

87

80

95

99

82

86

-

PREVIEW

Name: _____

97

Curriculum Connection
N2.2**Math Facts - Adding 0 and 5****Questions**

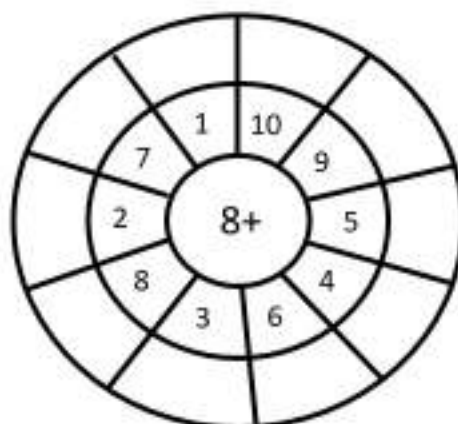
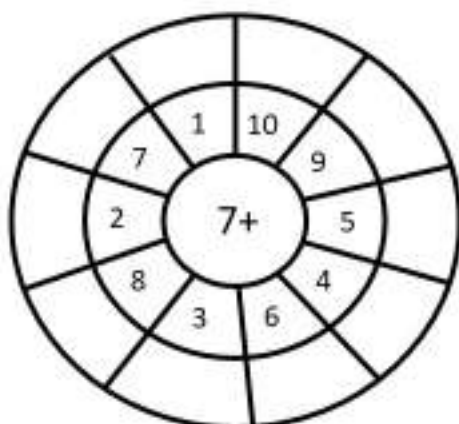
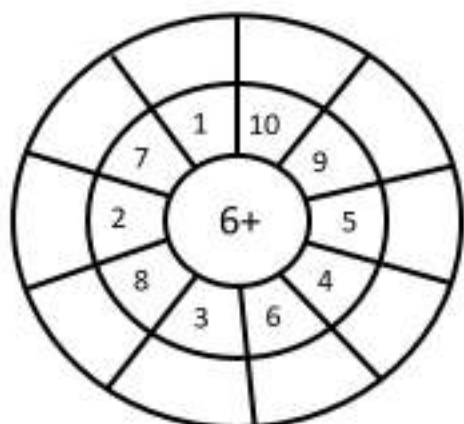
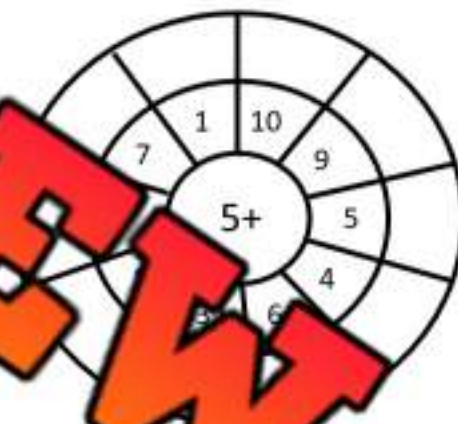
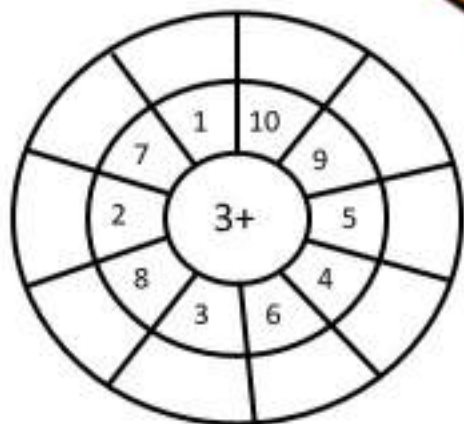
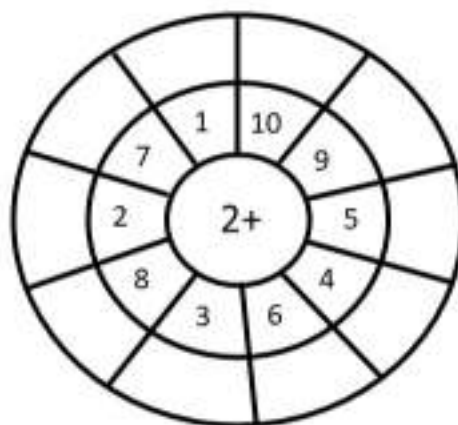
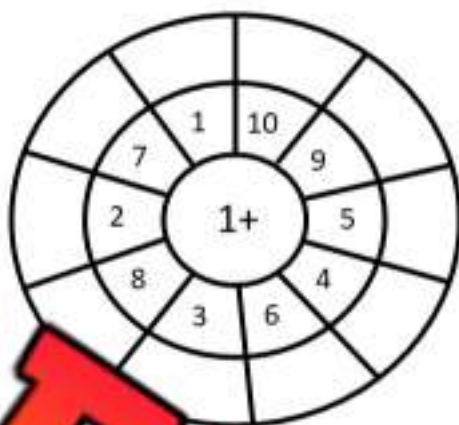
Solve as many problems as you can before the time runs out!

36

$\begin{array}{r} 6 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 3 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ + 3 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ + 5 \\ \hline \end{array}$		$\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ + 3 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 6 \\ \hline \end{array}$
$\begin{array}{r} 6 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 7 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 8 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 0 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ + 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 7 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ + 6 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ + 0 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ + 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ + 6 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 7 \\ \hline \end{array}$
$\begin{array}{r} 4 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 3 \\ \hline \end{array}$

Bullseye Math Facts**Questions**

Fill in the outer layer of the bullseye



Adding Multiples of 10**Part 1**

Answer the questions below

1) 30 + 20 =

2) 50 + 30 =

3) 10 + 40 =

4) 30 + 60 =

5) 70 +

6) 80 + 10 =

7) 40 + 40 =

8) 50 + 20 =

9) 60 + 40 =

10) 50 + 70 =

Part 2

Answer the questions below

- 1) Molly has \$60 in her bank account. She is given \$20. How much does she have now?



- 2) Zane drove 40 km to work and 40 km back home. How many total km did he drive?



Adding Multiples of 10

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Questions

Answer the questions

1) $52 + 20 =$

2) $21 + 30 =$

3) $38 + 40 =$

4) $39 +$

5) $41 + 50 =$

6) $83 + 10 =$

7) $68 + 30 =$

8) $54 + 40 =$

9) $17 + 40 =$

10) $77 + 20 =$

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Solve the problems below

a)

1)	2)
18	60
+ 50	+ 20

b) Sophia has 25 stickers in her collection. She wins 30 more in a contest. How many stickers does she have now?

Name: _____

Solve the problems below

a)

1)	2)
18	60
+ 50	+ 20

b) Sophia has 25 stickers in her collection. She wins 30 more in a contest. How many stickers does she have now?

Name: _____

Solve the problems below

a)

1)	2)
18	60
+ 50	+ 20

b) Sophia has 25 stickers in her collection. She wins 30 more in a contest. How many stickers does she have now?

Name: _____

Solve the problem

a)

1)	2)
18	60
+ 50	+ 20

b) Sophia has 25 stickers in her collection. She wins 30 more in a contest. How many stickers does she have now?

Part Part Whole – Numbers To 18**Questions**

How do the parts below equal the whole at the top

1)

11

2)

14

8

3)

4)

6

5

5)

12

7

6)

17

7)

10

5

8)

18

12

9)

14

8

10)

9

8

PREVIEW

Part Part Part Whole – Numbers To 18**Questions**

How do the parts below equal the whole at the top

1)

12		
	5	

2)

11		
	2	6

3)

5		

4)

5	5	5

5)

15		
7		4

6)

		6

7)

9	4	1

8)

15		
9		4


9)


17		
6	6	

10)

18		
11		6


Adding Money







$$22 + 31 = 53$$




Questions


Count the money below and decide which amount is larger



$$+ \quad \quad \quad + \quad \quad \quad = \quad \quad \quad$$



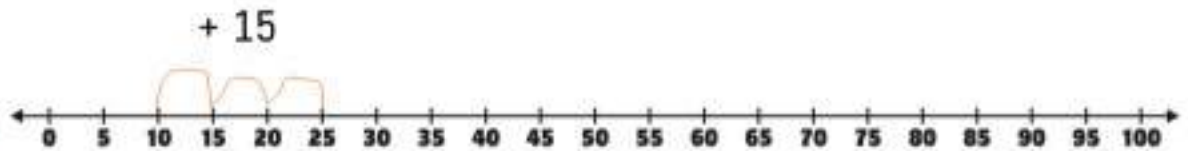
$$+ \quad \quad \quad + \quad \quad \quad = \quad \quad \quad$$



$$+ \quad \quad \quad + \quad \quad \quad = \quad \quad \quad$$



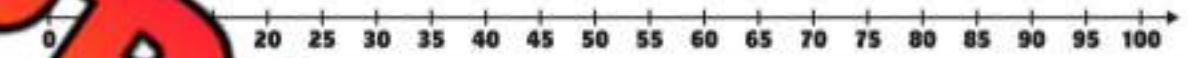
$$+ \quad \quad \quad + \quad \quad \quad = \quad \quad \quad$$


Number Line Addition**Questions**Use the number line to add the numbers below

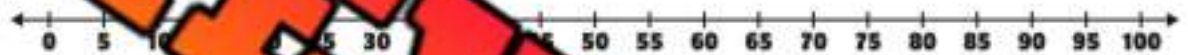
$10 + 15 = 25$



$20 + 10 = \underline{\quad}$



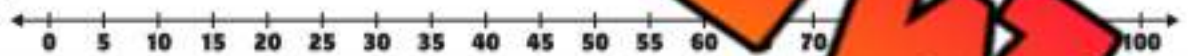
$25 + 10 = \underline{\quad}$



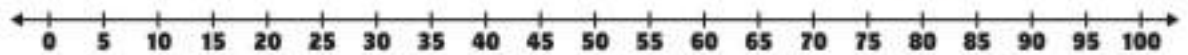
$40 + 15 = \underline{\quad}$



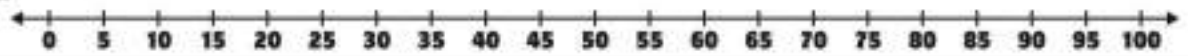
$50 + 20 = \underline{\quad}$



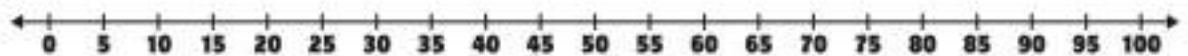
$70 + 30 = \underline{\quad}$



$40 + 50 = \underline{\quad}$



$80 + 10 = \underline{\quad}$



Commutative Property of Addition

Questions

Investigate the results of adding when changing the order of the numbers

1)

$4 + 8 = \underline{\quad}$

$8 + 4 = \underline{\quad}$

8)

$6 + 2 = \underline{\quad}$

$2 + 6 = \underline{\quad}$

2)

$9 + 5 = \underline{\quad}$

$5 + 9 = \underline{\quad}$

9)

$9 + 8 = \underline{\quad}$

$8 + 9 = \underline{\quad}$

3)

$3 + 6 = \underline{\quad}$

$6 + 3 = \underline{\quad}$

10)

$8 + 9 = \underline{\quad}$

$9 + 7 = \underline{\quad}$

4)

$4 + 5 = \underline{\quad}$

$5 + 4 = \underline{\quad}$

11)

$5 + 9 = \underline{\quad}$

$9 + 5 = \underline{\quad}$

5)

$2 + 1 = \underline{\quad}$

$1 + 2 = \underline{\quad}$

12)

$9 + 4 = \underline{\quad}$

$4 + 9 = \underline{\quad}$

6)

$7 + 8 = \underline{\quad}$

$8 + 7 = \underline{\quad}$

13)

$3 + 8 = \underline{\quad}$

$8 + 3 = \underline{\quad}$

7)

$4 + 6 = \underline{\quad}$

$6 + 4 = \underline{\quad}$

14)

$7 + 2 = \underline{\quad}$

$2 + 7 = \underline{\quad}$

Adding – No Borrowing**Questions**

Use the standard algorithm to solve the addition problems below

1)	Tens	Ones
+	8	1
<hr/>		

2)	Tens	Ones
	3	4
+	5	4
<hr/>		

3)	Tens	Ones
	7	5
+	1	2
<hr/>		

4)	Tens	Ones
	6	5
+	2	3
<hr/>		

5)	Tens	Ones
	5	8
+	4	3
<hr/>		

6)	Tens	Ones
	8	7
+	1	1
<hr/>		

7)	Tens	Ones
	7	3
+	2	3
<hr/>		

8)	Tens	Ones
	4	2
+	4	7
<hr/>		

9)	Tens	Ones
	4	9
+	5	0
<hr/>		

Inverse Operations – Checking Answers**Questions**

Check your answer by using the inverse operation

$1) 5 + 2 = \underline{7} \quad \longrightarrow \quad \underline{7} - \underline{2} = \underline{5}$

$2) 9 + \quad \longrightarrow \quad \underline{\quad} - \underline{\quad} = \underline{\quad}$

$3) 4 + 7 = \quad \longrightarrow \quad \underline{\quad} - \underline{\quad} = \underline{\quad}$

$4) 12 + 4 = \underline{\quad} \longrightarrow \quad \underline{\quad} - \underline{\quad} = \underline{\quad}$

$5) 15 + 6 = \underline{\quad} \longrightarrow \quad \underline{\quad} - \underline{\quad} = \underline{\quad}$

$6) 21 + 8 = \underline{\quad} \longrightarrow \quad \underline{\quad} - \underline{\quad} = \underline{\quad}$

$7) 35 + 9 = \underline{\quad} \longrightarrow \quad \underline{\quad} - \underline{\quad} = \underline{\quad}$

$8) 42 + 7 = \underline{\quad} \longrightarrow \quad \underline{\quad} - \underline{\quad} = \underline{\quad}$

$9) 54 + 6 = \underline{\quad} \longrightarrow \quad \underline{\quad} - \underline{\quad} = \underline{\quad}$

Inverse Operations – Checking Answers**Questions**

Check your answer by using the inverse operation

$$\begin{array}{r} 36 \\ + 12 \\ \hline 48 \end{array}$$



$$\begin{array}{r} 48 \\ - 12 \\ \hline 36 \end{array}$$

**PREVIEW**

$$\begin{array}{r} 56 \\ + 35 \\ \hline \end{array}$$



$$\begin{array}{r} 67 \\ + 22 \\ \hline \end{array}$$



$$\begin{array}{r} 48 \\ + 45 \\ \hline \end{array}$$



Adding - Word Problems (Up To 18)**Questions**

Solve the following addition questions. Tip: draw pictures to help!

1) Rebecca has \$10 in her wallet. She finds \$5 on the ground. How much money does she have now?



2) Kennedy has 10 points in a game she is playing. She gets 6 more points. How many total points does she have now?



3) Scott scores 14 goals in a hockey tournament. He scores 5 more goals in the last game. How many total goals did he score?



4) Luke ran 9 kilometres on Monday and 7 kilometres on Tuesday. How many total kilometres did he run?



Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

a) Check your answer by using the inverse operation

$10 + 6 = \underline{\quad}$	41	\rightarrow
\downarrow	$+ 26$	
$\underline{\quad} - \underline{\quad} = \underline{\quad}$		

b) Sophie had 18 pencils. She was given 22 pencils. How many pencils does she have now?

Name: _____

a) Check your answer by using the inverse operation

$10 + 6 = \underline{\quad}$	41	\rightarrow
\downarrow	$+ 26$	
$\underline{\quad} - \underline{\quad} = \underline{\quad}$		

b) Sophie had 18 pencils. She was given 22 pencils. How many pencils does she have now?

Name: _____

a) Check your answer by using the inverse operation

$10 + 6 = \underline{\quad}$	41	\rightarrow
\downarrow	$+ 26$	
$\underline{\quad} - \underline{\quad} = \underline{\quad}$		

b) Sophie had 18 pencils. She was given 22 pencils. How many pencils does she have now?

Name: _____

a) Check your answer by using the inverse operation

$10 + 6 = \underline{\quad}$	41	\rightarrow
\downarrow	$+ 26$	
$\underline{\quad} - \underline{\quad} = \underline{\quad}$		

b) Sophie had 18 pencils. She was given 22 pencils. How many pencils does she have now?

Activity: Adding Adventures: Treasure Hunt

Objective

What are we learning about?

To help students understand and practice addition through engaging word problems involving whole numbers up to 100.

Materials

What you will need for the activity.

- Sets of index cards with addition word problems
- Markers
- Small bags or containers to hold the card sets
- Optional: small prizes (or treasure)
- Tape



Instructions

How you will complete the activity

- 1) Prepare sets of index cards with different addition word problems (up to 18 and up to 100).
- 2) Hide these cards around the classroom or in a designated area, taping them under chairs, desks, or tucked into non-obvious places.
- 3) Divide the class into small teams and give each team a small bag to collect their cards.
- 4) Explain the game: each team will hunt for a card, solve the problem as quickly as they can, and return to you for verification.
- 5) Say "Go!" Each team rushes to find their first card.
- 6) When a team thinks they have the correct answer, they come back to you. If correct, they receive a small prize (or a checkmark) and move on to find the next card.
- 7) The game continues until all cards are found or you call time. The team with the most correct answers wins.
- 8) Discuss the game, focusing on the addition problems and solutions each team encountered.

Instructions

Cut out the cards below

Tom had 30 candies and received 15 more from his friend. How many candies does he have now?

Lisa bought 40 cookies and made 20 more. How many cookies does Lisa have now?

A farmer had 12 cows and buys 8 more. How many cows does the farmer have now?

Sam has 15 toy cars and gets 10 more as a gift. How many toy cars does Sam have now?

Emma has 13 flowers and picks 5 more. How many flowers does Emma have now?

Ben collects 10 rocks and finds 7 more. How many rocks does Ben have now?

Lucy has 14 crayons and buys 3 more. How many crayons does Lucy have now?

Jake has 20 marbles and wins 10 more in a game. How many marbles does he have now?

Instructions

Cut out the cards below

$18 + 9 + 6 =$

$$\begin{array}{r} 46 \\ + 15 \\ \hline \end{array}$$

$$\begin{array}{r} 24 \\ \hline \end{array}$$

$33 + 11 + 8 =$

$12 + 12 + 12 =$

$$\begin{array}{r} 5 \\ 14 \\ \hline \end{array}$$

$20 + 21 + 22 =$

$$\begin{array}{r} 55 \\ 20 \\ + 11 \\ \hline \end{array}$$

PREVIEW

Instructions

Cut out the cards below

Nina has 8 dolls and gets 6 more for her birthday. She then finds 2 more in her closet. How many dolls does she have now?

Carlos buys 35 pencils and finds 8 more in his drawer. At school, his teacher gives him 10 more pencils. How many pencils does he have now?

Anna has 45 stickers at home. Her mom gives her 12 more. She gives 10 stickers for her book at school. How many stickers does Anna have now?

A baker bakes 25 chocolate chip cookies, 15 sugar cookies, and 30 oatmeal raisin cookies. How many cookies does the baker have now?

James has 28 toy cars, 13 toy motorcycles, and 18 toy trucks. How many toy vehicles does James have?

David has 10 comic books and his friend gives him 30 more comic books. How many comic books does David have now?

Sophie has 19 bracelets and buys 18 more. She makes 15 more bracelets. How many bracelets does Sophie have now?

Lucas has 13 action figures and gets 6 more as a gift. Then he buys 22 more. How many action figures does Lucas have now?

Subtraction Mental Math – Counting Back

1. Circle the higher number on the hundreds chart/number line.
2. Count back by the other number and write down the answer



Part 1

Use the charts to answer the questions

1) $13 - 5 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

2) $18 - 6 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

3) $15 - 3 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

4) $14 - 4 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

5) $13 - 6 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

6) $12 - 5 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

7) $18 - 8 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

8) $17 - 7 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

9) $19 - 4 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

10) $19 - 9 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

11) $15 - 6 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

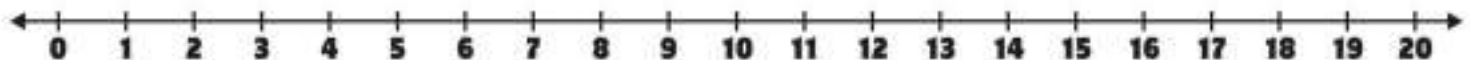
12) $17 - 8 =$ _____

HUNDREDS chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

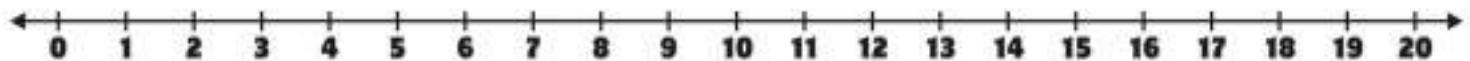
Part 2

Use the number lines to find the answers

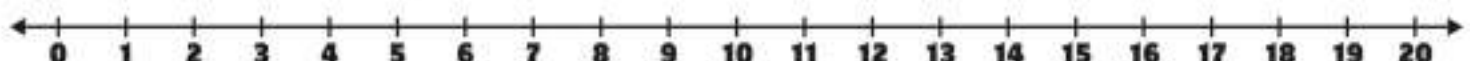
1) $13 - 9 =$ _____



2) $16 - 4 =$ _____



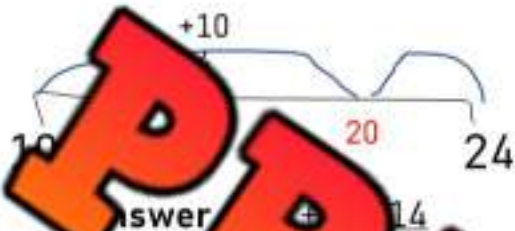
3) $15 - 9 =$ _____



Subtraction Mental Math – Counting Up

1. Start with the smaller number
2. Count up from the smaller number to the bigger number to find the difference
3. The difference is the answer

$24 - 10$



$27 - 15$

$33 -$

$38 - 26$

$49 - 31$

$56 -$

$68 - 55$

$87 - 73$

Math Facts – Subtract b 0 and 1**Questions** Solve as many problems as you can before the time runs out!
36

$$\begin{array}{r} 6 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ -1 \\ \hline \end{array}$$

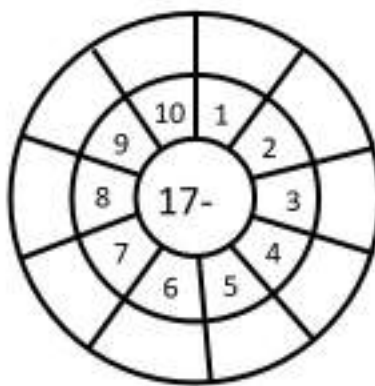
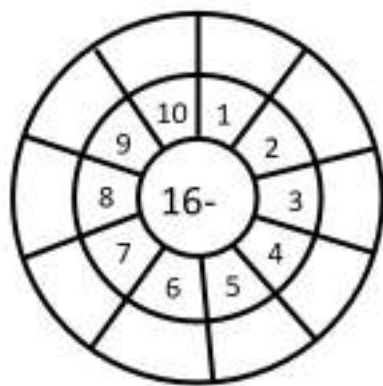
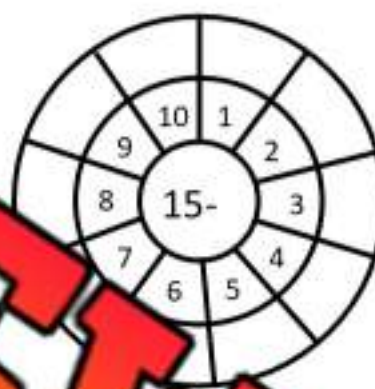
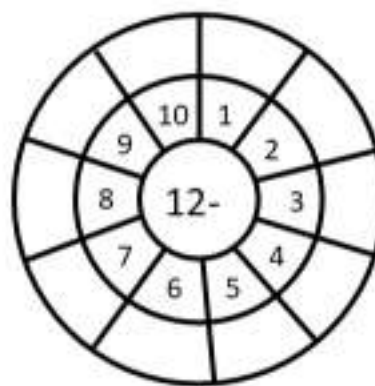
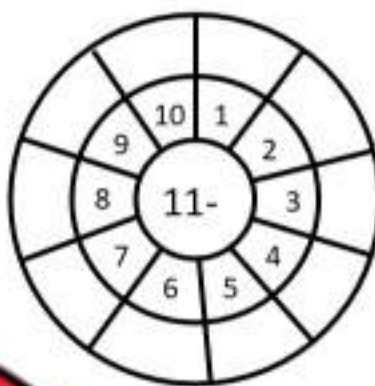
$$\begin{array}{r} 1 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ -1 \\ \hline \end{array}$$

Bullseye Subtraction Facts**Questions**

Fill in the outer layer of the bullseye



Subtracting Multiples of 10**Part 1**

Answer the questions below

1) 70 - 20 =

2) 50 - 30 =

3) 80 - 40 =

4) 30 - 10 =

5) 40 - 10 =

6) 90 - 50 =

7) 50 - 40 =

8) 100 - 90 =

9) 60 - 40 =

10) 70 - 20 =

Part 2

Answer the questions below

- 1) Ava has \$80 in her purse. She spent \$50 on a new sweater. How much money does she have left?



- 2) Hayden needed to drive 90 km to get to his friend's house. He has driven 30 km already. How much further does he need to drive?



Subtracting Multiples of 10

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41		43	44	45	46	47	48	49	50
51		53	54	55	56	57	58	59	60
61			64	65	66	67	68	69	70
71	72		74	75	76	77	78	79	80
81	82		84	85	86	87	88	89	90
91	92				96	97	98	99	100

Questions

Answer the questions

1) $62 - 20 =$

2) $31 - 10 =$

3) $58 - 40 =$

4) $99 - 10 =$

5) $71 - 50 =$

6) $83 - 10 =$

7) $88 - 30 =$

8) $94 - 40 =$

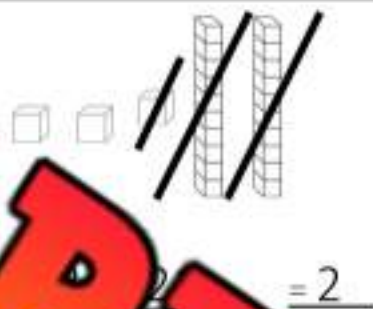
9) $57 - 40 =$

10) $77 - 20 =$

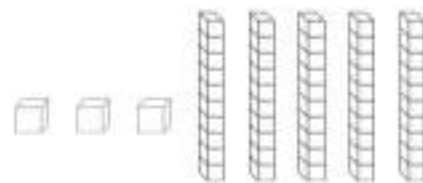
Subtracting Using Base Ten Blocks

Questions

Subtract using the base ten blocks



$$20 - 18 = 2$$



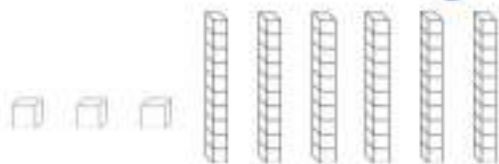
$$53 - 12 = \underline{\quad}$$



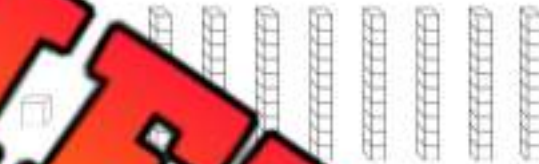
$$35 - 15 = \underline{\quad}$$



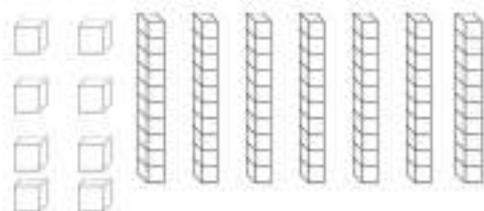
$$46 - 12 = \underline{\quad}$$



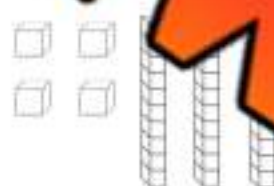
$$63 - 11 = \underline{\quad}$$



$$82 - 2 = \underline{\quad}$$



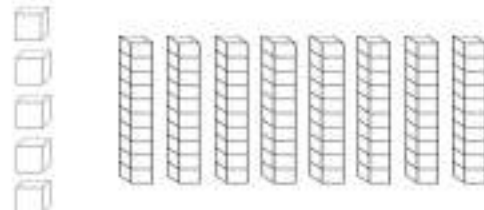
$$78 - 10 = \underline{\quad}$$



$$34 - 20 = \underline{\quad}$$



$$53 - 13 = \underline{\quad}$$



$$85 - 45 = \underline{\quad}$$

PREVIEW

Subtracting - Borrowing**Questions**

Use the standard algorithm to solve the subtraction problems below

	Tens	Ones
1)		
		4
-	3	7
<hr/>		

	Tens	Ones
2)		
	7	7
-	6	8
<hr/>		

	Tens	Ones
3)		
	8	5
-	4	8
<hr/>		

	Tens	Ones
4)		
	9	5
-	4	6
<hr/>		

	Tens	Ones
5)		0
	6	2
-	2	4
<hr/>		

	Tens	Ones
6)		
	8	1
-	3	4
<hr/>		

	Tens	Ones
7)		
	3	6
-	1	8
<hr/>		

	Tens	Ones
8)		
	7	4
-	5	5
<hr/>		

	Tens	Ones
9)		
	5	3
-	2	4
<hr/>		

Matching Game: Inverse Operations Match

Objective

What are we learning about?

To enhance students' understanding of inverse operations by matching addition and subtraction equations. Students will identify and match pairs of equations that demonstrate inverse relationships, fostering critical thinking and problem-solving skills in a collaborative group setting.

Materials: _____ will need for the activity.

- Pre-prepared _____ pre-cut _____ cards.
- Small bags or envelopes to hold the _____ sets for each group



Instructions

How you will complete the activity

1. Before the class, the teacher will cut out the pre-prepared matching game cards, ensuring there are 10 subtraction equations and their corresponding 10 inverse addition equations.
2. Divide the students into small groups and give each group a bag or envelope containing a set of the matching cards.
3. In their groups, students will spread out the cards face down on their table.
4. Each person takes a turn to try to match two cards.
5. If they find a correct match, they keep the cards out and continue with their next turn. If the cards don't match, they turn them back over in the same place, and the next player takes a turn.
6. The activity continues until all pairs are correctly matched within each group.

Cards

Matching Game Cards

$$8 - 3 = 5$$

$$5 + 3 = 8$$

PREVIEW

$$5 + 4 = 9$$

$$7 - 2 = 5$$

$$5 + 2 = 7$$

$$12 - 6 = 6$$

$$6 + 6 = 12$$

$$14 - 7 = 7$$

$$7 + 7 = 14$$

Cards

Matching Game Cards

$$45 - 30 = 15$$

$$15 + 30 = 45$$

$$50 - 25 = 25$$

$$25 + 25 = 50$$

$$55 - 30 = 25$$

$$25 + 30 = 55$$

$$60 - 35 = 25$$

$$25 + 35 = 60$$

$$65 - 40 = 25$$

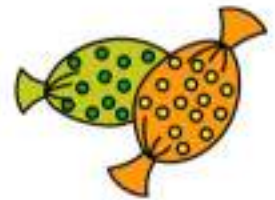
$$25 + 40 = 65$$

PREVIEW

Subtraction Word Problem (Less than 50)**Questions**

Answer the word problems below. Try drawing pictures to help you solve

- 1) Markus got 38 candies when he went Trick-or-Treating for Halloween. He gave his younger brother 12 candies. How many does he have left?



- 2) Eric has saved \$40 in a bank. He spent \$18 on a new t-shirt. How much money does he have left?



- 3) The grade 2 class is running a bake sale. They have 50 baked goods to sell. They end up selling 42 baked goods. How many do they have left?



Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

a) Solve the subtraction problems below

1)	$\begin{array}{r} 74 \\ - 58 \\ \hline \end{array}$	2)	$\begin{array}{r} 62 \\ - 31 \\ \hline \end{array}$
----	---	----	---

b) Michael has 77 toy cars. He gave 36 toy cars to his brother. How many toy cars does he have left?

Name: _____

a) Solve the subtraction problems below

1)	$\begin{array}{r} 74 \\ - 58 \\ \hline \end{array}$	2)	$\begin{array}{r} 62 \\ - 31 \\ \hline \end{array}$
----	---	----	---

b) Michael has 77 toy cars. He gave 36 toy cars to his brother. How many toy cars does he have left?

Name: _____

a) Solve the subtraction problems below

1)	$\begin{array}{r} 74 \\ - 58 \\ \hline \end{array}$	2)	$\begin{array}{r} 62 \\ - 31 \\ \hline \end{array}$
----	---	----	---

b) Michael has 77 toy cars. He gave 36 toy cars to his brother. How many toy cars does he have left?

Name: _____

a) Solve the subtraction problems below

1)	$\begin{array}{r} 74 \\ - 58 \\ \hline \end{array}$	2)	$\begin{array}{r} 62 \\ - 31 \\ \hline \end{array}$
----	---	----	---

b) Michael has 77 toy cars. He gave 36 toy cars to his brother. How many toy cars does he have left?

Adding and Subtracting Numbers To 20**Questions**

Addition and subtraction questions



1) $5 + 2 - 2 =$

2) $12 - 3 =$

3) $6 + 5 =$

4) $12 + 6 - 4 =$

5) $15 - 5 + 6 =$

6) $14 - 3 + 2 =$

7) $14 + 1 - 2 =$

8) $15 + 3 - 5 =$

9) $11 - 7 + 6 =$

10) $10 + 8 - 6 =$

11) $7 - 5 + 10 =$

12) $15 - 8 + 5 =$

13) $11 + 6 - 8 =$

14) $13 + 5 - 9 =$

15) $2 - 1 + 4 =$

16) $1 + 6 =$

17) $1 + 8 - 5 =$

18) $8 + 9 - 6 =$

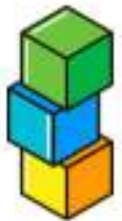
19) $16 - 9 + 6 =$

20) $3 + 8 - 4 =$

PREVIEW

Adding and Subtracting – Word Problems (To 20)**Questions**Solve the following questions. Tip: draw pictures to help!

1) Anna has 9 blocks and then grabs 6 more. She gives 4 blocks to her friend. How many blocks does she have now?



2) Stephanie has \$10 and her mother gives her \$5 more. She spends \$8 on chocolate bars. How much money does she have now?



3) Ryerson bakes 8 cookies in his first batch and 9 cookies in his second batch. He eats 4 cookies. How many cookies does he have left?



4) Derek collects 12 rocks the first day and 6 rocks the second day. He throws 9 of the rocks back outside. How many rocks did he keep?



Subtracting Measurements

Questions

Follow the instructions below, measuring things in your life

1) Measure your shoe length. Compare it with the shoe length of a classmate. How much bigger or smaller is your shoe?



2) Measure the height of your bottle and the height of a friend's bottle. How much taller or shorter is your bottle?



3) Measure the height of two writing utensils. How much taller is one than the other?



4) Measure the width of your classroom door. Then measure the width of your desk. Will your desk fit through the door? How much wider is the door?



Task Cards: Addition and Subtraction

Objective

What are we learning about?

To help students understand and practice addition and subtraction of numbers up to 100. Students will engage in activities that demonstrate these concepts concretely, pictorially, and symbolically.

Materials

What you will need for the activity.

- 24 task cards
- Separate sheets of paper for answers
- Pencils



Instructions

How to complete the activity

1. Cut out the 24 task cards.
2. Distribute a set of all 24 task cards to each pair of students. Ensure each pair has their cards shuffled to start.
3. Provide each pair with a recording sheet. The recording sheet should have numbers 1 to 24 where students can write their answers.
4. Explain to students that they will work with their partner to solve each task card. They can discuss and agree on answers before writing them down.
5. Allow the pairs to begin working through the task cards. They can solve them in any order they prefer.
6. If using a timer, set it for 30 minutes to encourage focus and manage classroom time effectively.
7. Once the time is up or all pairs have completed their task cards, review the answers together as a class. Discuss any discrepancies and provide correct solutions.
8. Collect the recording sheets to assess understanding and give individual feedback.

Task Cards

Cut out the task cards below

Task Card 1:

Calculate:
 $5 + 2 - 2 = \underline{\quad}$

Task Card 5:

John had 12 apples, gave 5 to his friend, and then got 3 more. How many apples does John have now?

Calculate: $45 \div 2 = \underline{\quad}$

Task Card 6:

Calculate: $15 - 8 + 5 = \underline{\quad}$

Task Card 3:

Calculate: $35 - 3 + 6 = \underline{\quad}$

Sarah had 20 balloons, gave 7 of them to her friend, and bought 5 more. How many balloons does she have now?

Task Card 4:

Tom had 15 balloons, 3 of them popped, and he bought 4 more. How many balloons does he have now?

Task Card 8:

Calculate: $59 - 9 = \underline{\quad}$

Task Cards

Cut out the task cards below

Task Card 17:

Calculate: $13 + 5 - 9 = \underline{\quad}$

Task Card 21:

Calculate: $80 - 30 = \underline{\quad}$

Task Card 18:

There were 30 students in the gym. 5 students went home early. 4 new students joined. How many students are there now?

Task Card 22:

Calculate: $25 - 5 + 6 = \underline{\quad}$

Task Card 19:

Calculate: $23 + 8 = \underline{\quad}$

Lisa baked 40 cupcakes for a party, 10 were eaten. She then baked 15 more. How many cupcakes are there now?

Task Card 20:

Calculate: $90 - 10 = \underline{\quad}$

Task Card 24:

Calculate: $50 - 20 = \underline{\quad}$

Name: _____

176

Task Cards: Addition and Subtraction

Answers

Record your answers below

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

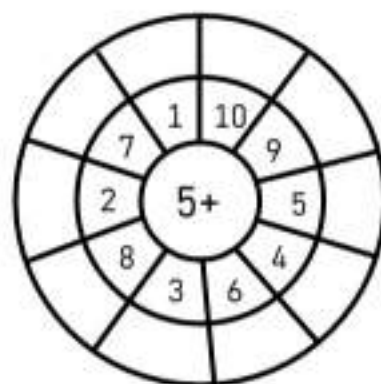
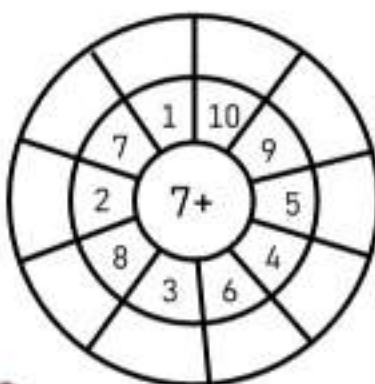
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

PREVIEW

Operations Quiz

Part 1

Fill in the outer layer of the bullseye



Part 2

Use the standard algorithm to solve the subtraction problems

	Tens	Ones
	7	7
-	2	4
<hr/>		

	Tens	Ones
	8	5
-	4	4
<hr/>		

	Tens	Ones
	3	4
-	1	8
<hr/>		

	Tens	Ones
	8	7
-	4	8
<hr/>		

Part 3 Use the standard algorithm to solve the addition problems below

	Tens	Ones
	4	4
+	4	3
<hr/>		

	Tens	Ones
	5	8
+	3	0
<hr/>		

	Tens	Ones
	6	7
+	2	6
<hr/>		

	Tens	Ones
	5	7
+	1	5
<hr/>		

Part 4 Solve the word problems

1) Henry has \$74. He spends \$20 on a new baseball glove. How much money does he have left?



2) Steve collected 67 shells at the beach yesterday and 21 shells today. How many total shells does he have now?



3) Sam buys 50 candies on Monday and 37 candies on Tuesday. He gives 31 candies to his friends to share. How many candies does he have left?





Grade 2 Patterns and Relationships



	Curriculum Expectations	Pages
P2.1	Demonstrate understanding of repeating patterns (three to five elements) by: <ul style="list-style-type: none"> • describing • representing patterns in alternate modes • extending • comparing • creating patterns using manipulatives, pictures 	5 - 46
P2.2	<ul style="list-style-type: none"> • creating patterns using manipulatives, pictures, sounds, and actions (numbers to 100). 	
P2.3	Demonstrate understanding of equality and inequality concretely and pictorially (0 to 100) by: <ul style="list-style-type: none"> • relating equality and inequality to balance • comparing sets • recording equalities with an equal sign • recording inequalities with a not equal sign • solving problems involving equality and inequality. 	98 - 142
TQ	Tests and Quizzes	96 - 97, 143 - 144



Preview of 100 pages from
 this product that contains
 275 pages total.

Non-Repeating Patterns

A **repeating pattern** has the same elements that repeat over and over. A **non-repeating pattern** has similar elements, but the elements could get bigger or smaller. We could also add or remove elements or change the colour of them.

In a repeating pattern, we can find a pattern core. In a non-repeating pattern, there is no core.

Example

Repeating Pattern	1, 2, 3, 1, 2, 3	
Non-Repeating Pattern	1, 2, 3, 4, 5, 6, 7	

Questions

Is the pattern a repeating or non-repeating pattern?

1)	10, 20, 30, 40, 50, 60	Repeating	Non-Repeating
2)	100, 50, 50, 100, 50, 50, 100, 50, 50	Repeating	Non-Repeating
3)		Repeating	Non-Repeating
4)		Repeating	Non-Repeating
5)		Repeating	Non-Repeating
6)		Repeating	Non-Repeating

Draw

Draw your own repeating and non-repeating patterns

Repeating	
Non-Repeating	

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Is the pattern a repeating or non-repeating pattern?

- 1) 8, 8, 8, 8, 8, 8
Repeating Non-repeating
- 2) 5, 10, 15, 20, 25, 30, 35
Repeating Non-repeating
- 3) ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀.
Repeating Non-repeating
- 4) 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗.
Repeating Non-repeating

Name: _____

Is the pattern a repeating or non-repeating pattern?

- 1) 8, 8, 8, 8, 8, 8
Repeating Non-repeating
- 2) 5, 10, 15, 20, 25, 30, 35
Repeating Non-repeating
- 3) ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀.
Repeating Non-repeating
- 4) 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗.
Repeating Non-repeating

Name: _____

Is the pattern a repeating or non-repeating pattern?

- 1) 8, 8, 8, 8, 8, 8
Repeating Non-repeating
- 2) 5, 10, 15, 20, 25, 30, 35
Repeating Non-repeating
- 3) ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀.
Repeating Non-repeating
- 4) 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗.
Repeating Non-repeating

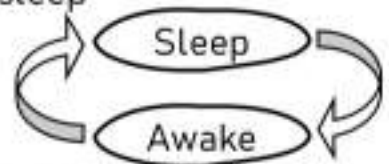
Name: _____

Is the pattern a repeating or non-repeating pattern?

- 1) 8, 8, 8, 8, 8, 8
Repeating Non-repeating
- 2) 5, 10, 15, 20, 25, 30, 35
Repeating Non-repeating
- 3) ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀. ⚽. 🏀.
Repeating Non-repeating
- 4) 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗. 🚗.
Repeating Non-repeating

What is a Cycle?

A cycle is when events happen over and over. For example, we all have a sleep and awake cycle. The two events repeat over and over. We sleep and then we wake up and then we sleep again and then we wake up. This is a cycle. Cycles are repeating patterns.



Night and day are two more events that happen over and over. It is daytime and then nighttime, and then daytime again. This is a cycle. The sleep and repeating pattern has repeated for a long time!

Cycle

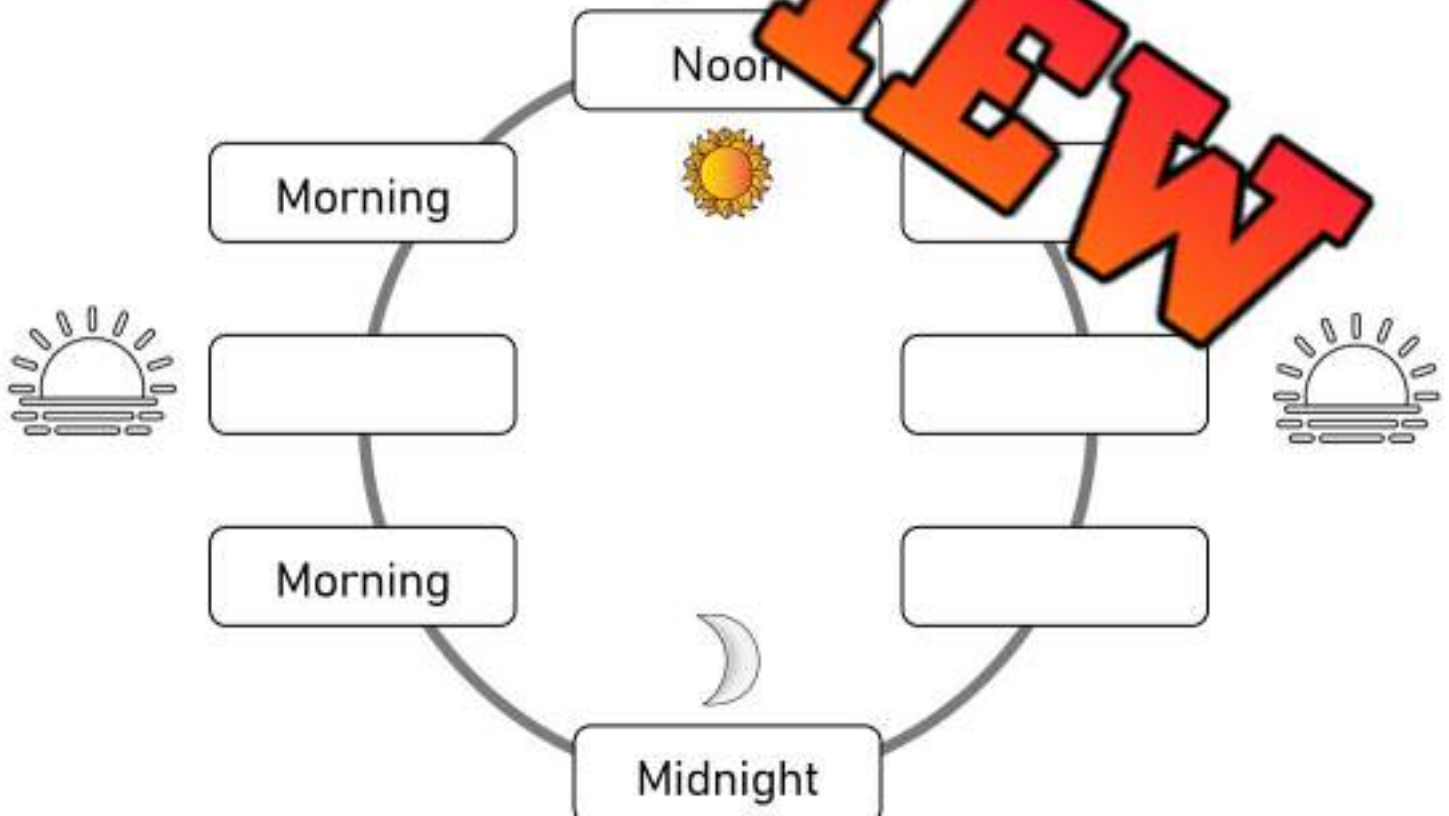
Use the words below to fill in the cycle below

Evening

Sunrise

Noon

Sunset

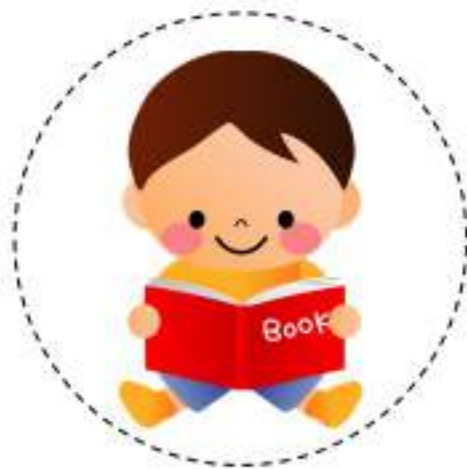
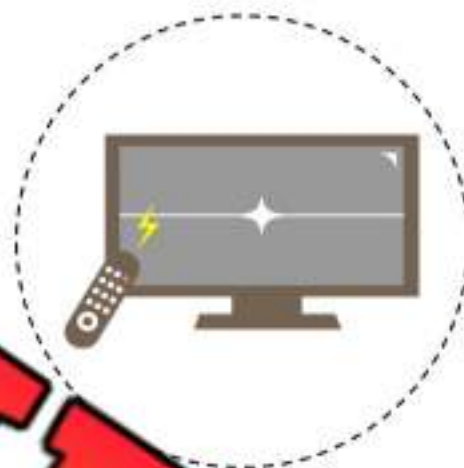


Cam's Cycle

Cam has been doing the same things lately. He feels his life is like a cycle. Here is what he does each day.

- 1) Wake up
- 2) Go to school
- 3) Watch TV
- 4) Practice reading
- 5) Go to sleep

Cycle _____ at the events of Cam's life out below



Name: _____

10

Cam's Cycle

Cycle

Paste Cam's events in the circles below



PREVIEW

Repeating Patterns

Questions

Label the images as A/B patterns and continue the pattern

									
A		B	A	A	A	B	A		
									
									
									
									
									

Activity Title: Sound Clap Patterns

Objective

What are we learning about?

Students will create and recognize patterns using clapping and other sounds. This activity helps students understand and identify patterns through a fun and interactive method.



Materials: What do you need for the activity.

- None

Instructions

How you will complete the activity.

1. Begin by explaining to the students that they will create patterns using clapping and other sounds, like snap or stomp.
2. Demonstrate a simple pattern, such as "clap, clap, snap, clap," and have the students repeat it.
3. Divide the students into small groups and ask each group to come up with their own unique sound pattern.
4. Allow each group to perform their pattern in front of the class.
5. After each performance, ask the rest of the class to identify and extend the pattern. For example, if the pattern is "clap, clap, snap, clap," the next part could be "clap, clap, snap, clap, clap, clap, snap, clap."
6. Repeat the process with each group, encouraging creativity and variation in the patterns they create.

Reflection

Answer the questions below.

1) Describe your pattern below.

2) Describe the pattern of another group.

3) Translate the pattern into shapes. For example, if the pattern was clap, clap, snap, clap, clap, then you could do square, square, circle, square, square, circle.

4) Translate the pattern another group made.

PREVIEW

Repeating A/B Patterns

Questions

Label the A/B patterns below and then extend the pattern

A			D	A	A	B	C	D	A

Repeating A/B Patterns

Part 1

Label the A/B/C patterns below and then continue the pattern



Part 2

Create patterns that use the given A/B pattern

1)
A B B A B B A B B

2)
A A B C A A B C A


3)
A B C A A B C A A

Creating Repeating Patterns - Colours

Questions

Colour the shapes below in different colours by creating a pattern

1) 


2) 

3) 

4) 

5) 

6) 

7) 

8) 

Extending Repeating Patterns - Texture

Questions

Extend the pattern by looking for a pattern in the textures

Row 1: A sequence of 8 squares. The first four have different textures: diagonal lines (top-left to bottom-right), horizontal lines, diagonal lines (top-right to bottom-left), and vertical lines. The last four are empty squares.

Row 2: A sequence of 8 circles. The first three have different textures: a grid, a dotted pattern, and a stippled pattern. The last five are empty circles.

Row 3: A sequence of 8 triangles. The first four have different textures: a brick pattern, a dotted pattern, a grid, and a stippled pattern. The last four are empty triangles.

Row 4: A sequence of 8 hearts. The first four have different textures: horizontal lines, a grid, vertical lines, and a stippled pattern. The last four are empty hearts.

Row 5: A sequence of 8 right-angled triangles. The first six have different textures: a grid, diagonal lines, a stippled pattern, vertical lines, horizontal lines, and a grid. The last two are empty triangles.

Row 6: A sequence of 9 parallelograms. The first six have different textures: vertical lines, horizontal lines, diagonal lines (top-left to bottom-right), diagonal lines (top-right to bottom-left), vertical lines, and horizontal lines. The last three are empty parallelograms.

Row 7: A sequence of 9 stars. The first six have different textures: diagonal lines, a stippled pattern, a grid, diagonal lines, a stippled pattern, and a grid. The last three are empty stars.

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Circle the pattern core

- 1) X, Y, Y, Z, X, Y, Y, Z
- 2) 🍉, 🍌, 🍌, 🍌, 🍌, 🍉, 🍌, 🍌, 🍌
- 3) M, N, O, M, N, O
- 4) 1, 2, 3, 3, 1, 2, 3, 3

Name: _____

Circle the pattern core

- 1) X, Y, Y, Z, X, Y, Y, Z
- 2) 🍉, 🍌, 🍌, 🍌, 🍌, 🍉, 🍌, 🍌, 🍌
- 3) M, N, O, M, N, O
- 4) 1, 2, 3, 3, 1, 2, 3, 3

Name: _____

Circle the pattern core

- 1) X, Y, Y, Z, X, Y, Y, Z
- 2) 🍉, 🍌, 🍌, 🍌, 🍌, 🍉, 🍌, 🍌, 🍌
- 3) M, N, O, M, N, O
- 4) 1, 2, 3, 3, 1, 2, 3, 3

Name: _____

Circle the pattern core

- 1) X, Y, Y, Z, X, Y, Y, Z
- 2) 🍉, 🍌, 🍌, 🍌, 🍌, 🍉, 🍌, 🍌, 🍌
- 3) M, N, O, M, N, O
- 4) 1, 2, 3, 3, 1, 2, 3, 3

Extending Repeating Patterns - Letters

Questions

Continue the pattern below by writing more letters

1)	A		B		A		A		B		A		A				
2)					P		R		S				P		R		S
3)	S		N		E					E			S		N		
4)	E			L		P		E						E		L	
5)	Y				B		L		Y		S		B		B		
6)	A			A		C		A		B		A		C			B
7)	P			K				P		E		K		E			E

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Continue the patterns below by writing more letters and numbers

1) _____, N, M, _____, _____

2) 4, 4, _____, 2, 4, _____, _____

3) 8, 8, _____, 7, 8, 8, 6, 7, _____, _____

4) J, K, J, _____, K, J, K, J, _____, _____, _____

Name: _____

Continue the patterns below by writing more letters and numbers

1) M, L, M, N, _____, L, M, N, M, _____, _____

2) 4, 4, _____, 2, 4, 4, 1, 2, 4, _____, _____

3) 8, 8, _____, 7, 8, 8, 6, 7, 8, _____, 6, _____

4) J, K, J, _____, K, J, K, J, _____, _____, _____

Name: _____

Continue the patterns below by writing more letters and numbers

1) M, L, M, N, _____, L, M, N, M, _____, _____

2) 4, 4, _____, 2, 4, 4, 1, 2, 4, _____, _____

3) 8, 8, _____, 7, 8, 8, 6, 7, 8, _____, 6, _____

4) J, K, J, _____, K, J, K, J, _____, _____, _____

Name: _____

Continue the patterns below by writing more letters and numbers

1) M, L, M, N, _____, L, M, N, M, _____, _____

2) 4, 4, _____, 2, 4, 4, 1, 2, 4, _____, _____

3) 8, 8, _____, 7, 8, 8, 6, 7, 8, _____, 6, _____

4) J, K, J, _____, K, J, K, J, _____, _____, _____

Repeating Patterns - Bracelets



Questions

Draw the repeating patterns on the bracelets

1)

2)

3)

4)

5)

6)

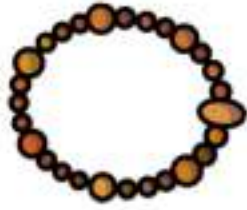
7)

8)

PREVIEW

Name: _____

Repeating Patterns - Bracelets



Draw your own bracelets using repeating

Questions

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

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

PREVIEW

Name: _____

35

Curriculum Connection
P2.1

Repeating Patterns - Necklace

Questions

Draw your own necklace using a repeating pattern



Activity Title: Pattern Palooza Necklace**Objective**

What are we learning about?

To help students understand and create growing patterns by making their own patterned necklaces. This activity will enhance their ability to recognize, predict, and extend patterns, while allowing them to engage in a hands-on craft.

Materials You will need for the activity.

- Coloured beads (in simple patterns)
- String or yarn
- Scissors
- Paper and pencil (for planning the pattern)

**Instructions**

How you will complete the activity

1. Distribute a length of string or yarn to each student, ensuring it is long enough to make a necklace.
2. Provide each student with a variety of coloured beads.
3. Instruct students to sketch out a pattern on paper before starting their necklace. Encourage them to think of patterns that grow, such as adding one more bead of the same colour before switching to a new colour, or creating a sequence that grows in number and then repeats.
4. Once they have planned their pattern, students should start threading the beads onto the string according to their design.
5. When they have finished adding beads, help them tie off the necklace securely.
6. Have each student present their necklace and explain the pattern they chose.

Name: _____

38

Curriculum Connection
P2.1

Planning

Sketch your necklace below

PREVIEW

Extending Repeating Patterns – Word Problems**Questions**

Answer the question below

1)

A traffic light follows a sequence of colours: red, green, yellow, red, green, yellow, ...

Based on the repeating pattern, what will be the colour of a traffic light on the 12th change?



2)

A teacher uses a variety of teaching tools for her class: flashcards, video, question cards, and a quiz, ...

Identify the repeating pattern and determine which teaching aid will be used on the 15th day.



3)

A gardener plants flowers in a row, following a specific pattern: roses, tulips, lilies, sunflowers, roses, tulips, lilies, sunflowers, ...

According to the repeating pattern, what type of flower will be planted in the 28th position?



Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

In a toy factory, cars are painted in a sequence of colours: red, red, blue, green, yellow, red, red, blue, green, yellow. According to the repeating pattern, which colour will be used for the 20th car?

Answer: _____

Name: _____

In a toy factory, cars are painted in a sequence of colours: red, red, blue, green, yellow, red, red, blue, green, yellow. According to the repeating pattern, which colour will be used for the 20th car?

Answer: _____

Name: _____

In a toy factory, cars are painted in a sequence of colours: red, red, blue, green, yellow, red, red, blue, green, yellow. According to the repeating pattern, which colour will be used for the 20th car?

Answer: _____

Name: _____

In a toy factory, cars are painted in a sequence of colours: red, red, blue, green, yellow, red, red, blue, green, yellow. According to the repeating pattern, which colour will be used for the 20th car?

Answer: _____

Translating Patterns – AB Patterns

Translating Patterns

The pattern red, blue, red, blue can be translated to clap, stomp, clap stomp. These are both A/B patterns.



Questions

Translate the first pattern into a new pattern using different colours

1)	B	A	B	A	B	
Translated						
2)	A	A	B	B	B	
Translated						
3)	A	B	C	C	C	
Translated						
4)	A	A	B	A	A	B
Translated						
5)	A	B	A	A	B	A
Translated						

Translating Patterns – AB Patterns

Questions

Draw your own A/B patterns using shapes, numbers, or letters

1)	A	B	A	B	A	B
Translated						

	A	B	A	A	B
Translated					

3)	A		A	B	C
Translated					

4)	A	B	B		B
Translated					

5)	A	B	A	B	A	B
Translated						

6)	A	B	A	A	B	A
Translated						

Translating Patterns – AB Patterns

Questions

Translate the first pattern into a new pattern using different colours









1)	2	5	2	5	2	5
Translated						

	T	G	T	T	G	
Translated						

3)	3		3	5	5	
Translated						






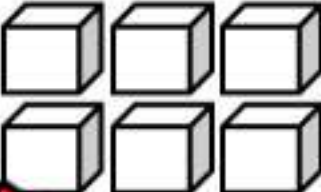


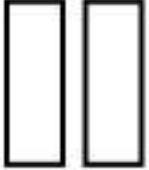


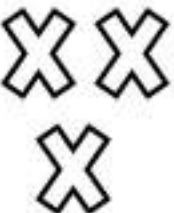

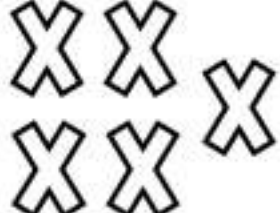



4)	F	B	B		B	
Translated						

5)	7	8	7	7	8	7
Translated						

6)	B	B	L	L	B	B	L	L
Translated								

Increasing Patterns - Shapes**Questions**

Draw the shapes in the last column

1)				
2)				
3)				
4)				
5)				
6)				

Increasing Patterns - Shapes

Questions

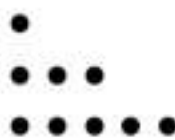
Draw the next line of the increasing pattern

1) Draw the next line in the pattern.



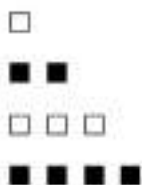
Answer

2) Draw the next line in the pattern.



Answer

3) Draw the next line in the pattern.



4) Draw the next line in the pattern.

Answer

5) Draw the next line in the pattern.

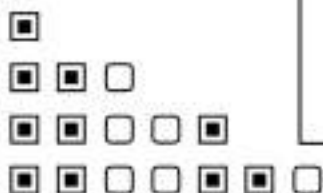


Answer

6) Draw the next line in the pattern.

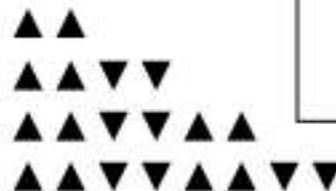


7) Draw the next line in the pattern.



Answer

8) Draw the next line in the pattern.



Answer

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Draw the next 2 lines in the pattern.



Name: _____

Draw the next 2 lines in the pattern.



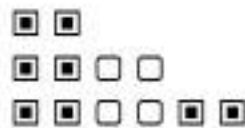
Name: _____

Draw the next 2 lines in the pattern.



Name: _____

Draw the next 2 lines in the pattern.



PREVIEW

Increasing Patterns - Shapes

Directions

Shade in the blocks that were added to the pattern



1) Figure 1

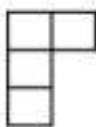


Figure 2

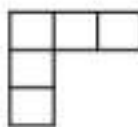


Figure 3

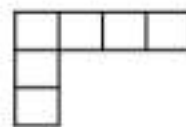


Figure 4



2) Figure 1

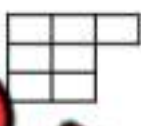


Figure 2

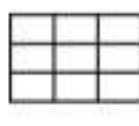


Figure 3

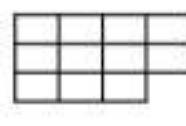
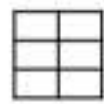


Figure 4



3) Figure 1



Figure 2

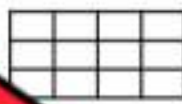


Figure 3

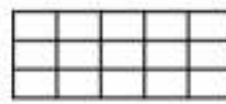


Figure 4



4) Figure 1



Figure 2



Figure 3

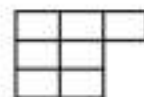


Figure 4



5) Figure 1



Figure 2

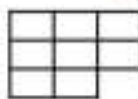


Figure 3



Figure 4



6) Figure 1



Figure 2

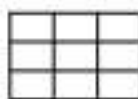


Figure 3

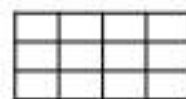


Figure 4



7) Figure 1



Figure 2

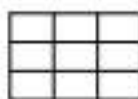


Figure 3

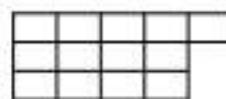

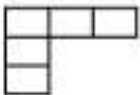
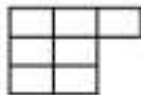


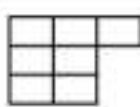

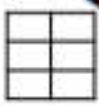


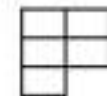
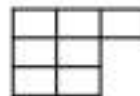

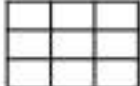
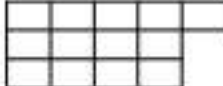


Figure 4

Increasing Patterns - Shapes**Directions**

Write how many blocks are below. Then continue the pattern

1)				
2)				
3)				
4)				
5)				

Growing Patterns Found in Real Life

Directions

Describe how the pattern is growing. Is there an increase in the number of elements or the size of the elements from one term to the next?

Visual

1) Are the number of elements growing in size?



2) Are the elements increasing in number?

Visual

1) Are the number of elements growing in size?



2) Are the elements increasing in number?

Visual

1) Are the number of elements growing in size?

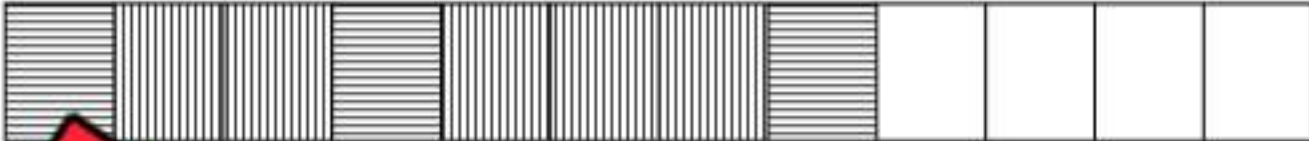


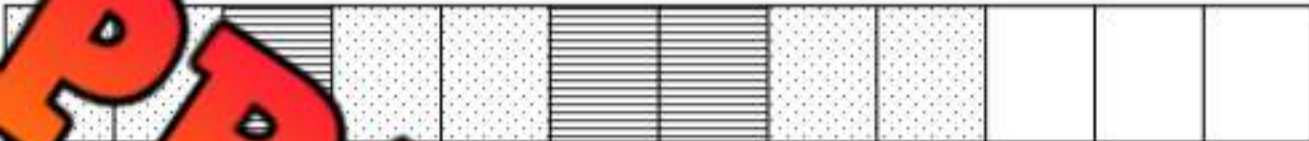
2) Are the elements increasing in number?

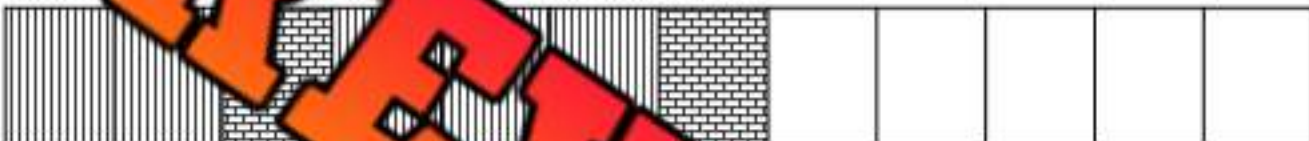
Increasing Patterns - Beading


Questions


Draw the remaining patterns on the bracelets


1) 

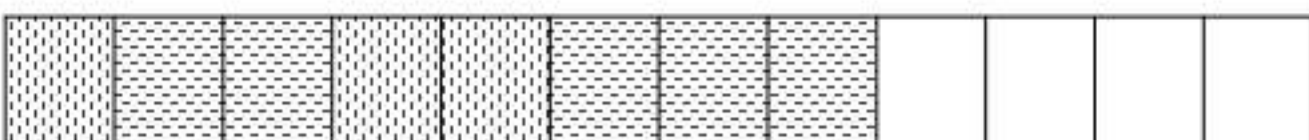
2) 


3) 

4) 

5) 

6) 

7) 

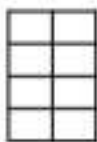
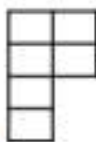
8) 

PREVIEW

Representing Picture Sequence With Numbers

Questions

Write the numerical sequence that represents the picture sequence



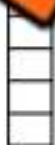
1)

Figure 3

Figure 4

Numerical
Sequence

____ / ____ / ____ / ____



2)

Figure 1

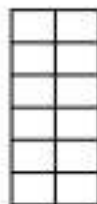
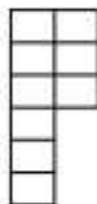
Figure 2

Figure 3

Figure 4

Numerical
Sequence

____ / ____ / ____ / ____



3)

Figure 1

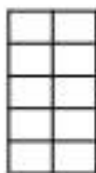
Figure 2

Figure 3

Figure 4

Numerical
Sequence

____ / ____ / ____ / ____



4)

Figure 1

Figure 2

Figure 3

Figure 4

Activity Title: Pattern Pass Along**Objective**

What are we learning about?

To engage students in understanding and creating growing patterns using blocks, enhancing their pattern recognition skills and encouraging cooperative learning. Students will start a pattern and then adapt and extend patterns started by their peers.

Materials What will need for the activity.

- A variety of colours stacking cubes
- Timers or stopwatches
- Paper and pen for each student to record their original pattern observations

**Instructions**

How you will complete the activity

1. Each student receives an equal number of blocks in every colour.
2. Allow three minutes for every student to start their own growing pattern on their desk or designated workspace.
3. After three minutes, instruct every student to move to the desk on their right.
4. Give students two minutes to analyze the pattern in front of them and then add on to it, continuing the growing sequence. They should only add 1 more figure.
5. Repeat step 4 until each student has returned to their original starting position or until students begin running out of blocks.
6. Once back at their starting position, each student should observe how their initial pattern has evolved.
7. Have students write down any changes they notice and what additions were made by others. Does the pattern still work?

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

a) Draw the next figure.

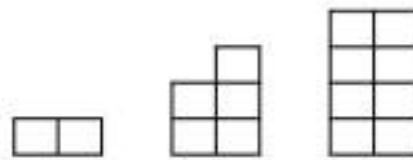


b) Write the numerical sequence that represents the picture sequence.

_____, _____, _____

Name: _____

a) Draw the next figure.

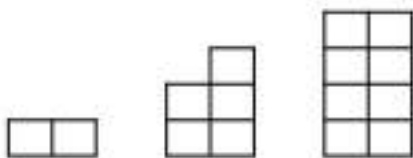


b) Write the numerical sequence that represents the picture sequence.

_____, _____, _____

Name: _____

a) Draw the next figure.

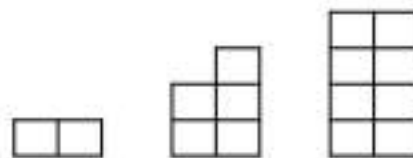


b) Write the numerical sequence that represents the picture sequence.

_____, _____, _____

Name: _____

a) Draw the next figure.



b) Write the numerical sequence that represents the picture sequence.

_____, _____, _____

Hundreds Chart Patterns

Questions

Fill in the missing numbers

1	2	3		5	6	7	8		10	
11			14	15	16		18	19	20	
21			24		26	27	28		30	
31			34	35	36		38	39	40	
	42	43				47	48		50	
51	52	53			56			59	60	
61		63	64	65				69		
71	72		74	75	76	77			80	
	82	83	84			86	87	88		
91	92		94	95	96			98	99	100

Directions

Follow the instructions below

1) Colour the odd numbers



2) Colour the even numbers



Hundreds Chart Patterns

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Directions

Follow the instructions below

A number pattern needs to have a rule that the pattern follows. Colour the numbers in the hundreds chart that show the pattern rule

Rule: start at 5, add 5 each time

Hundreds Chart Patterns

Directions

Follow the instructions below

Colour the pattern rule: start at 3, add 3 each time

1	2	3	4	5	6	7	8	9	10
11		13	14	15	16	17	18	19	20
21			24	25	26	27	28	29	30
31				34	35	36	37	38	39
41	42	43	44	45	46	47	48	49	50
51	52				56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73				77	78	79	80
81	82	83	84		86		88	89	90
91	92	93	94	95	96	97	98	99	100

Colour the pattern rule: start at 1, add 1 each time

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Name: _____

Number Patterns 1 - 20

Questions

Fill in the blanks below

1. 

2. 

3. 

4. 

5. 

PREVIEW

Number Patterns – 2s, 5s, 10s**Questions**

Fill in the blanks below

1.



2

4

6

8

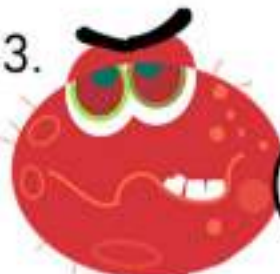
2.



1

20

3.



10

20

30

40

4.



15

20

25

30

5.



20

22


24

26

PREVIEW


Number Patterns – 2s, 5s, 10s**Questions**


Fill in the blanks below

1.  4 8 12 16

2.  15 25 30

3.  0 10 60

4.  25 35 45 55

5.  30 32 38 42

Number Patterns – 5s**Questions**

Fill in the blanks below

1.



2.



3.



4.



5.



Increasing Patterns - Rules

Questions

Colour the numbers that follow the pattern on the hundreds chart

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

1) Start at 1, add 1 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

2) Start at 5, add 2 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

3) Start at 1, add 2 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

4) Start at 5, add 5 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

5) Start at 3, add 3 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

6) Start at 1, add 3 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

7) Start at 4, add 2 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

8) Start at 2, add 4 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

9) Start at 3, add 5 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

10) Start at 5, add 3 each time

Increasing Patterns - Rules

Questions

Colour the numbers that follow the pattern on the hundreds chart

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1) Start at 5, add 5 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

3) Start at 3, add 3 each time

Hundreds chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

2) Start at 1, add 2 each time

Hundreds chart

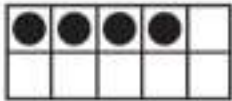
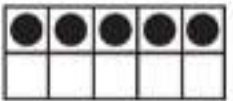
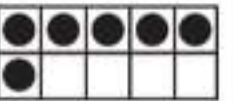
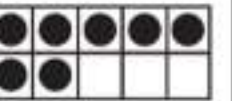
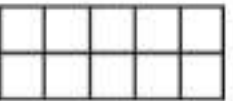
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100


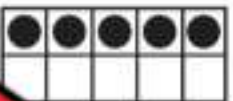
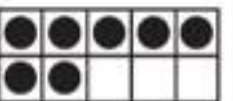
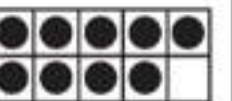
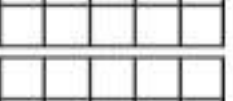
4) Start at 10, add 10 each time




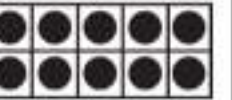
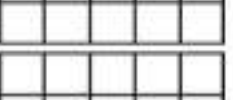
Increasing Patterns - Rules

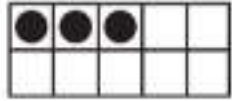
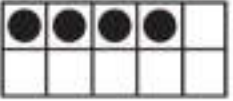


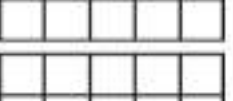
Questions

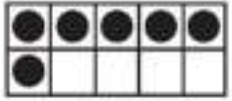

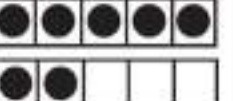


Figure out the pattern and draw the dots on the last 10 frame(s)

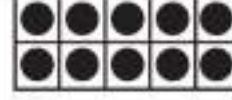


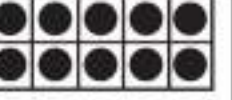
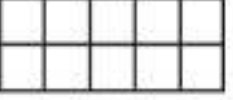
1)     

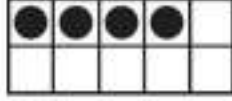
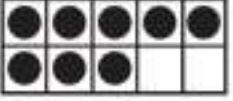
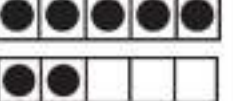

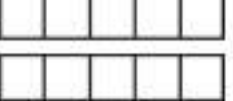
2)     

3)     

4)     

5)     

6)     

7)     

Increasing Patterns - Rules**Questions**

Fill in the blanks by figuring out the pattern rules

2, 4, 6, 8, 10, 12, 14, 16

Start at _____, then add _____ each time

5, 20, 25, 30, 35, 40

Start at _____, then add _____ each time

10, 20, 30, 40, 50, 60, 70

Start at _____, then add _____ each time

5, 8, 11, 14, 17, 20, 23, 26

Start at _____, then add _____ each time

12, 22, 32, 42, 52, 62, 72

Start at _____, then add _____ each time

4, 8, 12, 16, 20, 24, 28, 32

Start at _____, then add _____ each time

Creating Rules

**Questions**

Write your own patterns using the pattern rule

1) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 2, add 2 each time

2) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at _____, add 10 each time

3) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 5, add _____ each time

4) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 3, add 3 each time

5) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 4, add 4 each time

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Write your own patterns using the pattern rule

1) _____

Pattern Rule: Start at 8, add 3 each time.

2) _____

Pattern Rule: Start at 0, add 5 each time.

3) _____

Pattern Rule: Start at 6, add 2 each time.

Name: _____

Write your own patterns using the pattern rule

1) _____

Pattern Rule: Start at 8, add 3 each time.

2) _____

Pattern Rule: Start at 0, add 5 each time.

3) _____

Pattern Rule: Start at 6, add 2 each time.

Name: _____

Write your own patterns using the pattern rule

1) _____

Pattern Rule: Start at 8, add 3 each time.

2) _____

Pattern Rule: Start at 0, add 5 each time.

3) _____

Pattern Rule: Start at 6, add 2 each time.

Name: _____

Write your own patterns using the pattern rule

1) _____

Pattern Rule: Start at 8, add 3 each time.

2) _____

Pattern Rule: Start at 0, add 5 each time.

3) _____

Pattern Rule: Start at 6, add 2 each time.

The Egg Challenge

Challenge

Answer the word problem below

If a hen laid 1 egg on Monday, 2 eggs on Tuesday, 3 eggs on Wednesday and the pattern continued, how many eggs would it lay on the Sunday?

PREVIEW



How many days would the hen need to lay 55



Patterning – Word Problems

Questions

Answer the questions below

1) Jill's pool uses 2 chlorine pucks in May, 5 pucks in June, and 8 pucks in July. If the pattern continued, how many pucks would Jill use in August and November?



August: _____

November: _____

2) Henry's pizza store sells the same number of pizzas each week. He sells 3 pizzas on Monday, 6 pizzas on Tuesday, 9 pizzas on Wednesday, and 12 pizzas on Thursday. If the pattern continues, how many pizzas will he sell on Friday?



Bonus: How many pizzas will he sell for the week?

3) Sam makes 6 dollars on Monday, 10 dollars on Tuesday, 14 dollars on Wednesday, and 18 dollars on Thursday. How much money did he make on Saturday?



Patterning Word Problems - Halloween

Questions

Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

Bill is trick-or-treating for Halloween. He leaves his house with 5 candies to share. He gets 2 candies for each house he visits. He visits 10 houses.

a) Draw the problem below.



b) How many total candies does he get?



Patterning Word Problems – Growing Hair

Questions

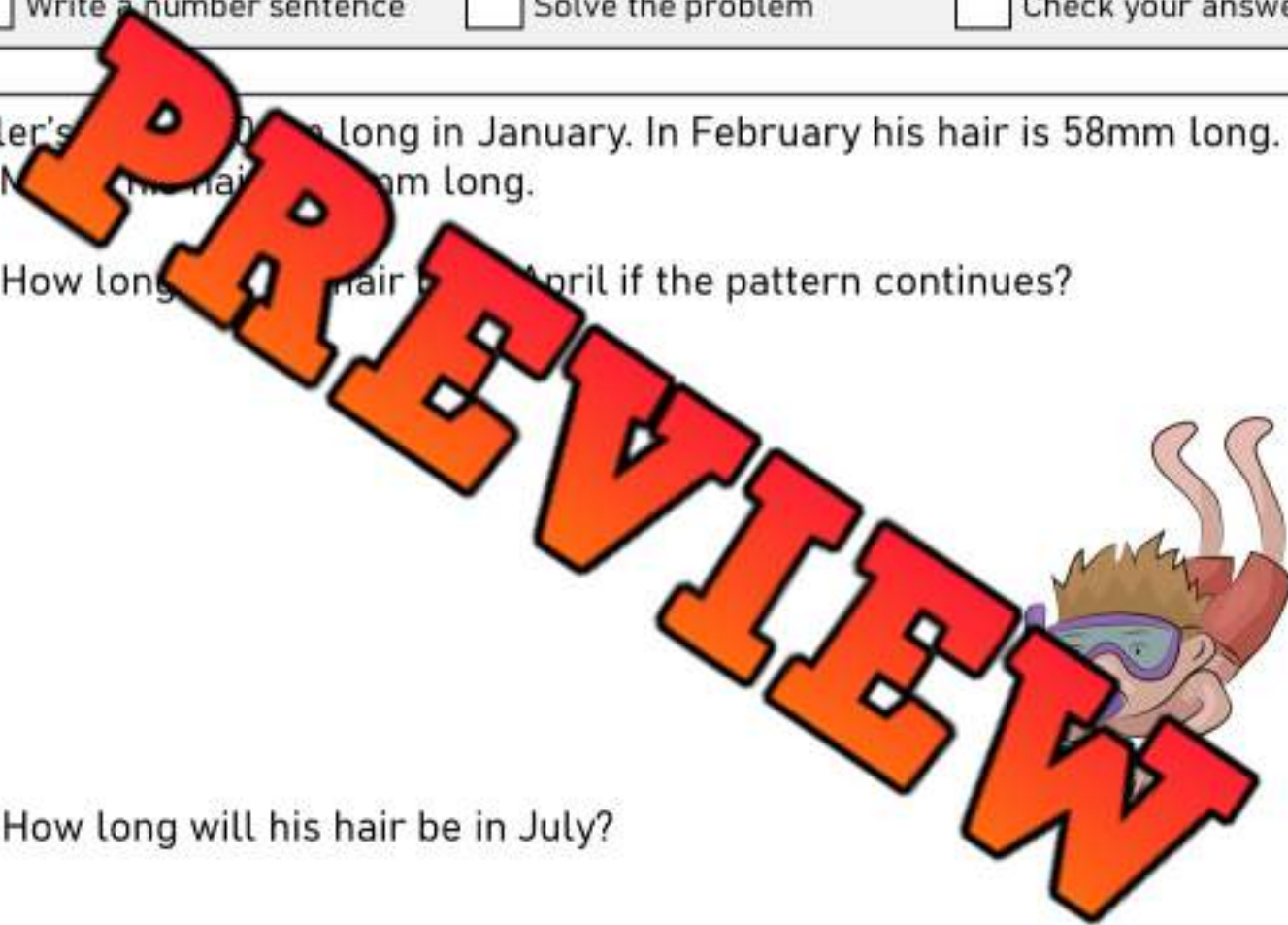
Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

Tyler's hair is 10mm long in January. In February his hair is 58mm long.
In March his hair is 106mm long.

a) How long will his hair be in April if the pattern continues?

b) How long will his hair be in July?



Patterning Word Problems - Snowfall

Questions

Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

The snow is falling outside Rayna's house. She records the height of the snow each hour. After the 1st hour, it is 20cm. After the 2nd hour it is 28cm. After the 3rd hour it is 32cm.

- a) What will the height of the snow be after the 4th hour?



- b) What will the height of the snow be after the 7th hour?

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Sarah is building a tower with blocks. She starts with 3 blocks in the first level. Each next level, she adds 3 more blocks than the previous level. How many blocks are in the fourth level?

Name: _____

Sarah is building a tower with blocks. She starts with 3 blocks in the first level. Each next level, she adds 3 more blocks than the previous level. How many blocks are in the fourth level?

Name: _____

Sarah is building a tower with blocks. She starts with 3 blocks in the first level. Each next level, she adds 3 more blocks than the previous level. How many blocks are in the fourth level?

Name: _____

Sarah is building a tower with blocks. She starts with 3 blocks in the first level. Each next level, she adds 3 more blocks than the previous level. How many blocks are in the fourth level?

Activity Title: Pattern Treasure Hunt

Objective

What are we learning about?

To reinforce students' understanding of growing addition and shrinking subtraction patterns through a dynamic and engaging treasure hunt game. This activity aims to improve problem-solving speed and accuracy while promoting teamwork and active learning.

Materials

What you will need for the activity.

- Stopwatch or timer (or use a smartphone)
- Index cards
- Markers
- Small prizes or rewards (optional)
- Tape



Instructions

How you will complete the activity.

- 1) Cut out the index cards provided. These will contain the treasure hunt challenge questions.
- 2) Hide these cards around the classroom or in a designated safe outdoor area, taping them under chairs, desks, or tucked into non-obvious spots.
- 3) Divide the class into small teams and give each team a stopwatch.
- 4) Explain the game: each team will hunt for a card, solve the problem as quickly as they can, and return to you for verification.
- 5) Start the timer when you say "Go!" Each team rushes to find their first card.
- 6) When a team thinks they have the correct answer, they come back to you for verification. If they get it right, the teacher keeps the card. If the answer is wrong, they can try again or hide the card back in its original spot and find a new card.
- 7) The game continues until all cards are found or you call time. The team with the most correct answers wins.
- 8) Discuss the game, focusing on the concepts taught on the cards.

Instructions

Cut out the cards below

1) 2, 4, 6

_____, _____, _____

2) 5, 10, 15

_____, _____, _____

3) (Add 1) 1, 3

_____, _____, _____

4) (Add 5) 20, 25, 30

_____, _____, _____

5) 30, 25, 20

_____, _____, _____

7) Start at 4, add 4 each time.

_____, _____, _____

8) Start at 90, subtract 5 each
time: 85, 80

_____, _____, _____, _____

Instructions

Cut out the cards below

9) An apple tree has 10 apples and people take 1 apple from the tree each day. How many apples will be left on the 5th day?

10) Start with 15 cars, add 2 more each day. How many cars will there be on the 4th day?

11) (Add 10, 20)

12) (Subtract 2) 18, 16, 14

13) Sam earns \$1 each day, What is the total after 6 days?

14) A carousal starts at 20 km/h and reduces speed by 5 km/h each hour. What is the speed after 2 hours?

15) 8, 16, 24

16) 25, 50, 75

Instructions

Cut out the cards below

17) Kelly read 5 pages today. She plans to read 5 more pages each day. What day will she read 50 pages?

18) Add \$2 each week starting from \$3. What is the total after 4 weeks?

19) 10, 80

20) 60, 70, 80

21) Tom buys 2 candies and gets 2 more each day. How many candies will he have on the 4th day?

22) 15, 14, 13

23) (Add 20) 40, 60, 80

24) (Subtract 10) 100, 90, 80

Instructions

Cut out the cards below

25) Start with \$5, earn \$2 more each day. What is the total after 5 days?

26) Subtract 3 starting from 15.

_____, _____, _____

27) You play video games every day starting with 10. You lose 2 each day. How many will there be after 5 days?

28) (Add 7) 14, 21, 28

_____, _____, _____

29) Katie has 20 candies, and she ate 2 each day. How many candies will be left after 5 days?

30) Max scores 5 points in a game and scores 2 more points each round. What is his score after the 4th round?

31) Cam starts the match with 10 golf balls. He loses 2 golf balls each hole. On which hole will he run out of golf balls?

32) A garden starts with 10 flowers. Each day, 4 new flowers bloom. How many total flowers are there after 6 days?

Patterning Quiz

Part 1

Continue the repeating patterns below by drawing 3 more pictures



Part 2

Circle the pattern core and continue the pattern

1 1 2 3 1 1 2 3 1 _____

3 6 2 2 2 3 6 2 2 2 _____





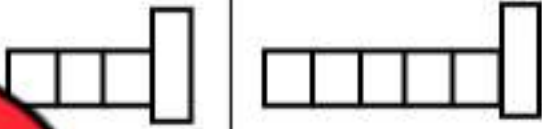
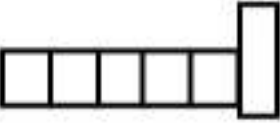


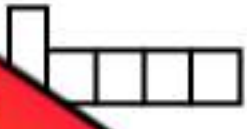



Part 3

Circle the pattern core and label



Part 4

Draw the last part of the pattern

1)				
2)				
3)				
4)				

Part 5

Solve the word problem below.

If you read 1 book on Monday, 2 books on Tuesday, 3 books on Wednesday, how many books would you read on Sunday if the pattern continued?

How many days would it take you to read 45 books?

Balance Pan Equations

Questions

How many ways can you balance the equation to equal 6

1)

$\underline{\quad} + \underline{\quad} = 6$

2)

$\underline{\quad} + \underline{\quad} = 6$

3)

$\underline{\quad} + \underline{\quad} = 6$

4)

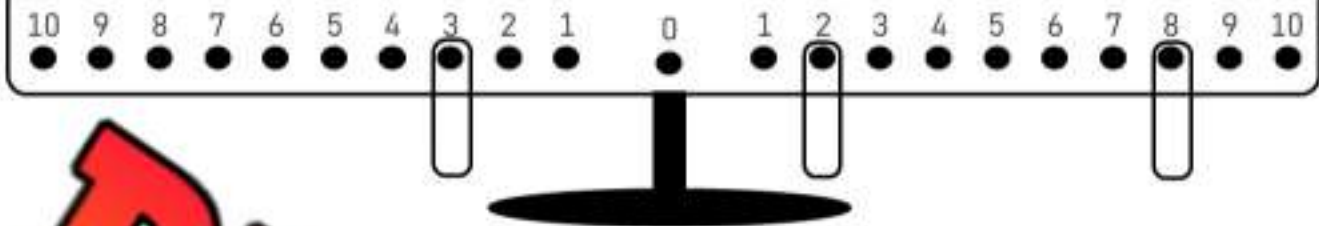
$\underline{\quad} + \underline{\quad} = 6$

Balance Pan Equations

Questions

Balance the equations below

1)



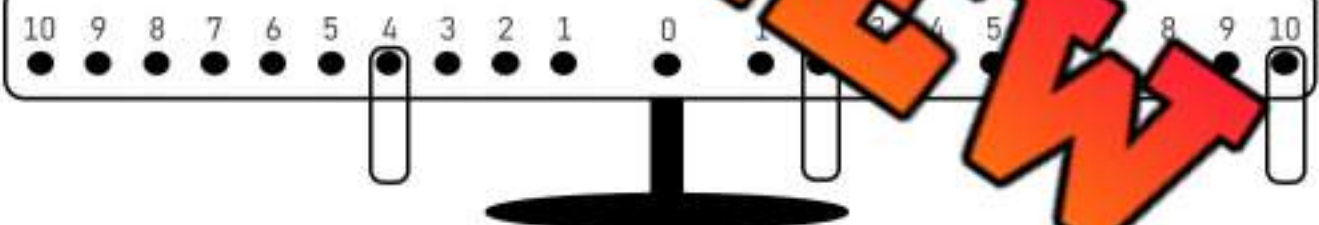
$$3 + \underline{\quad} = 2 + 8$$

2)



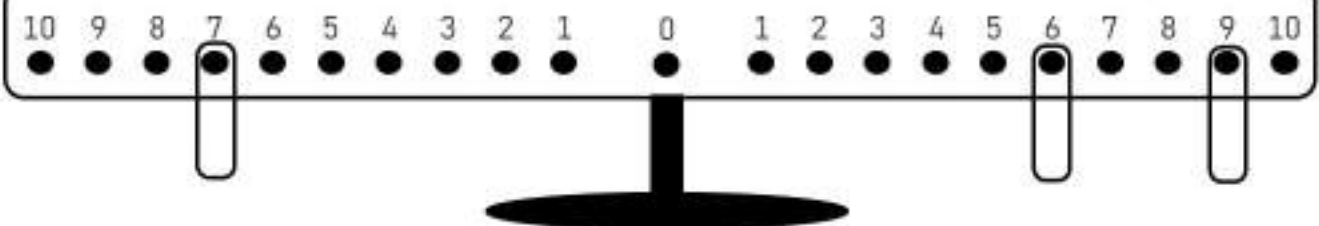
$$2 + \underline{\quad} = \underline{\quad} + \underline{\quad}$$

3)



$$4 + \underline{\quad} = 2 + 10$$

4)



$$7 + \underline{\quad} = 6 + 9$$

Pre-Algebra – Balancing Addition Equations

Balance the scales by putting the same amount of circles on each scale.

Answer: Add 6 circles to the scale to make them equal.



$$3 + 6 = 9$$

Question: How many balls do you need to add to balance the scales?



$$8 + \square = 11$$



$$6 + \square = 11$$



$$8 + \square = 14$$



$$5 + \square = 9$$



$$7 + \square = 12$$



$$2 + \square = 13$$



$$6 + \square = 10$$



$$3 + \square = 14$$



$$1 + \square = 12$$

Pre-Algebra – Balancing Addition Equations

Balancing equations means both sides of the equal sign must be the same.

Examples:

$$\begin{array}{c} 10 \\ \swarrow \searrow \\ 3 + 7 = \boxed{10} \end{array}$$

$$\begin{array}{c} 30 \\ \swarrow \searrow \\ 24 + 6 = \boxed{30} \end{array}$$

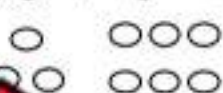
Questions

Fill in the missing number to balance the equation

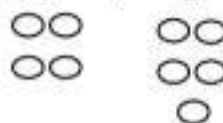
1) 4



2) 3 + 6 =



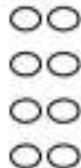
3) 4 + 5 =



4) 1 +



= 8



5) 6 +



= 10



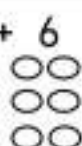
6) 4 +



= 12



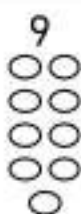
7) + 6 = 10



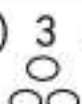
8) + 7 = 11



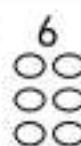
10) + 2 = 9



11) 3 + = 8



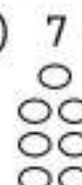
12) 6 + 7 =



13) + 6 = 16



14) 7 + = 9



15) 3 + 12 =



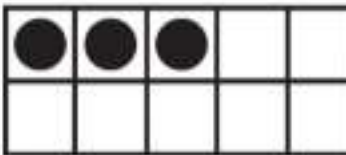
Making Tens – Changing Variables


When we make tens, we are using a variable. The ten is the constant and the number we use to add to 10 is the variable.

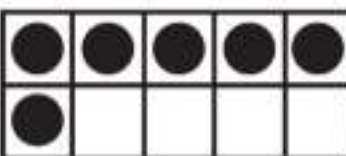
Questions

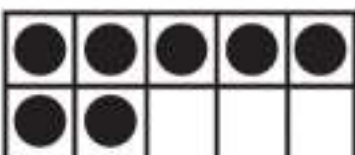
How many more dots do you need to add to make 10?

1) 
 $8 + \underline{\quad} = 10$

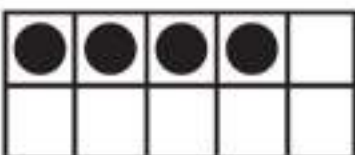
2) 
 $3 + \underline{\quad} = 10$


3) 
 $2 + \underline{\quad} = 10$

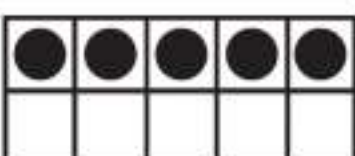
4) 
 $6 + \underline{\quad} = 10$

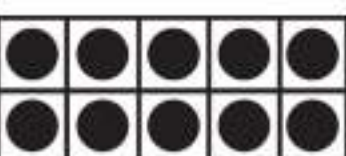
5) 
 $7 + \underline{\quad} = 10$

6) 
 $9 + \underline{\quad} = 10$

7) 
 $4 + \underline{\quad} = 10$

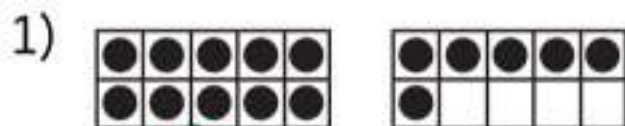
8) 
 $1 + \underline{\quad} = 10$

9) 
 $5 + \underline{\quad} = 10$

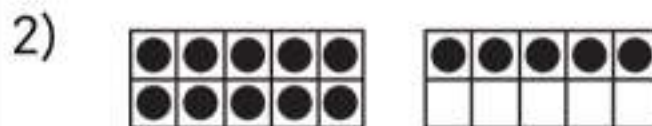
10) 
 $10 + \underline{\quad} = 10$

Making 20 – Changing Variables**Questions**

How many more dots do you need to add to make 20?



$$\underline{\quad} = 20$$



$$15 + \underline{\quad} = 20$$



$$10 + \underline{\quad} = 20$$



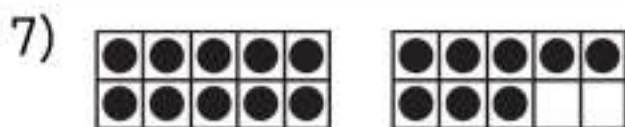
$$12 + \underline{\quad} = 20$$



$$13 + \underline{\quad} = 20$$



$$\underline{\quad} + 20 = 20$$



$$18 + \underline{\quad} = 20$$



$$11 + \underline{\quad} = 20$$



$$14 + \underline{\quad} = 20$$



$$17 + \underline{\quad} = 20$$

Algebra Jeopardy

Objective

What are we learning about?

To reinforce students' understanding of basic algebraic concepts and their application to solve simple equations and word problems in a fun and competitive game format.

Materials

What materials will need for the activity.

- Jeopardy board and questions
- Buzzer or bell



Instructions

How you will complete the activity.

1. Print the Jeopardy board on the next page.
2. Divide the class into two teams.
3. Ask one team to go first by selecting a dollar value.
4. Read the question aloud from the dollar value.
5. The first team to ring the bell or buzzer gets to answer.
6. If they answer correctly, award them the points. If not, another team can answer.
7. Continue the game until all questions have been answered.
8. Tally the points to determine the winning team.
9. Conclude by discussing what they learned about the topic in the questions.

Jeopardy Questions

Ask students the questions below

\$100	\$200	\$300	\$400	\$500
$__ + 2 = 7$	$__ + 3 = 6$	$10 + __ = 20$	$3 + __ = 12$	$4 + __ + 3 = 10$
$__ + 15 = 25$	$__ + 12 = 32$	$20 + __ = 53$	$__ + 15 = 40$	$40 + 25 + __ = 100$
Balance the equation: $1 + 1 = 1 + 1$	Balance the equation: $2 + 2 = 4$	Balance the equation: $5 + 2 = __ + 4$	Balance the equation: $6 + 4 = __ + 7$	Balance the equation: $8 + 6 = __ + 10$
Balance the equation: $2 + 2 = 1 + __$	Balance the equation: $3 + 4 = __ + 7$	Balance the equation: $1 + 7 + 3 = __ + 11$	Balance the equation: $9 + 2 + __ = 8 + 11$	Balance the equation: $__ + 10 = 12 + __$
Emily had 5 books. She received some more and now has 12 books. How many books did she receive?	David had 10 Legos. He received some more and now has 22 Legos. How many Legos did he receive?	Ethan had 1 rock. He found some more and now has 28 rocks. How many rocks did he find?	Carol had some seeds. She received 7 seeds from one store and 14 from another. She now has 25 seeds. How many seeds did she start with?	Emma has some seeds. She then buys 7 seeds from one store and 14 from another. She now has 25 seeds. How many seeds did she start with?
John had 3 apples. He bought some more and now has 10 apples. How many apples did he buy?	Emma had 9 pencils. She bought some more and now has 16 pencils. How many pencils did she buy?	Sarah has some apples. She buys 6 more and now has 15 apples. How many apples did she start with?	Kevin has some stickers. He then gets 8 stickers, then 3 more, and now has 18 stickers. How many stickers did he start with?	Sophia has some coins. She then finds 5 coins, then 6 more, and now has 28 coins. How many coins did she start with?

Addition to 20 – Are They Equal?

Are the equations equal? Put a slash through the equal sign for any equations that are not equal.

$5 + 3 = 8$

$8 + 4 \neq 13$

$14 + 6 = 20$



Questions

Put a slash (\neq) through the equal sign if it is not balanced

1) $5 + 3 = 8$	2) $4 + 4 = 8$	3) $3 + 3 = 5$
4) $4 + 6 = 11$	5) $7 + 3 = 10$	6) $3 + 5 = 8$
7) $9 + 3 = 13$	8) $7 + 5 = 12$	9) $9 + 7 = 16$
10) $8 + 4 = 13$	11) $11 + 5 = 16$	12) $8 + 7 = 15$
13) $10 + 10 = 19$	14) $8 + 10 = 18$	15) $13 + 6 = 19$
16) $13 + 3 = 17$	17) $11 + 6 = 18$	18) $14 + 6 = 20$

Addition Expressions – Equal?

Are the expressions equal? Put a slash through the equal sign for any equations that are not equal.

Examples: $5 + 3 = 2 + 6$ $4 + 5 \neq 7 + 1$



Questions Put a slash (\neq) through the equal sign if it is not balanced

1) $7 + 3 = 5 + 7$	7) $6 + 3 = 2 + 5$
2) $7 + 3 = 5 + 7$	8) $6 + 5 = 4 + 8$
3) $8 + 5 = 4 + 7$	9) $7 + 1 = 1 + 9$
4) $7 + 7 = 5 + 8$	10) $9 + 3 = 7 + 4$
5) $14 + 2 = 11 + 5$	11) $16 + 3 = 14 + 5$
6) $23 + 4 = 20 + 7$	12) $30 + 5 = 33 + 3$

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Put a slash (\neq) through the equal sign if the equations are not balanced.

a) $12 + 3 = 15 + 0$

b) $20 + 6 = 25 + 10$

c) $25 + 10 = 30 + 5$

d) $30 + 2 = 29 + 4$

Name: _____

Put a slash (\neq) through the equal sign if the equations are not balanced.

a) $12 + 3 = 15 + 0$

b) $20 + 6 = 25 + 10$

c) $25 + 10 = 30 + 5$

d) $30 + 2 = 29 + 4$

Name: _____

Put a slash (\neq) through the equal sign if the equations are not balanced.

a) $12 + 3 = 15 + 0$

b) $20 + 6 = 25 + 10$

c) $25 + 10 = 30 + 5$

d) $30 + 2 = 29 + 4$

Name: _____

Put a slash (\neq) through the equal sign if the equations are not balanced.

a) $12 + 3 = 15 + 0$

b) $20 + 6 = 25 + 10$

c) $25 + 10 = 30 + 5$

d) $30 + 2 = 29 + 4$

Addition – Which Equation Matches?

Two of the equations equal the same number. Which one matches the shaded in equation?

Example

$4 + 7$

$9 + 2$

$5 + 5$



Questions Circle the equation that matches the shaded in equation

1) $5 + 2$

$6 + 2$

$4 + 3$

2) $6 + 3$

$5 + 5$

$2 + 8$

3) $8 + 4$

$7 + 7$

$6 + 6$

4) $5 + 8$

$4 + 7$

5) $8 + 2$

$7 + 3$

$5 + 6$

6) $10 + 3$

$8 + 5$

$6 + 6$

7) $3 + 6$

$4 + 7$

$8 + 1$

Addition – Which Equation Doesn't Belong?

Two of the equations equal the same. One of the equations does not belong!

Example

$$4 + 3 \quad 5 + 1 \quad 2 + 5$$



Questions Circle the equation that doesn't belong!

1) $4 + 4$ $3 + 7$ $2 + 9$

2) $7 + 4$ $4 + 7$ $9 + 3$

3) $2 + 3$ $5 + 8$ $4 + 2$

4) $3 + 8$ $7 + 7$

5) $8 + 4$ $6 + 9$ $10 + 5$

6) $12 + 3$ $10 + 5$ $8 + 6$

7) $7 + 4$ $10 + 2$ $8 + 3$

Addition – Find the Variable

A **variable** is a letter that represents an unknown number. When we don't know a number, we can use a letter to take the place of the unknown number.

Example: $8 + n = 15$

We can figure out the unknown number by balancing the equation. In this equation, $n = 7$.



Question Find out the value of the variable

1) $7 + n = 10$ $n =$	2) $9 + 5 = 8$ $n =$	3) $10 + n = 13$ $n =$
4) $6 + 6 = p$ $p =$	5) $7 + p = 12$ $p =$	6) $p + 4 = 12$ $p =$
7) $7 + y = 14$ $y =$	8) $y + 6 = 14$ $y =$	9) $8 + y = 15$ $y =$
10) $5 + t = 15$ $t =$	11) $14 + t = 20$ $t =$	12) $20 + t = 30$ $t =$
13) $22 + a = 28$ $a =$	14) $30 + a = 40$ $a =$	15) $24 + a = 30$ $a =$
16) $27 + 6 = s$ $s =$	17) $35 + s = 41$ $s =$	18) $42 + s = 48$ $s =$

Using Variables to Solve Addition Equations

There are some instances where we know the values of variables and need to plug them into an equation. For example:

$$a + b + c = ?$$

$$5 + 3 + 7 = 15$$

$$a = 5$$

$$b = 3$$

$$c = 7$$



Question Find out the value of the variable

$$a + b + c = 8 \quad c = 2$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$n + y + t = \quad n = 5 \quad y = 10 \quad t = 5$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$c + r + p = \quad c = 4 \quad r = 8 \quad p = 6 \quad g = 8 \quad h = 4 \quad k = 5$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$e + c + g = \quad e = 3 \quad c = 7 \quad g = 10$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$a + c + t = 8 \quad c = 3$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$a + b + c = \quad a = 5 \quad b = 5 \quad c = 6$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$n + y + t = \quad n = 5 \quad y = 10 \quad t = 5$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$c + r + p = \quad c = 4 \quad r = 8 \quad p = 6$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$g + h + k = \quad g = 8 \quad h = 10 \quad k = 10$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$e + c + g = \quad e = 2 \quad c = 4 \quad g = 12$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$a + b + c = \quad a = 5 \quad b = 15 \quad c = 20$$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

Finding the Missing Information – To 20

Find out how many coins are in the bag using the information given to you.

Example

There are 9 coins in total and 5 outside of the bag.

Therefore, there are 4 in the bag

$$5 + 4 = 9$$



Instructions How many coins are in the bags below?

1)

7



Answer: _____

2)

10



Answer: _____

3)

12



Answer: _____

15



Answer: _____

5)

17



Answer: _____

6)

20



Answer: _____

Finding the Missing Information – To 30**Instructions**

How many coins are in the bags below?

1)  15

Answer: _____

2)  17

Answer: _____

2)  22

Answer: _____

4)  24

Answer: _____

5)  25

Answer: _____

 27

Answer: _____

7)  20

Answer: _____

8)  30

Answer: _____

Pre-Algebra – Balancing Subtraction Equations

Balance the scales by taking away circles from the scale.

Answer: take 4 circles from the scale to make them equal.



$$7 - 4 = 3$$

Instruction: How many balls do you need to take away to balance the scales?



$$11 - \square = 8$$



$$8 - \square = 10$$



$$10 - \square = 4$$



$$8 - \square = 1$$



$$11 - \square = 3$$



$$13 - \square = 2$$



$$10 - \square = 4$$



$$14 - \square = 1$$



$$4 - \square = 0$$

Pre-Algebra – Balancing Subtraction Equations

Balancing equations means both sides of the equal sign must be the same.

Examples:

$$\begin{array}{c} 3 \\ \wedge \\ 7 - 4 = \boxed{3} \end{array}$$

$$\begin{array}{c} 8 \\ \wedge \\ 14 - 6 = \boxed{8} \end{array}$$

Questions

Fill in the missing numbers to balance the equations

1) 4



$$- \square =$$

2) 3 - 2 =



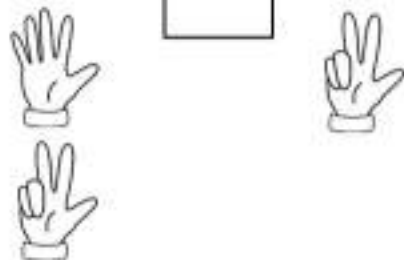
$$= \square$$

3) 5 - 5 =



$$= \square$$

4) 8 - \square = 3



5) \square - 2 =



6) 10 - \square = 6



7) \square - 6 = 2



8) \square - 7 = 4



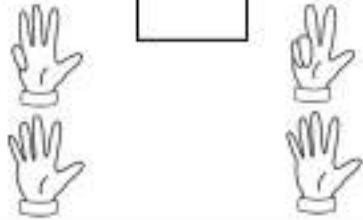
9) \square - 10 =



10) \square - 2 = 9



11) 9 - \square = 8



12) 6 - 2 = \square



Subtraction to 20 – Are They Equal?

Are the equations equal? Put a slash through the equal sign for any equations that are not equal.

$7 - 2 = 5$

$12 - 3 \neq 8$

$15 - 3 = 12$



Questions Put a slash \neq through the equal sign if it is not balanced

1) $8 - 2 = 3$

2) $4 - 2 = 3$

3) $5 - 2 = 3$

4) $6 - 3 = 3$

5)

6) $8 - 3 = 4$

7) $7 - 2 = 5$

8) $9 - 3 =$

9) $10 - 4 = 6$

10) $12 - 4 = 9$

11) $11 - 3 = 8$

12) $15 - 5 = 10$

13) $15 - 5 = 11$

14) $16 - 3 = 13$

15) $17 - 4 = 12$

16) $18 - 0 = 0$

17) $16 - 3 = 13$

18) $20 - 5 = 14$

Subtraction – Which Equation Matches?

Two of the equations equal the same number. Which one matches the shaded in equation?

Example:

$9 - 4$

$8 - 3$

$10 - 6$



Questions

Circle the equation that matches the shaded in equation

1)

$5 - 2$

$4 - 1$

$7 - 3$

2)

$8 - 4$

$5 - 2$

$7 - 3$

3)

$10 - 2$

$9 - 2$

$9 - 1$

4)

$7 - 2$

$6 - 1$

5)

$12 - 3$

$11 - 2$

$9 - 1$

6)

$15 - 5$

$9 - 0$

$10 - 0$

7)

$9 - 5$

$8 - 3$

$10 - 6$

Name: _____

130

Matching Game: Do The Equations Match

Objective

What are we learning about?

To enhance students' understanding of equality within addition and subtraction equations. Students will identify and match pairs of equations that yield the same result, fostering critical thinking and problem-solving skills in a collaborative group setting.

Materials

What you will need for the activity.

- Pre-prepared pre-e cards.
- Small bags or envelopes to hold the cards for each group

Instructions

How you will complete the activity.

1. Before the class, the teacher will cut out the prepared matching game cards.
2. Divide the students into small groups and give each group a small envelope containing a set of the matching cards.
3. In their groups, students will spread out the cards face down on their table.
4. Each person takes a turn to try to match two cards. They will need to solve both equations to see if they match (equal the same).
5. If they find a correct match, they keep the cards out and continue with their next turn. If the cards don't match, they turn them back over in the same place, and the next player takes a turn.
6. The activity continues until all pairs are correctly matched within each group.



Cards

Matching Game Cards

$12 + 8$

$10 + 10$

$25 - 5$

$18 + 22$

$20 + 20$

$40 - 5$

$30 + 5$

$20 + 12$

$10 + 22$

PREVIEW

Cards

Matching Game Cards

$50 - 25$

$40 - 15$

$15 + 20$

$10 + 25$

$60 - 15$

$10 + 5$

$38 + 12$

$25 + 20$

$70 - 30$

$40 + 10$

PREVIEW

Cards

Matching Game Cards

$45 + 15$

$30 + 30$

$60 + 10$

$55 + 5$

$40 + 15$

$90 - 40$

$50 +$

$65 + 10$

$50 + 25$

PREVIEW

Subtraction – Find the Variable

A **variable** is a letter that represents an unknown number. When we don't know a number, we can use a letter to take the place of the unknown number.

Example: $18 - n = 5$

We can figure out the unknown number by balancing the equation. In this equation, $n = 13$.



Question: Find out the value of the variable

1) $9 - n = 5$ $n =$	2) $15 - 5 = 5$ $n =$	3) $3 - n = 0$ $n =$
4) $6 - 2 = p$ $p =$	5) $9 - 5 = 4$ $p =$	6) $p - 4 = 2$
7) $10 - y = 3$ $y =$	8) $y - 7 = 0$ $y =$	9) $12 - y = 10$ $y =$
10) $15 - t = 5$ $t =$	11) $17 - t = 13$ $t =$	12) $19 - t = 12$ $t =$
13) $22 - a = 14$ $a =$	14) $25 - a = 20$ $a =$	15) $27 - a = 23$ $a =$
16) $29 - 4 = s$ $s =$	17) $30 - s = 30$ $s =$	18) $40 - s = 19$ $s =$

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Find out the value of the variables

a) $n - 6 = 12$ $n =$ _____

b) $28 - y = 19$ $y =$ _____

c) $41 - t = 15$ $t =$ _____

Name: _____

Find out the value of the variables

a) $n - 6 = 12$ $n =$ _____

b) $28 - y = 19$ $y =$ _____

c) $41 - t = 15$ $t =$ _____

Name: _____

Find out the value of the variables

a) $n - 6 = 12$ $n =$ _____

b) $28 - y = 19$ $y =$ _____

c) $41 - t = 15$ $t =$ _____

Name: _____

Find out the value of the variables

a) $n - 6 = 12$ $n =$ _____

b) $28 - y = 19$ $y =$ _____

c) $41 - t = 15$ $t =$ _____

Using Variables to Solve Subtraction Equations

There are some instances where we know the values of variables and need to plug them into an equation. **For example:**

$$a - b = c$$

$$a = 7$$

$$b = 4$$

$$7 - 4 = c$$

$$c = 3$$



Question

Find out the value of the variable

$$a - b = c \quad a = 7 \quad b = 2$$

$$\underline{\quad} - \underline{\quad} = c$$

$$c =$$

$$e - n = f \quad e = 10 \quad n = 5$$

$$\underline{\quad} - \underline{\quad} = f$$

$$f =$$

$$r - y = k \quad r = 8 \quad y = 3 \quad g = h \quad t = 9 \quad g = 6$$

$$\underline{\quad} - \underline{\quad} = k$$

$$k =$$

$$\underline{\quad} - \underline{\quad} = h$$

$$h =$$

$$a - b = c \quad a = 10 \quad b = 8$$

$$\underline{\quad} - \underline{\quad} = c$$

$$c =$$

$$e - n = f \quad e = 12 \quad n = 6$$

$$\underline{\quad} - \underline{\quad} = f$$

$$f =$$

$$r - y = k \quad r = 15 \quad y = 4$$

$$\underline{\quad} - \underline{\quad} = k$$

$$k =$$

$$t - g = h \quad t = 12 \quad g = 8$$

$$\underline{\quad} - \underline{\quad} = h$$

$$h =$$

$$a - b = c \quad a = 18 \quad b = 5$$

$$\underline{\quad} - \underline{\quad} = c$$

$$c =$$

$$e - n = f \quad e = 22 \quad n = 7$$

$$\underline{\quad} - \underline{\quad} = f$$

$$f =$$

$$r - y = k \quad r = 27 \quad y = 5$$

$$\underline{\quad} - \underline{\quad} = k$$

$$k =$$

$$t - g = h \quad t = 29 \quad g = 4$$

$$\underline{\quad} - \underline{\quad} = h$$

$$h =$$

Task Cards: Mystery Number Detectives

Objective

What are we learning about?

To help students understand and solve one-step algebraic equations by finding the value of a missing number.

Materials

What you will need for the activity.

- 2 sets of task cards
- Separate sheets of paper for answers
- Pencils



Instructions

How do you complete the activity?

1. Introduce the concepts covered in the task cards.
2. Organize the students into pairs and provide each pair with their sets of task cards.
3. Give each pair an answer recording sheet to document their answers.
4. Encourage teamwork by having students collaborate on their problem-solving process.
5. Allow students to select any task card to begin with, emphasizing that they can complete the cards in any order they prefer.
6. Instruct students to record the letter of their chosen answer (A, B, or C) on their answer sheet beside the task card's number.
7. Consider using a timer to create a dynamic challenge, adjusting the duration to fit the lesson's objectives and complexity.
8. After the activity, review the answers collectively, discussing any challenging questions and strategies used to solve them.
9. Have students reflect on the activity, sharing the methods they applied and obstacles they overcame.

Task Cards

Cut out the task cards below

Card 1:

$$25 - x = 20$$

solve for x

- a) 1 b) 3 c) 4

Card 2:

$$50 - \bullet = 30$$

solve for \bullet

- a) 20 b) 15 c) 10

Card 3:

$$10 + 25 = \square$$

solve for \square

- a) 6 b) 7 c) 9

Card 4:

$$35 - \bullet = 28$$

solve for \bullet

- a) 7 b) 5 c) 6

Card 5:

$$12 - n = 9$$

solve for n

- a) 2 b) 3 c) 4

Card 6:

$$m + 15 = 32$$

solve for m

- a) 15 b) 17 c) 14

Card 7:

Sara has 32 apples. She gets some more and now has 50. How many did she get?

- a) 18 b) 20 c) 22

Card 8:

Ben had 40 marbles. He lost some marbles and now has 25. How many did he lose?

- a) 12 b) 14 c) 15

Task Cards

Cut out the task cards below

Card 9:

A plant was 5 cm tall. It grew ___ centimeters and is now 27 cm tall. How much did it grow?

- a) 22 cm b) 20 cm c) 18 cm

Card 10:

Lucy baked 48 cupcakes. She gave some away and now has 30. How many did she give away?

- a) 16 b) 18 c) 20

Card 12:

$$17 + k = 29$$

solve for k

- a) 12 b) 15 c) 12

Card 13:

$$30 - a = 10$$

solve for a

- a) 20 b) 18 c) 15

Card 14:

$$60 - b = 45$$

solve for b

- a) 20 b) 15 c) 25

Card 15:

$$22 + c = 40$$

solve for c

- a) 18 b) 20 c) 25

Card 16:

$$35 - d = 15$$

solve for d

- a) 18 b) 20 c) 25

Task Cards

Cut out the task cards below

Card 17:

$$25 + e = 55$$

solve for e

- a) 30 b) 32 c) 28

Card 18:

$$70 - f = 40$$

solve for f

- a) 35 b) 28 c) 30

Card 20:

Sam has 45 candies. He gets some more candies and now has 75. How many candies did he get?

- a) 25 b) 30 c) 28

Emma had 50 candies. She lost some candies and now has 30. How many did she lose?

- a) 20 b) 18 c) 22

Card 21:

A balloon was 10 inches. It expanded by ___ inches and is now 40 inches. How much did it expand?

- a) 30 b) 28 c) 32

Card 22:

Anna had 20 cookies. She ate 15 cookies and now has 50. How many cookies did she eat?

- a) 25 b) 30 c) 28

Card 23:

$$100 - k = 60$$

solve for k

- a) 40 b) 35 c) 50

Card 24:

$$19 + l = 40$$

solve for l

- a) 21 b) 22 c) 20

Name: _____

142

Task Cards: Mystery Number Detectives

Answers

Record your answers below

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

PREVIEW

Variables and Equations – Unit Quiz

Part 1Put a slash (\neq) through the equal sign if it is not balanced

1) $5 + 10 = 15$	2) $10 + 6 = 12$	3) $15 + 10 = 25$
4) $10 + 6 = 12$	5) $18 + 6 = 24$	6) $19 + 5 = 24$
7) $5 - 5 = 0$	8) $10 - 4 = 6$	9) $16 - 5 = 11$
10) $21 - 6 = 15$	11) $10 - 4 = 6$	12) $28 - 5 = 22$

Part 2

Circle the equation that matches the solution

1)	$7 - 2$	$8 - 1$	
2)	$11 - 4$	$7 - 0$	$10 - 4$
3)	$8 + 6$	$9 + 5$	$10 + 5$
4)	$11 + 6$	$9 + 9$	$7 + 10$

Part 3

How many coins are in the bags below?

1)

9



Answer: _____

2)

12



Answer: _____

3)

15



Answer: _____

4)

20



Answer: _____

Part 4

Circle the equation that doesn't work!

1)

$4 + 6$

3 +

$2 + 9$

2)


$9 - 5$

$12 - 7$

Part 5

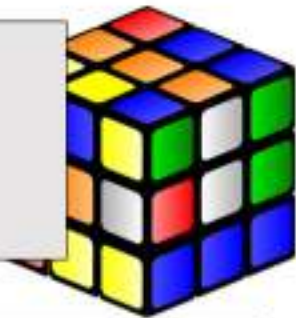
Solve the word problem below. Make sure to write the equation.

Alexa saved 27 dollars from her allowance. She was given some money from her grandmother for her birthday. She now has 40 dollars. How much did her grandmother give her?




Grade 2

Shape and Space



	Curriculum Expectations	Pages
SS2.1	Demonstrate understanding of nonstandard units for linear measurement by: <ul style="list-style-type: none">• describing the choice and appropriate use of nonstandard units• estimating• measuring• comparing and analyzing measurements.	5 - 31
SS2.2	Preview of 100 pages from this product that contains 240 pages total.	
SS2.3	including: <ul style="list-style-type: none">• cubes• spheres• cones• cylinders• pyramids.	65 - 101
SS2.4	Describe, compare, and construct 2-D shapes, including: <ul style="list-style-type: none">• triangles• squares• rectangles• circles.	54 - 64 , 102 - 129
SS2.5	Demonstrate understanding of the relationship between 2-D shapes and 3-D objects.	49 - 53
TQ	Tests and Quizzes	47 - 48 , 130 - 132



Name: _____

5

Non – Standard Units

Non-Standard units are not all the same size. A standard unit could be your hand, finger tip, or wingspan.



Questions

Follow the instructions below

1) Trace one of your fingers below. Then trace a friend's finger beside it.

My Finger

My Friend's Finger

2) Trace your pencil below. Then trace a friend's pencil beside it.

My Pencil

My Friend's Pencil

PREVIEW

Name: _____

7

Using Non – Standard Units - Fingertips

Questions

Use your fingertip to measure the lines below



1) _____
_____ fingertips

2) _____
_____ fingertips

3) _____
_____ fingertips

4) _____
_____ fingertips

5) _____
_____ fingertips

6) _____
_____ fingertips

7) _____
_____ fingertips

8) _____
_____ fingertips

9) _____
_____ fingertips

10) _____
_____ fingertips

11) _____
_____ fingertips

12) _____
_____ fingertips

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Use your fingertip to measure the lines below

1) _____ fingertips

2) _____ fingertips

3) _____ fingertips

Name: _____

Use your fingertip to measure the lines below

1) _____ fingertips

2) _____ fingertips

3) _____ fingertips

Name: _____

Use your fingertip to measure the lines below

1) _____ fingertips

2) _____ fingertips

3) _____ fingertips

Name: _____

Use your fingertip to measure the lines below

1) _____ fingertips

2) _____ fingertips

3) _____ fingertips

Name: _____

9

Drawing Lengths Using Fingertips

Questions

Draw lines that are the lengths below



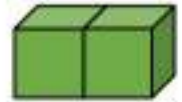
1) 3 fingertips	2) 6 fingertips
3) 3 fingertips	4) 9 fingertips
5) 4 fingertips	6) 7 fingertips
7) 1 fingertip	8) 1 fingertip
9) 2 fingertips	10) 10 fingertips
11) 14 fingertips	
12) 17 fingertips	

PREVIEW

Measuring Using Non – Standard Units – Blocks

Questions

Measure the following objects using blocks



_____ Blocks



2) _____ Blocks



3) _____ Blocks



4) _____ Blocks



5) _____ Blocks



6) _____ Blocks



7) _____ Blocks



8) _____ Blocks



9) _____ Blocks

PREVIEW

Measuring Using Non – Standard Units – Blocks

We can estimate the length of objects by measuring them using standard units. Use cubes to measure the length of objects in your class.



= 6 units or 6 cubes



Directions: Find objects in your class that you can measure

Object Name	Length # of Cubes
1)	
2)	
3)	
4)	
5)	
6)	
7)	
8)	

Using Non - Standard Units – Pencils

We can estimate the length of something by non-standard units. Try using your pencil to measure things.



= 6 units or 6 pencils

Directions

Find 8 objects in your room that you can measure

Object Name	# of Pencils	Object Name	Length # of Pencils
1)		5)	
2)		6)	
3)		7)	
4)		8)	

Using Non - Standard Units - Wingspan

When we need to measure the length of something longer, like a doorway, many people will use their arms to measure the length. This is a fast way to get a rough estimate of how long something is without using a measuring tape.



Doorway = 1 wingspan length

Our wingspan is used to measure longer distances.
Examples: width of classroom, length of gymnasium




Directions

Find a length in your school that you could measure with your wingspan. Name it and how many wingspans it is.

Length Name	Length # of Wingspans	Length Name	Length # of Wingspans
1)			
2)		6)	
3)		7)	
4)		8)	

Measuring Length – Which Unit ?

Directions Circle which non-standard unit you would use to measure the lengths below

What You Are Measuring	Unit 1 	Unit 2 	Unit 3 
1) The length of an apple	Paper Clip	Pencil	Wingspan
2) The width of a desk	Paper Clip	Pencil	Wingspan
3) The width of the classroom	Paper Clip	Pencil	Wingspan
4) The length of the gymnasium	Paper Clip	Pencil	Wingspan
5) The length of your finger	Paper Clip	Pencil	Wingspan
6) The length of a book	Paper Clip	Pencil	Wingspan
7) The length of a bus	Paper Clip	Pencil	Wingspan
8) The length of your foot	Paper Clip	Pencil	Wingspan
9) The length of a cookie	Paper Clip	Pencil	Wingspan
10) The width of a window	Paper Clip	Pencil	Wingspan

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Circle which non-standard unit you would use to measure the lengths below.

1) The height of a juice box.	Paper Clip	Pencil	Wing-span
2) The width of a hallway.	Paper Clip	Pencil	Wing-span
3) The height of your chair.	Paper Clip	Pencil	Wing-span

Name: _____

Circle which non-standard unit you would use to measure the lengths below.

1) The height of a juice box.	Paper Clip	Pencil	Wing-span
2) The width of a hallway.	Paper Clip	Pencil	Wing-span
3) The height of your chair.	Paper Clip	Pencil	Wing-span

Name: _____

Circle which non-standard unit you would use to measure the lengths below.

1) The height of a juice box.	Paper Clip	Pencil	Wing-span
2) The width of a hallway.	Paper Clip	Pencil	Wing-span
3) The height of your chair.	Paper Clip	Pencil	Wing-span

Name: _____

Circle which non-standard unit you would use to measure the lengths below.

1) The height of a juice box.	Paper Clip	Pencil	Wing-span
2) The width of a hallway.	Paper Clip	Pencil	Wing-span
3) The height of your chair.	Paper Clip	Pencil	Wing-span

Activity: Creating and Measuring a Creature

Objective

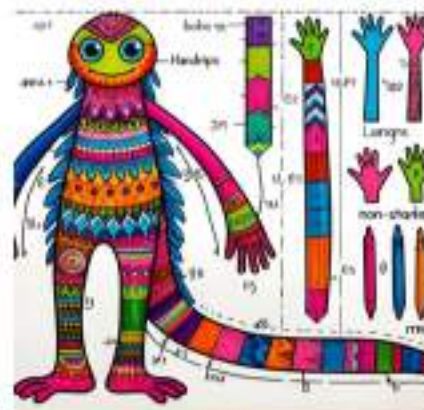
What are we learning about?

Students will understand the concept of measurement using non-standard units by creating a creature with specific features and measuring those features with their own units.

Materials

What you will need for the activity.

- Large sheets of drawing paper
- Crayons, markers, colored pencils
- A variety of items for measuring (e.g., bottle caps, small toys, thumbprint hands)
- Handouts with measurement recording sheets
- Pencils



Instructions

How you will complete the activity.

- 1) Explain the concept of non-standard units by having students measure something that we can use everyday items to measure things instead of standard units. Show examples like using a hand or a toy to measure distance.
- 2) Ask each student to choose an item they can trace (e.g., handprint, bottle cap, a small toy).
- 3) Have students trace their chosen item multiple times on a large sheet of paper to create their own non-standard unit. For instance, they might trace the handprint or a bottle cap 10 times in a row to create a line of "units."
- 4) Instruct students to draw a creature/monster that includes specific features: a body, two arms, two legs, and a tail. They should use their non-standard units to determine the length of each feature (e.g., "The body is 4 handprints long, each arm is 2 handprints long, each leg is 3 handprints long, and the tail is 5 handprints long").
- 5) Have students colour and decorate their creatures.
- 6) Distribute the handouts with measurement recording sheets. Students should measure each part of their creature using their non-standard units and record the lengths on the sheet.
- 7) After measuring and recording, have students share their creatures and their measurements with the class.

Examples

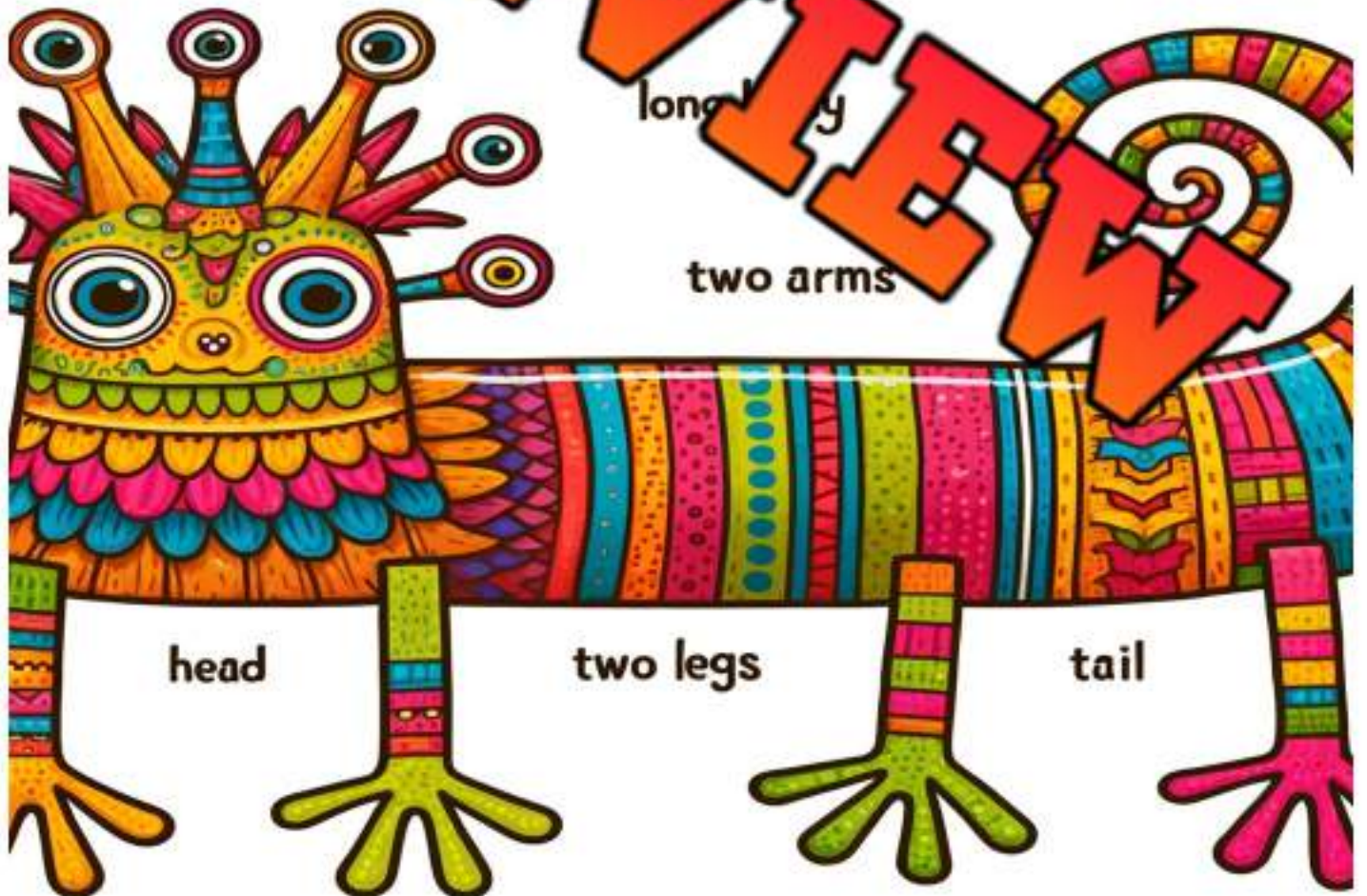
Check out the examples below



PREVIEW

long body

two arms



head

two legs

tail

Name: _____

19

Curriculum Connection
SS2.1

Create your non-standard unit of measurement below. Choose an object and draw it several times across the page.

Instructions

PREVIEW

Recording Sheet

Answer the questions below.

1) What is the name of your creature/monster?

2) What non-standard unit of measurement did you use?

3) Fill in the measurements of your creature/monster below using your non-standard measurement. Add your own body parts that you can measure.

Body

Leg

Arm

Tail

4) If you could choose a different item to use as a non-standard unit, what would it be and why?

Comparing Lengths - Finger Units

Part 1 Estimate which object is longer by using your fingertip. Circle the longer object

1)



2)



3)



4)



5)



6)

Part 2 Measure the lengths with your finger and write the number below. Circle the larger image

1)



_____ fingers

_____ fingers

2)



_____ fingers

_____ fingers

3)



_____ fingers

_____ fingers

4)



_____ fingers

_____ fingers

5)



_____ fingers

_____ fingers

6)



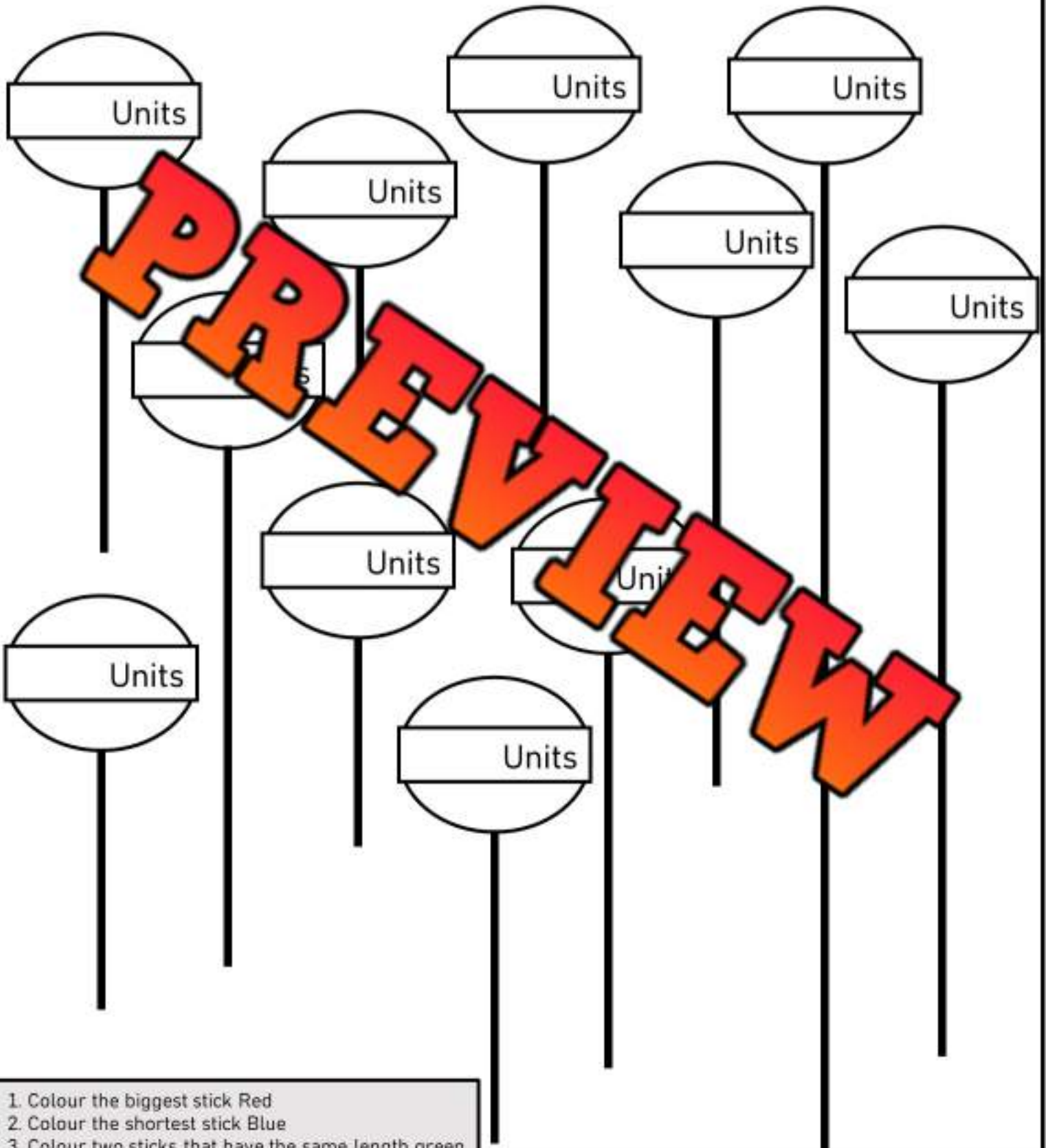
_____ fingers

_____ fingers

Measuring Lollipops

Questions

Measure the lengths of the lollipop sticks using any non-standard unit





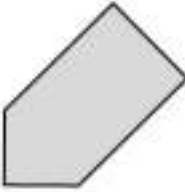





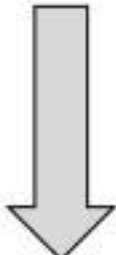



1. Colour the biggest stick Red
2. Colour the shortest stick Blue
3. Colour two sticks that have the same length green

Measuring objects – Changing Orientation

Questions

Measure the objects below using your fingertips

Measure the object in column 1 and column 2. These shapes are the same, but they have been moved or rotated.

Column 1	Column 2	Column 1	Column 2
1)  _____ fingertips	 _____ fingertips	4)  _____ fingertips	 _____ fingertips
2)  _____ fingertips	 _____ fingertips	5)  _____ fingertips	 _____ fingertips
3)  _____ fingertips	 _____ fingertips	6)  _____ fingertips	 _____ fingertips

Activity: Length Detective

Objective

What are we learning about?

Students will learn to compare lengths of various objects to understand the concept of longer and shorter.

Materials

What you will need for the activity.

- A set of objects of different lengths (e.g., pencils, erasers, books)
- Sets of 8 objects of each of the different lengths
- Paper and pencil
- Handouts with comparison recording sheets



Instructions

How you will complete the activity.

- 1) Introduce the concept of comparing lengths. Explain to students how to determine which objects are longer or shorter without using a ruler, just by looking at them and placing them next to each other.
- 2) Divide students into small groups and give each group a set of 8 objects of different lengths.
- 3) Ask each student in the group to choose two objects from the set and place them side by side to compare their lengths. They should decide which object is longer and which is shorter.
- 4) Have students record their comparisons on the handout. For example, "The pencil is longer than the eraser." Once done, they can get two more objects until they have compared at least 5 different sets of objects.
- 5) Ensure each student gets a turn to choose and compare two objects from the set.
- 6) After completing the comparisons, bring the class together to discuss their findings. Ask students to share which objects were the longest and shortest in their group.

Recording Sheet

Answer the questions below.

Fill in the blanks below

a) The _____ is longer than the _____.

b) The _____ is longer than the _____.

c) The _____ is longer than the _____.

d) The _____ is longer than the _____.

e) The _____ is longer than the _____.

f) The _____ is longer than the _____.

g) The _____ is longer than the _____.

h) The _____ is longer than the _____.

i) The _____ is longer than the _____.

PREVIEW

Estimating Lengths



Estimate Estimate the lengths of each object in the non-standard units below

Object	Unit 1 Fingertip	Unit 2 Paperclip	Unit 3 Pencil
1) The length of a pencil			
2) The width of your eye			
3) The height of a paper book			
5) The length of a pair of scissors			
5) The height of this page			
6) The length of a book			
7) The height of a glue stick			
8) The length of your foot			
9) The width of the door to your class			
10) The width of a whiteboard or chalkboard			

PREVIEW

Indigenous Methods For Measuring Length

Being able to measure lengths is very important. The Indigenous in Canada didn't use the metric system that we use today. Instead, they used their bodies to measure lengths.

Measuring was important when trading. A metre of cloth was not measured with a metre stick. Rather, the seller would extend their arm straight out in front of them. The distance from their nose to their fingers was considered a yard (close to a metre in the metric system).

To measure short distances, the Indigenous used one finger width, two finger widths, three finger widths, four finger widths, and palm width.

To measure longer distances, wingspan was used. Our wingspan is the length when our arms are out to our sides as far as possible. For even further distances, the Indigenous would use 'pacing.' This means they would count their steps. They might say the distance from their longhouse to a nearby river as being 100 paces (steps).



One Finger



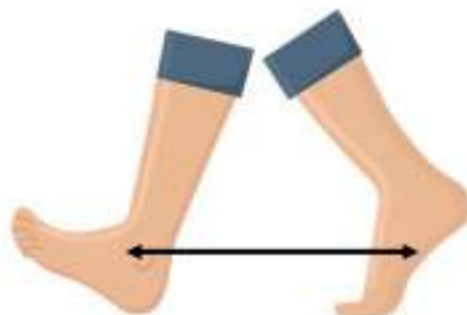
One Palm



One Span



One Great Span



One Pace



One Wingspan

Indigenous Methods For Measuring Length

Part 1

Measure the following using one finger

Objects to Measure	How Many Fingers
1) Length of your pencil	
2) Width of your wrist	
3) Width of a door in your class	
4) Length of your arm	

Part 2

Measure the following using palms

Objects to Measure	How Many Palms
1) Width of this page	
2) Height of this page	
3) Height of a water bottle	
4) Width of a computer screen	

Part 3

Measure the following using spans

Objects to Measure	How Many Spans
1) Height from the floor to your knee	
2) Length of one arm (from fingers to shoulder)	
3) Height of your book bag	
4) Length of a friend's leg	

Indigenous Methods For Measuring Length

Part 4

Measure the following using great spans



Objects to Measure	How Many Great Spans
1) Height from the floor to your knee	
2) Length of one arm (from fingers to shoulder)	
3) Height of a book bag	
4) Length of a foot	

Part 5

Measure the following using paces



Objects to Measure	How Many Paces
1) Width of your classroom	
2) Depth of your classroom	
3) Width of a hallway	
4) Length of a hallway	

Part 6

Measure the following using wingspans



Objects to Measure	How Many Wingspans
1) Width of your classroom	
2) Depth of your classroom	
3) Width of a hallway	
4) Length of a hallway	

Which Object Has More Mass?

Mass is the amount of matter in an object. Objects with more mass have more weight. But weight depends on where the object is, and mass is always the same.

Example - We weigh very little on the moon because gravity isn't as strong, but our mass is the same.

Question: Circle which object you think has more mass

1)



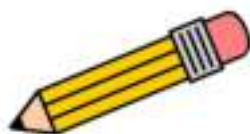
2)



VS



3)



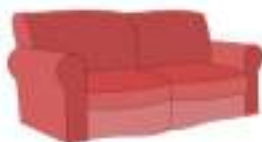
VS



VS



5)



VS



6)



VS



7)



VS



8)



VS



9)



VS



10)



VS



Comparing Mass – Heavy and Light

Questions


Circle whether the object is heaviest or lightest

1) The elephant is the _____.



Heaviest

Lightest

2) The  bat is the _____.



Heaviest

Lightest

3) The couch is _____.



Heaviest

Lightest

4) The cereal box is the _____.



Heaviest

Lightest

5) The chair is the _____.



Lightest

6) The deer is the _____.



Heaviest

Lightest

7) The pencil case is the _____.



Heaviest

Lightest

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

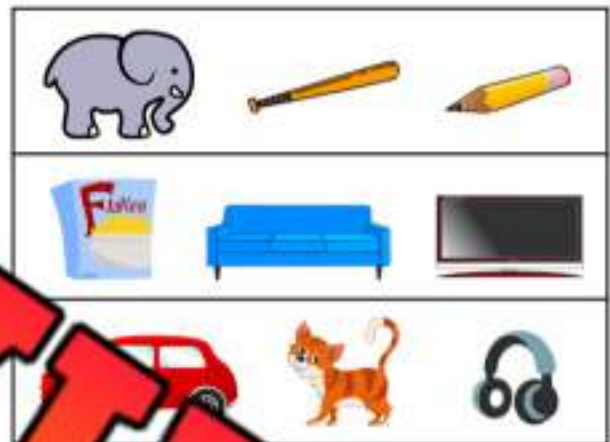
Name: _____

Put a square around the heaviest object and circle the lightest object.



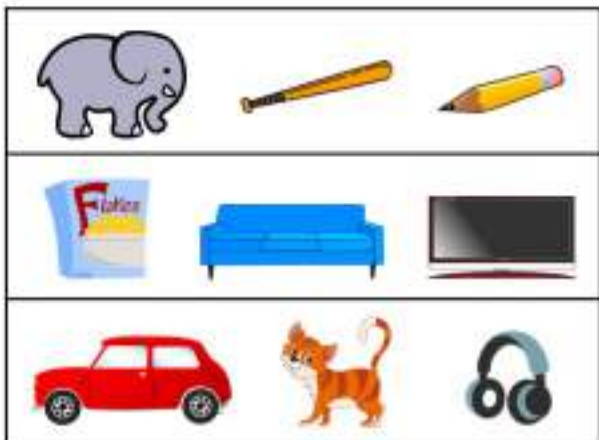
Name: _____

Put a square around the heaviest object and circle the lightest object.



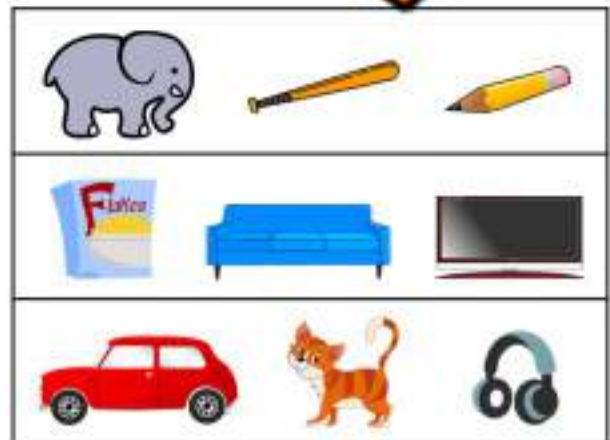
Name: _____

Put a square around the heaviest object and circle the lightest object.



Name: _____

Put a square around the heaviest object and circle the lightest object.



Comparing Mass – Heavy and Light**Questions**

Order the vehicles from heaviest (1) to lightest (3)

1)



2)



3)




4)



5)




Balancing Scales - Measuring Mass**Questions**How many  do the objects weigh?

1)

The banana weighs _____ .

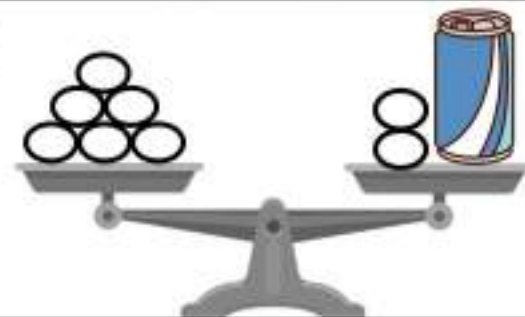
2)

The cake weighs _____ .


3)

The sandwich weighs _____ .

4)

The can weighs _____ .

5)

The bowl weighs _____ .

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

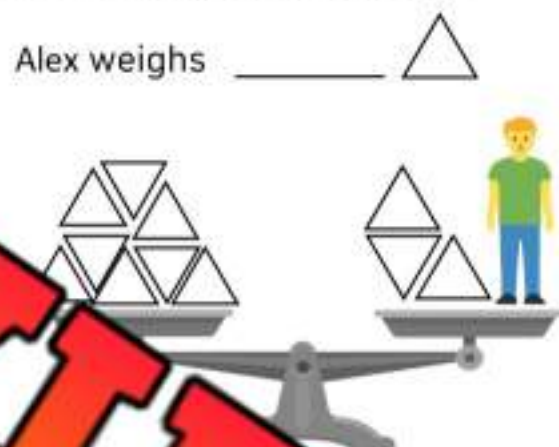
Name: _____

Here is Alex. How many triangles does Alex weigh? Write your answer in the space provided below.



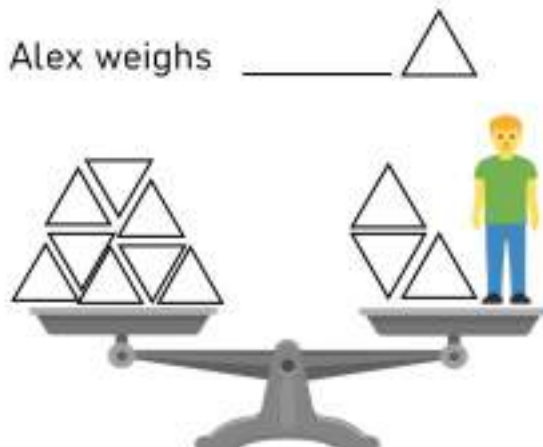
Name: _____

Here is Alex. How many triangles does Alex weigh? Write your answer in the space provided below.



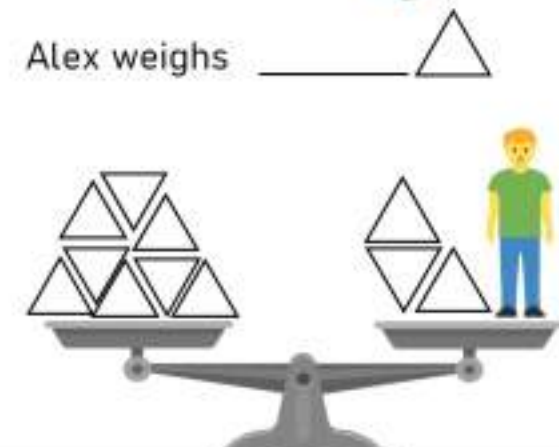
Name: _____

Here is Alex. How many triangles does Alex weigh? Write your answer in the space provided below.



Name: _____

Here is Alex. How many triangles does Alex weigh? Write your answer in the space provided below.



Activity: Mystery Mass Challenge

Objective

What are we learning about?

Students will learn about the concept of mass and develop estimation and reasoning skills through a fun and engaging mystery challenge.

Materials

What you will need for the activity.

- Several bags with letters (A, B, C, etc.) marked on them
- A variety of small items with different masses (e.g., marbles, small toys, paper clips)
- Paper and recording sheets
- Handouts with estimation and reasoning questions



Instructions

How you will complete the activity

- 1) Introduce the concept of mass and how we can use non-standard units to estimate and compare the weight of objects.
- 2) Show the students the individual items they will be using (e.g., a single marble, a single small toy, a paper clip) and let them hold each item to get a sense of its mass.
- 3) Prepare the mystery bags by placing one type of item in each bag (e.g., Bag A with marbles, Bag B with small toys, Bag C with paper clips). Ensure the students cannot see or feel the exact contents.
- 4) Pass Bag A to one side of the room. Instruct students to hold the bag by the top and gently feel the weight without squeezing or feeling for the contents. Each student should have a chance to hold Bag A. Have them record their guess on their recording sheet.
- 5) Collect Bag A and pass Bag B to a different side of the room, following the same process. Repeat the process with Bag C, asking students to estimate how many paper clips are inside and record their guesses.
- 6) Once all bags have been passed around and guesses recorded, reveal the contents of each bag one by one.
- 7) Discuss as a class how close their estimates were to the actual contents. Ask students to explain their reasoning behind their predictions.

Recording Sheet

Answer the questions below.

How many objects are in each of the bags below.

Bag	Estimate (Guess)	Actual Count (Fill in at the End)
Bag A		
Bag B		
Bag C		
Bag D		
Bag E		
Bag F		

PREVIEW**Reflection**

Answer the questions below.

How close were your estimates to the actual contents?

Were there any surprises? Did any objects have more/less mass than you thought?

Non-Standard Units - Mass

Any object can be used as a non-standard unit of measurement for mass. However, it is better to use common objects that most people know the mass of. Here are some objects you can try: paperclips, marbles, bricks.

Part 1 Order the object's mass from least (1) to greatest (3)

Paperclips	Bricks		Marbles	
------------	--------	--	---------	--

Part 2 Which would you use to measure the mass of the objects below?

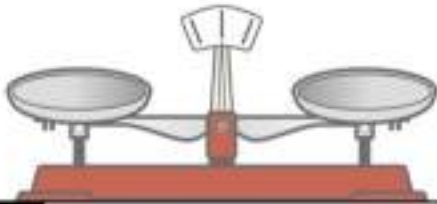
Objects - What You Are Measuring	Paperclip	Marble	Brick
1) Pencil	Paperclip	Marble	Brick
2) Ruler	Paperclip	Marble	Brick
3) Calculator	Paperclip	Marble	Brick
4) Chair	Paperclip	Marble	Brick
5) Apple	Paperclip	Marble	Brick
6) Glue stick	Paperclip	Marble	Brick
7) Empty pencil case	Paperclip	Marble	Brick
8) Desk	Paperclip	Marble	Brick
9) Water bottle	Paperclip	Marble	Brick
10) One paper	Paperclip	Marble	Brick

Non-Standard Units - Paperclips**Directions**

- 1) Estimate the mass in paperclips of each object.
- 2) Use a pan balance to measure the mass in paperclips of each object.

Object	Estimate - # of Paperclips	Mass - # of Paperclips
1) Pencil		
2) Ruler		
3) One paper folded in half		
4) Pencil Sharpener		
5) Scissors		
6) Glue stick		
7) USB flash drive		
8) Marker		



Non-Standard Units - Marbles**Directions**

- 1) Estimate the mass in marbles of each object.
- 2) Use a pan balance to measure the mass in marbles of each object.

	Estimate - # of Marbles	Mass - # of Marbles
1) Ruler		
2) Scissors		
3) Glue Bottle		
4) Stapler		
5) Empty Pencil Case		
6) Hole Puncher		
7) Glue Stick		
8) Book		

PREVIEW

Two-Pan Balance - Comparing Mass

A **two-pan balance** is a tool we can use to find the mass of different objects. When we use a two-pan balance, we can use multiple objects to equal the mass of one object on the other side.



3 books = 1 laptop



2 laptops = 1 brick



2 bricks = 1 TV

Questions

Use the information above to answer the questions



3 books = _____ laptops



6 books = _____ laptops



1 TV = _____ bricks



2 TVs = _____ bricks



6 bricks = _____ TVs



2 bricks = _____ laptops



3 laptops = _____ books



6 laptops = _____ bricks



9 books = _____ laptops



3 TVs = _____ bricks

Measuring Mass Activity

Background

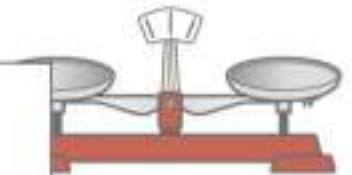
What is a pan balance?

We can use a pan balance to measure the mass of an object. A **pan balance** allows us to compare the mass of one object to the mass of another object. If we know the mass of the one object, we can find out the mass of the other object.

Materials

What do we need?

- Pan balance and/or regular pan balance
- 7 objects to measure
- Non-standard measurement (ex. blocks, coins, marbles)
- Recording sheet



Method

How do we do the experiment?

1. Write your estimates below (Rank from heaviest to lightest)
2. Use the pan balance to find out the mass of the objects
3. Record the mass of the objects below using non-standard units
4. Answer the questions

Observations

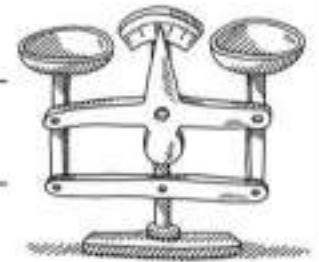
What happened?

Object	Estimate - Rank from Heaviest (1) to Lightest (7)	How many non-standard units

Mass Activity - Questions**Questions**

What did we learn?

1. What does mass mean?



2. Which of your estimates was correct? Which objects surprised you?

3. Which object had the most/least mass?

a) most mass = _____

b) least mass = _____

4. Which non-standard unit of measurement did you use?

5. What does it mean when we balance the pan scale?

6. Which 3 objects in your classroom have the most mass (not people)?

Measurement Unit Test

Part 1 Circle which non-standard unit you would use to measure for length

What You Are Measuring	Unit 1	Unit 2	Unit 3
1) The length of an orange	Paper Clip	Pencil	Wingspan
2) The width of a computer	Paper Clip	Pencil	Wingspan
3) The length of a bus	Paper Clip	Pencil	Wingspan

Part 2 Follow the instructions below

1) Colour the longest arrow



2) Colour the shortest arrow



Part 3 Use your fingertip to measure the lines below

1) 
_____ fingertips

2) 
_____ fingertips

3) 
_____ fingertips

Part 4 Draw a line that is the correct length

1) _____
5 fingertips

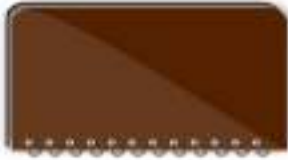
2) _____
3 fingertips

3) _____
4 fingertips

Part 5

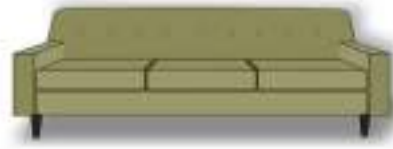
Measure the objects below using your fingertip

1)



Approximately _____ fingertips

2)



Approximately _____ fingertips

3)



Approximately _____ fingertips

4)



Approximately _____ fingertips

Part 6

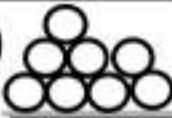
How many of these objects weigh?

1)



The marble weighs _____ ○.

2)



8



The sandwich weighs _____ ○.

3)



8



The burger weighs _____ ○.

Part 7

Which non-standard unit would you use to measure the mass?

Objects - What You Are Measuring	Paperclip	Marble	Brick
1) Desk	Paperclip	Marble	Brick
2) Pencil Case	Paperclip	Marble	Brick
3) Small Eraser	Paperclip	Marble	Brick

Name: _____

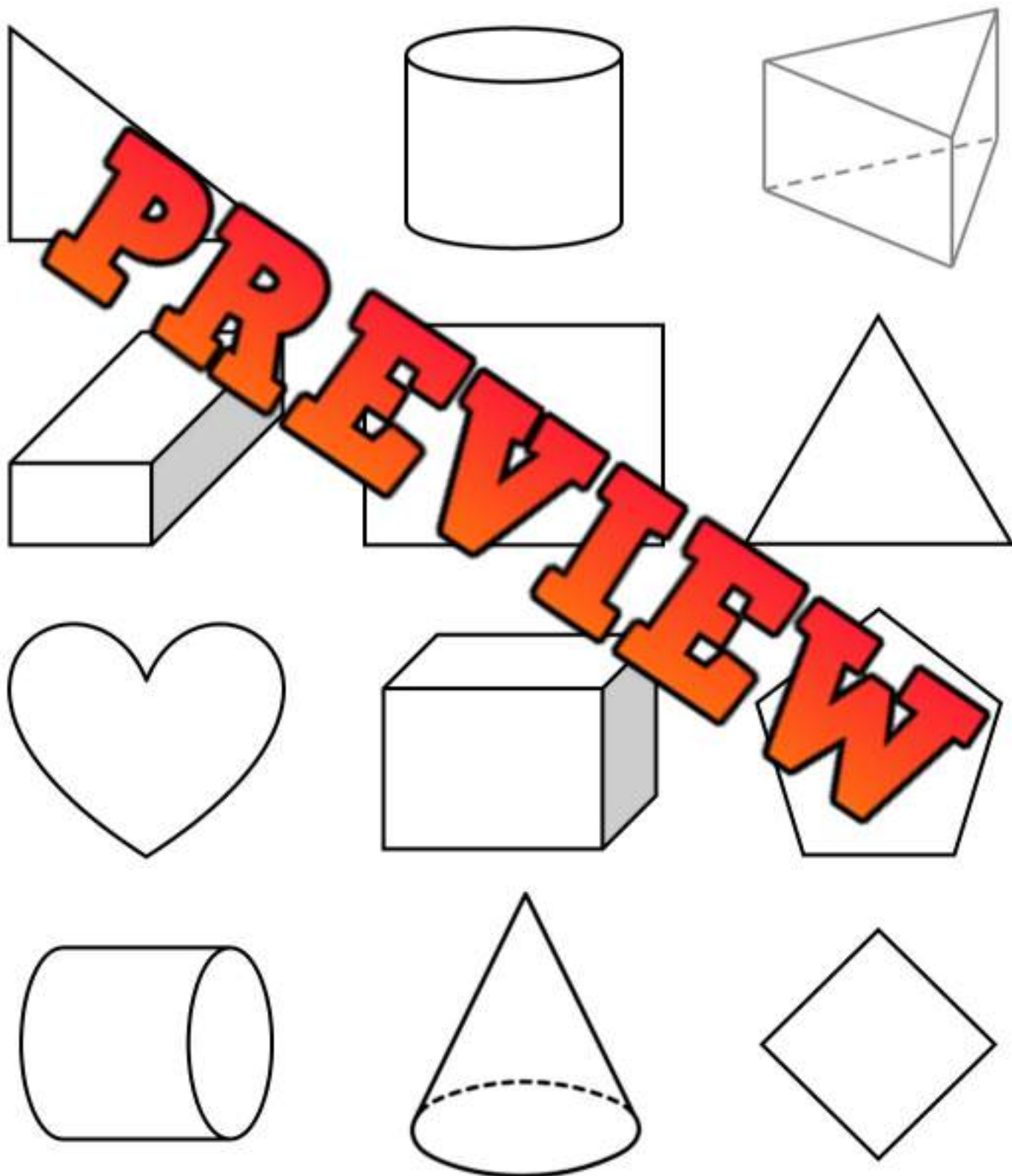
49

Curriculum Connection
SS2-5

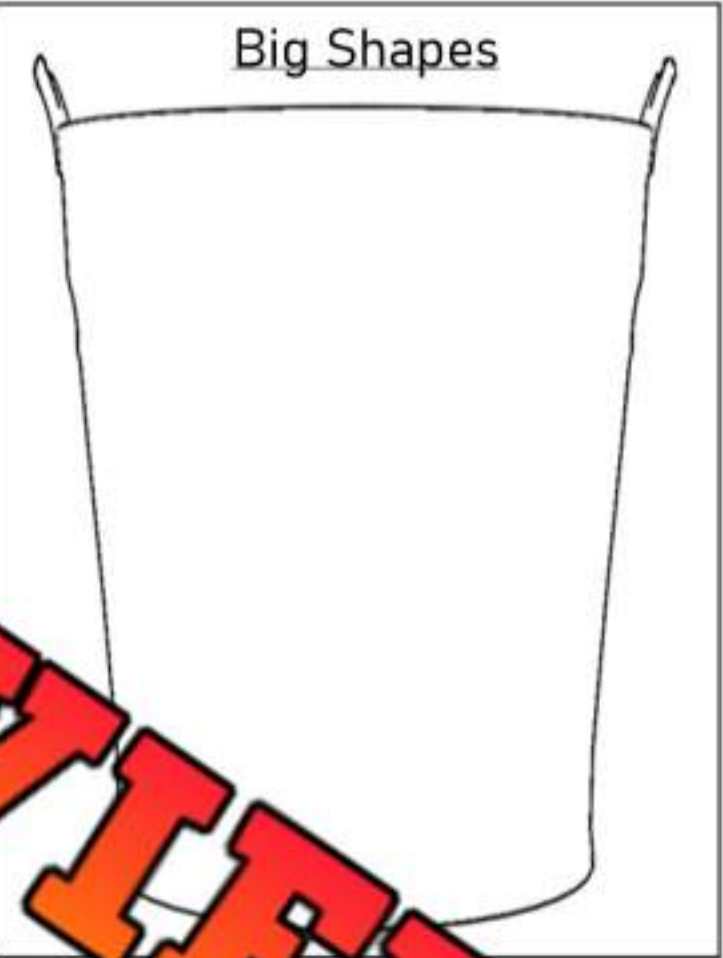
2D vs 3D Shapes

Questions

Colour the 2D shapes blue and the 3D shapes green

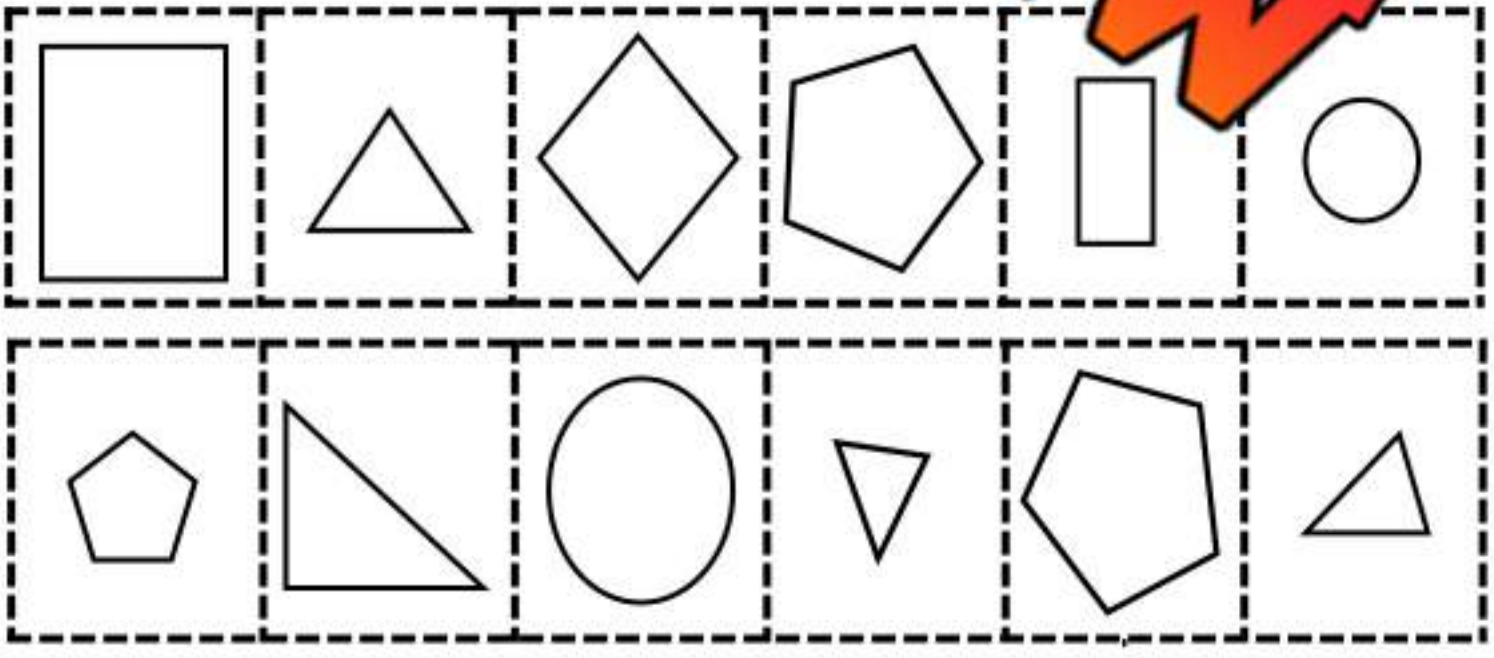


Comparing 2D Shapes - Size



PREVIEW

Directions Cut the shapes out and paste them in the correct bucket.



Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Is the shape 2D or 3D?

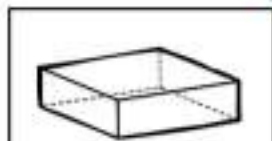


2D

3D

2D

3D



2D

3D

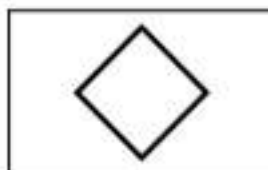


2D

3D

Name: _____

Is the shape 2D or 3D?



2D

3D



2D

3D



2D

3D

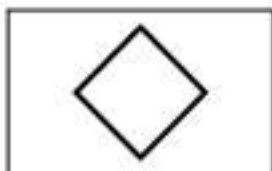


2D

3D

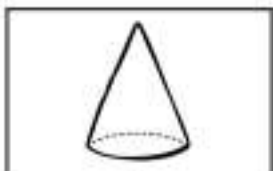
Name: _____

Is the shape 2D or 3D?



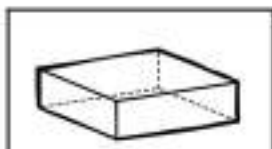
2D

3D



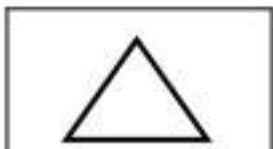
2D

3D



2D

3D

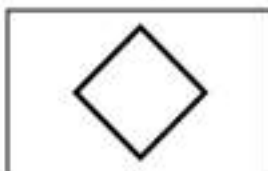


2D

3D

Name: _____

Is the shape 2D or 3D?



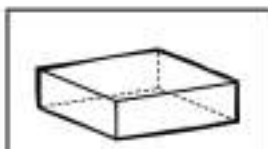
2D

3D



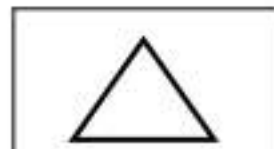
2D

3D



2D

3D





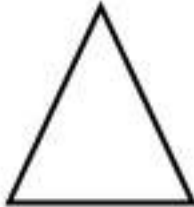



2D

3D

Sorting 2D vs 3D Shapes**Questions**

Sort the shapes into the correct categories by writing their letters below

					
		C	D	E	F

					
G	H	I	J	K	L

2-Dimensional**3-Dimensional**

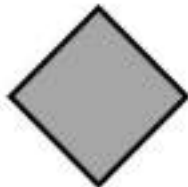
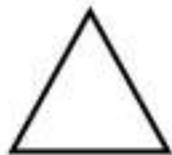
Sorting 2-D Shapes Using Two Attributes

Questions

Sort the shapes into the correct categories using the two attributes

4 or More Sides and Grey**3 or Less Sides and White**

PREVIEW



A

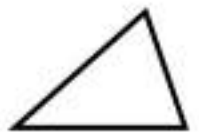
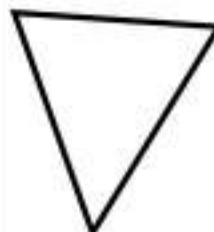
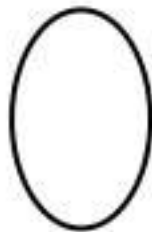
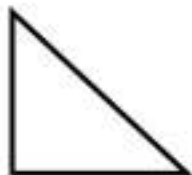
B

C

D

E

F



G

H

I

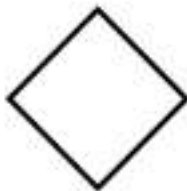
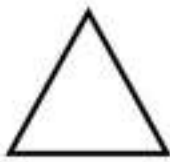
J

K

L

Sorting 2-D Shapes Using Two Attributes**Questions**

Sort the shapes into the correct categories using the two attributes

4 or More Sides and Grey**3 or Less Sides and White****4 or More Sides and White****3 or Less Sides and Grey**

A

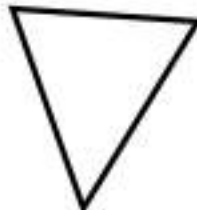
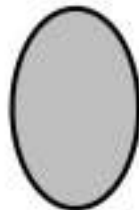
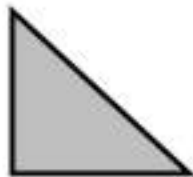
B

C

D

E

F



G

H

I

J

K

L

Exit Cards

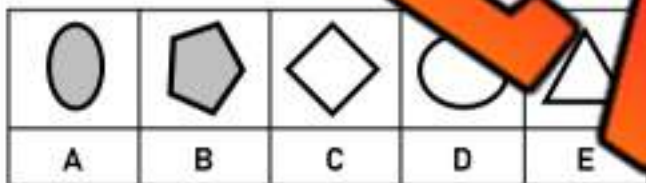
Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Sort the shapes into the correct categories using the two attributes

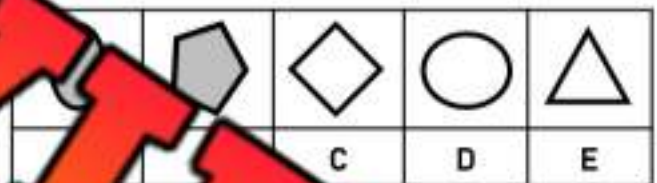
<u>4 or More Sides and Grey</u>	<u>3 or Less Sides and White</u>
<u>4 or More Sides and White</u>	<u>3 or Less Sides and Grey</u>



Name: _____

Sort the shapes into the correct categories using the two attributes

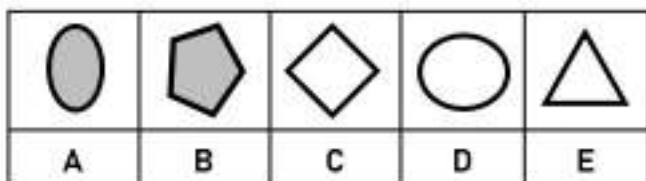
<u>4 or More Sides and Grey</u>	<u>3 or Less Sides and White</u>
<u>4 or More Sides and White</u>	<u>3 or Less Sides and Grey</u>



Name: _____

Sort the shapes into the correct categories using the two attributes

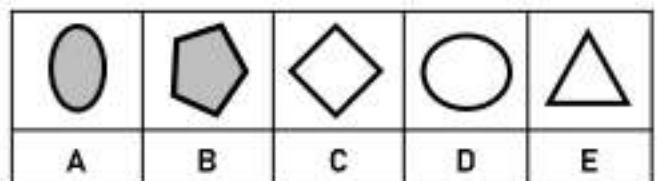
<u>4 or More Sides and Grey</u>	<u>3 or Less Sides and White</u>
<u>4 or More Sides and White</u>	<u>3 or Less Sides and Grey</u>



Name: _____

Sort the shapes into the correct categories using the two attributes

<u>4 or More Sides and Grey</u>	<u>3 or Less Sides and White</u>
<u>4 or More Sides and White</u>	<u>3 or Less Sides and Grey</u>









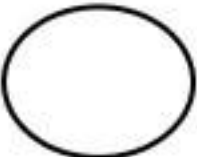
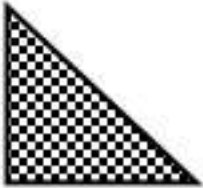




Sorting 2-D Shapes Using Two Attributes

Questions

Sort the shapes into the correct categories using the two attributes

Round with Pattern	Not Round with No Pattern
Round with No Pattern	Not Round with Pattern

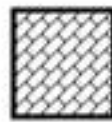
					
A	B	C	D	E	F

					
G	H	I	J	K	L

Sorting 2-D Shapes Using Two Attributes



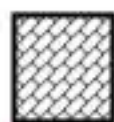
Diagonal Lines and 3 Sides



Brick Pattern and 4 Sides



Diagonal Lines and 4 Sides



Brick Pattern and 3 Sides

PREVIEW

Directions

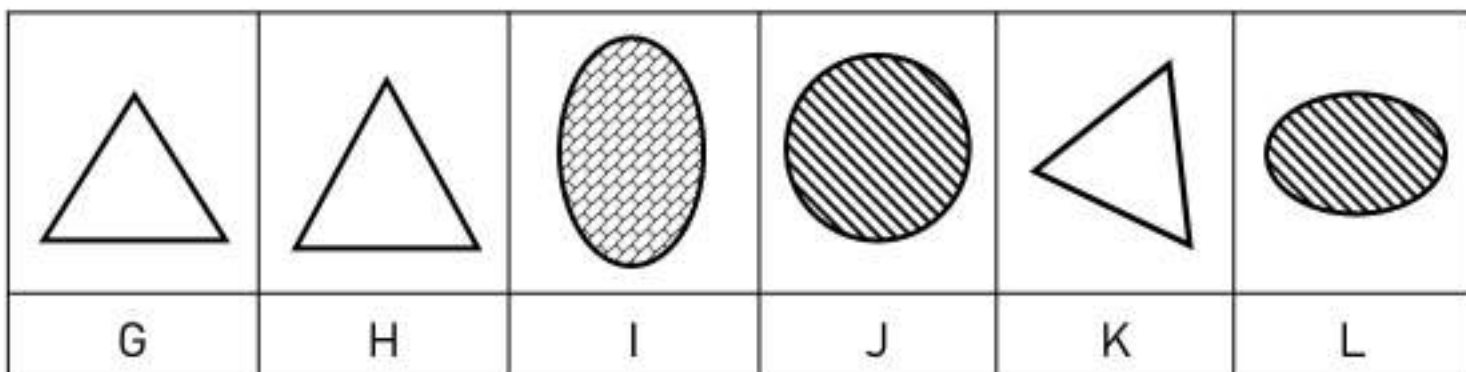
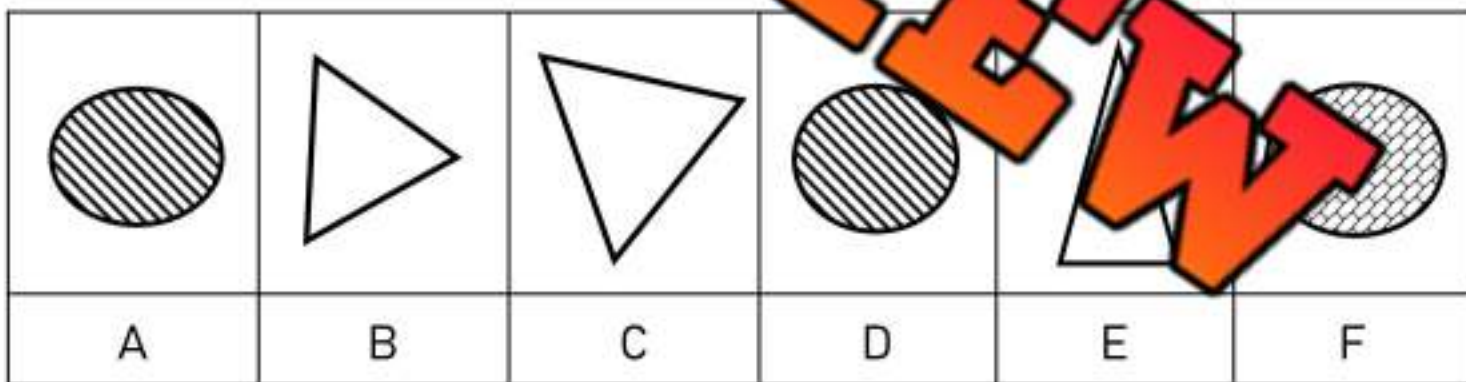
Cut the shapes out and paste them in the correct box.

Sorting 2-D Shapes Using Two Attributes**Questions**

Choose 2 sorting rules to sort the shapes below

Sorting Rules Options - Choose 2 that will work
Pattern, No Pattern, Colour, Number of Sides, Round, Not Round, Size, Thickness

_____	_____
-------	-------

PREVIEW

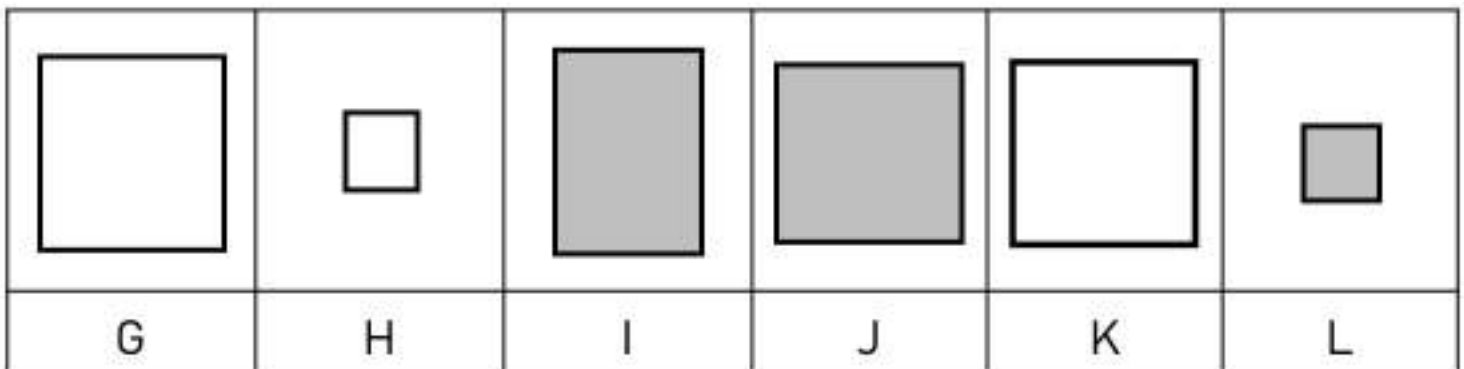
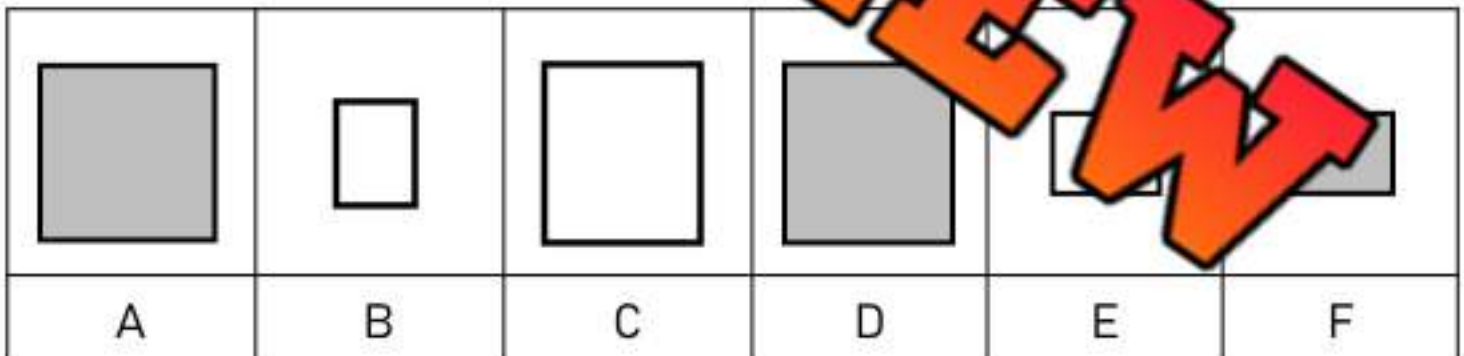
Sorting 2-D Shapes Using Two Attributes**Questions**

Choose 2 sorting rules to sort the shapes below

Sorting Rules Options – Choose 2 that will work

Pattern, No Pattern, Colour, Number of Sides, Round, Not Round, Size, Thickness

<hr/>	<hr/>
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Sorting 2-D Shapes Using Two Attributes**Questions**

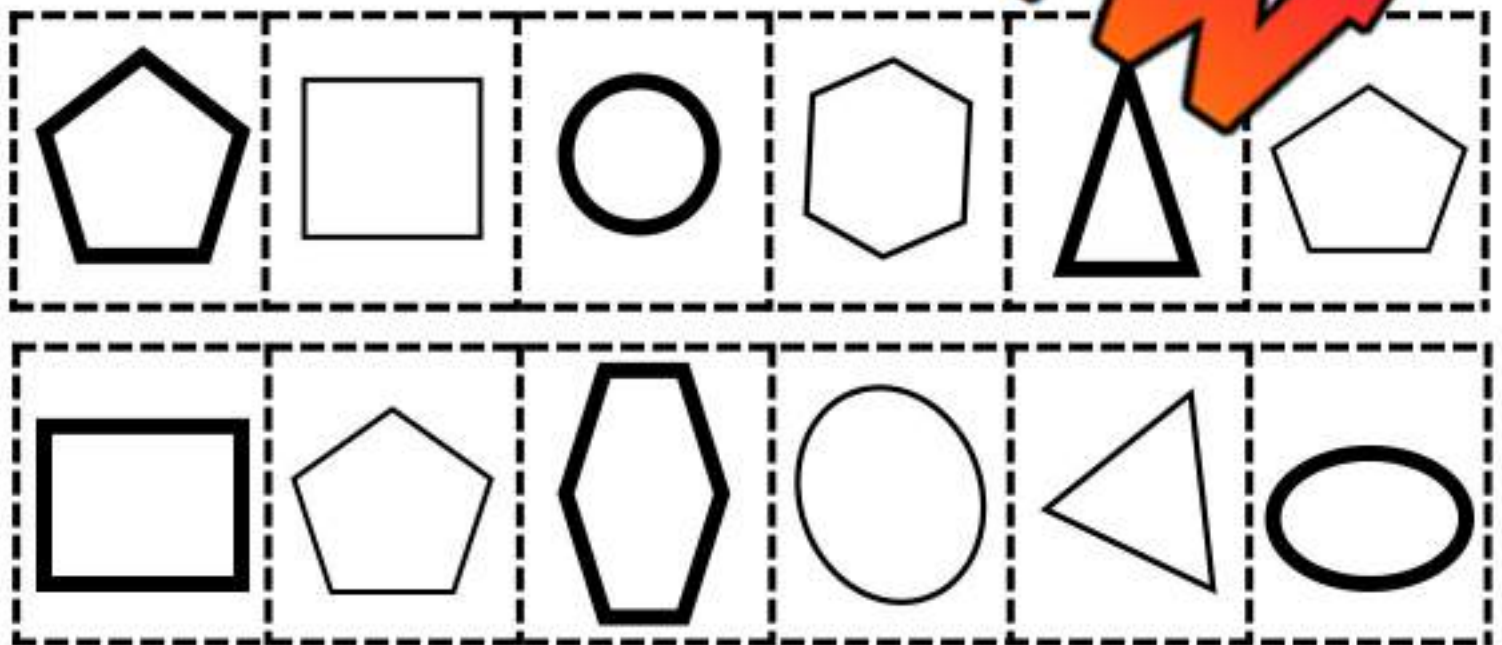
Choose 2 sorting rules to sort the shapes below

Sorting Rules Options – Choose 2 that will work
Pattern, No Pattern, Colour, Number of Sides, Round, Not Round, Size, Thickness

--	--

PREVIEW**Directions**

Cut the shapes out and paste them in the correct boxes



Sorting 3-D Shapes Using Two Attributes

Shaded In And Meets At A Point

White And Doesn't Meet At A Point

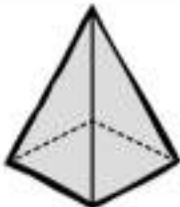
PREVIEW

Questions

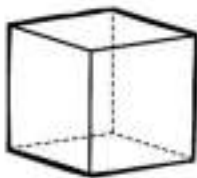
Write the letter below each shape in the correct category



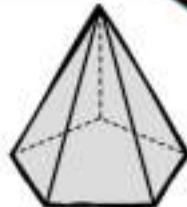
A



B



C

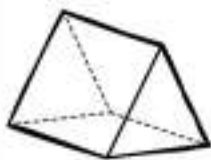


D

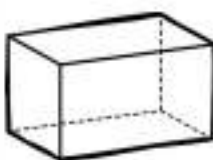


E

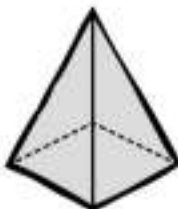
F



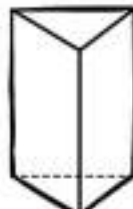
G



H



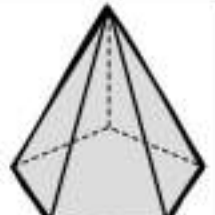
I



J



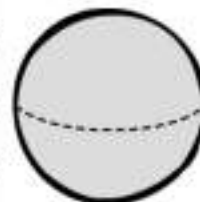
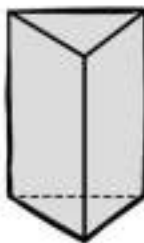
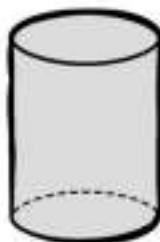
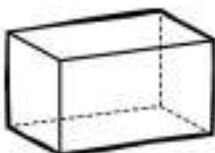
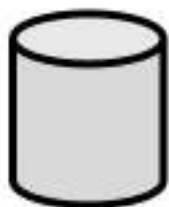
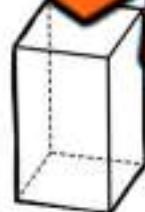
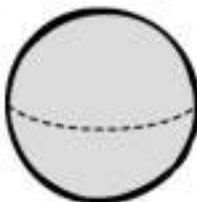
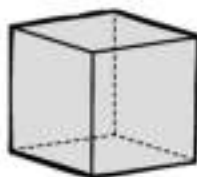
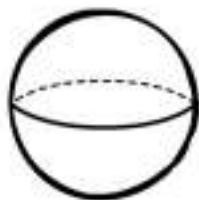
K



L

Sorting 3-D Shapes Using Two Attributes**Round and Shaded In****Not Round and White****Round and White****Not Round and Shaded In****Directions**

Cut the shapes out and paste them in the correct box.



Exit Cards

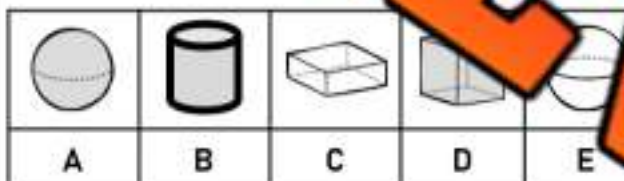
Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Sort the objects into the correct categories using the two attributes

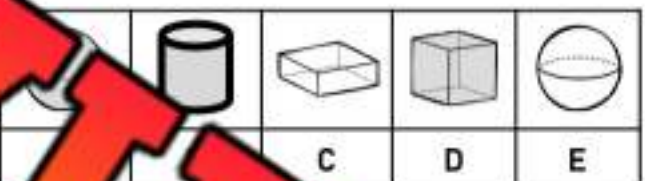
<u>Round and Shaded In</u>	<u>Not Round and White</u>
<u>Round and White</u>	<u>Not Round and Shaded In</u>



Name: _____

Sort the objects into the correct categories using the two attributes

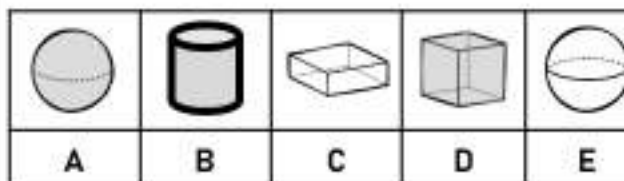
<u>Round and Shaded In</u>	<u>Not Round and White</u>
<u>Round and White</u>	<u>Not Round and Shaded In</u>



Name: _____

Sort the objects into the correct categories using the two attributes

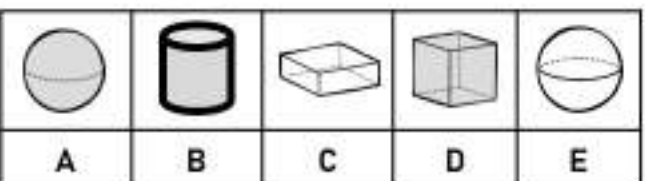
<u>Round and Shaded In</u>	<u>Not Round and White</u>
<u>Round and White</u>	<u>Not Round and Shaded In</u>



Name: _____

Sort the objects into the correct categories using the two attributes

<u>Round and Shaded In</u>	<u>Not Round and White</u>
<u>Round and White</u>	<u>Not Round and Shaded In</u>



Activity Title: Geometric Builders

Objective

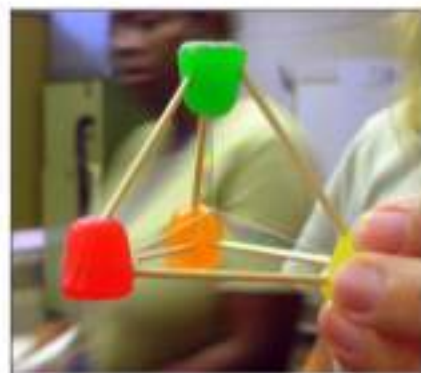
What are we learning about?

To help students understand the structure and properties of different 3D geometric shapes by creating them using toothpicks and marshmallows.

Materials

What you will need for the activity.

- Toothpicks
- Marshmallows (coloured)
- Worksheet with diagrams of 3D shapes
- Coloured markers
- Paper for sketching.



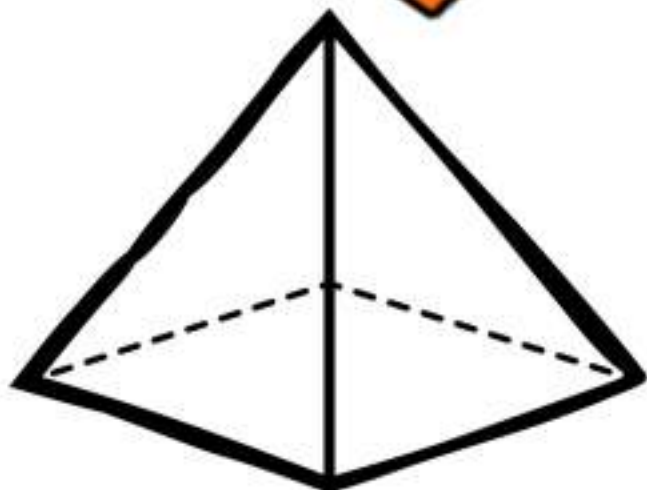
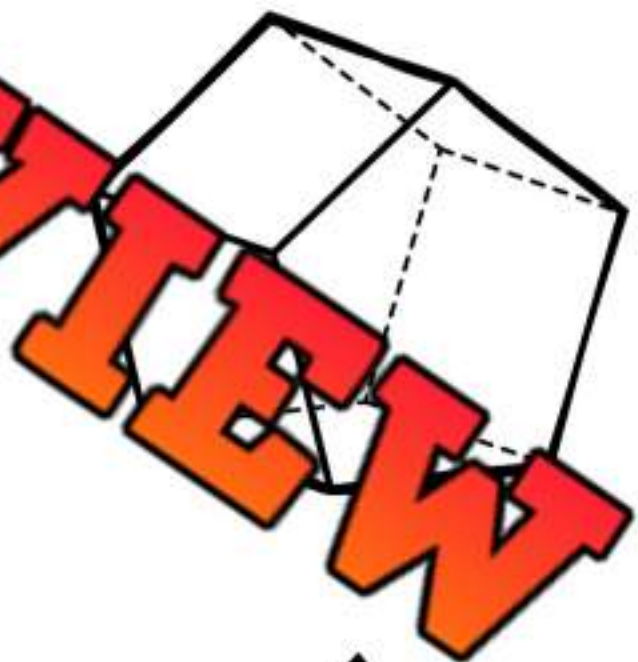
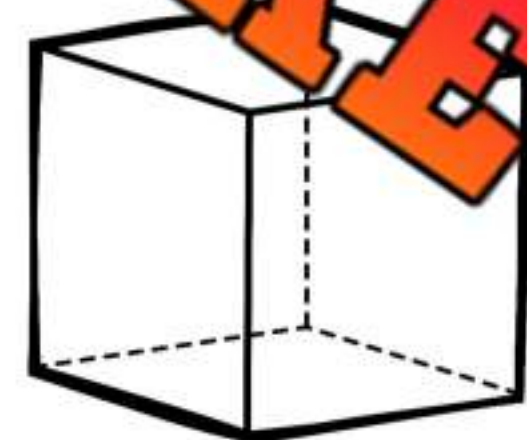
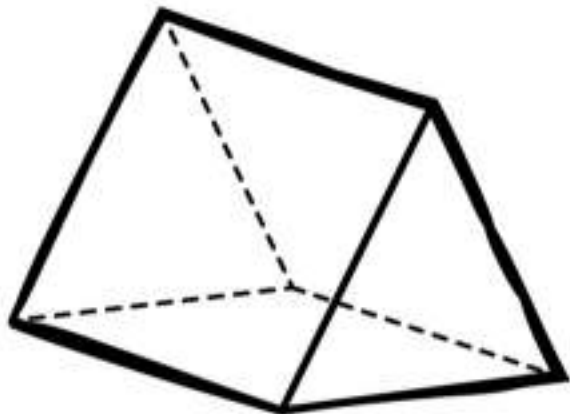
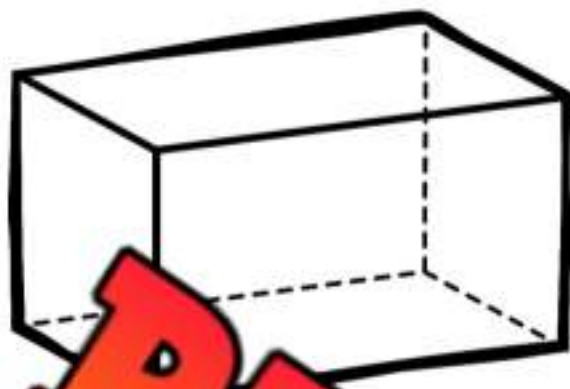
Instructions

How you will complete the activity.

- 1) Explain the basic elements of 3D shapes: edges, vertices, and faces.
- 2) Show the students examples of 3D shapes like cubes, pyramids, and cones on the worksheet.
- 3) Distribute toothpicks and marshmallows to the students.
- 4) Guide the students to connect the toothpicks with marshmallows to form vertices and edges of the shapes illustrated on their worksheets.
- 5) Encourage them to use the coloured markers to color the marshmallows according to the number of edges each vertex joins (e.g., blue for 3 edges, red for 4 edges).
- 6) Allow students to experiment with creating their own 3D shapes once they have completed the examples.
- 7) Assist the students in comparing their shapes with the diagrams to check for accuracy.

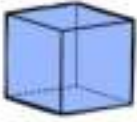
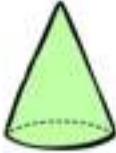

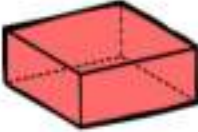

Examples

Make the 3D objects below



PREVIEW

3D Shapes – Colouring Activity

				
Blue	Green	Orange	Red	Purple
Cube	Cone	Sphere	Rectangular Prism	Cylinder

Questions Colour each picture the correct colour

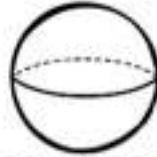
			
			
			
			

3D Shapes in the Real World**Questions**

Cut and paste the 3D objects with their match

Rectangular
Prism

Sphere



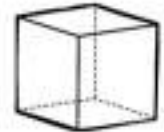
Cone

Triangular
Prism

Cylinder



Cube

**PREVIEW**

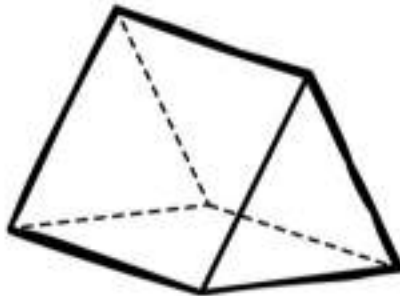
3D Objects - Number of Faces**Questions**

Colour the box with the correct number of faces



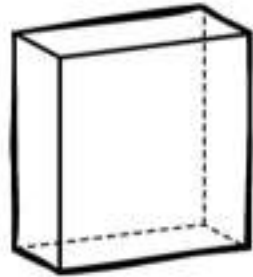
3

5



5

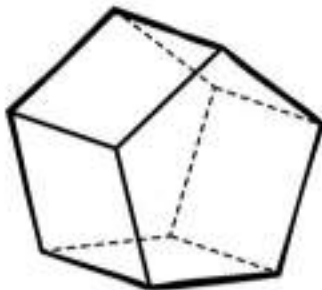
6



3

5

6



4

7

9



4

6

8



3

5

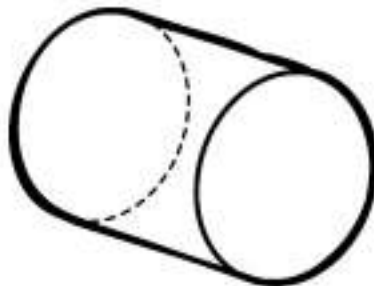
6



2

3

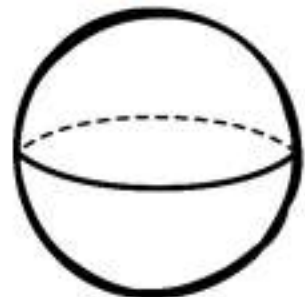
4



1

2

3



0

1

2

Exit Cards

Cut Out

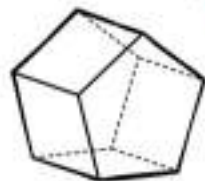
Cut out the exit cards below and have students complete them at the end of class

Name: _____

Colour the box with the correct number of faces



3	5	6
---	---	---



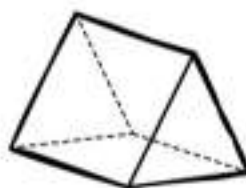
4	7	9
---	---	---



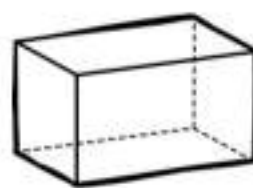
0	1	2
---	---	---

Name: _____

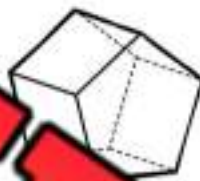
Colour the box with the correct number of faces



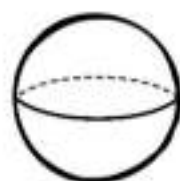
3	5	6
---	---	---



3	5	6
---	---	---



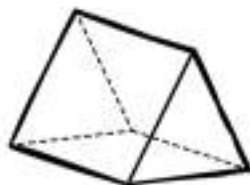
4	7	9
---	---	---



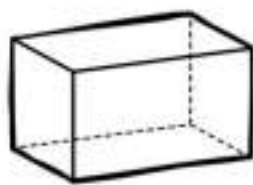
0	1	2
---	---	---

Name: _____

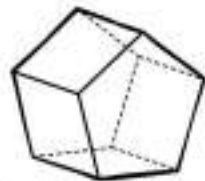
Colour the box with the correct number of faces



3	5	6
---	---	---



3	5	6
---	---	---



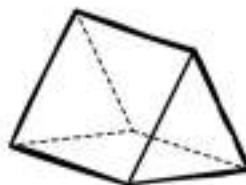
4	7	9
---	---	---



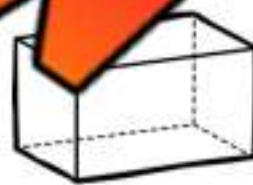
0	1	2
---	---	---

Name: _____

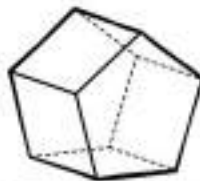
Colour the box with the correct number of faces



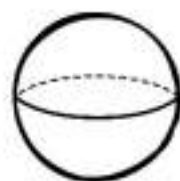
3	5	6
---	---	---



3	5	6
---	---	---



4	7	9
---	---	---



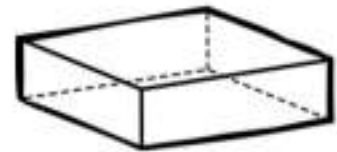
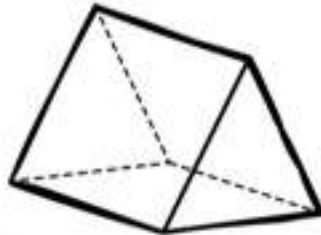
0	1	2
---	---	---

Prisms – Faces, Edges, Vertices

Questions

Fill in the tables below based on the prisms

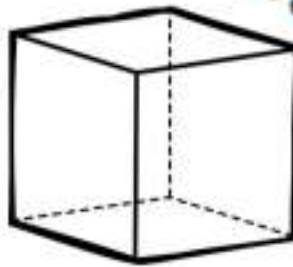
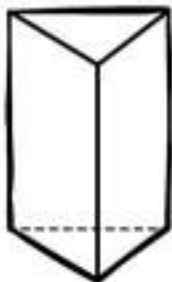
Word Bank – Triangular Prism, Rectangular Prism, Cube



Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	



Faces	
Edges	
Vertices	
Name	

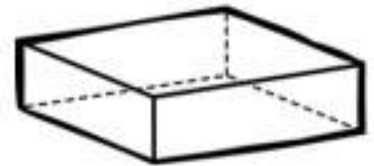
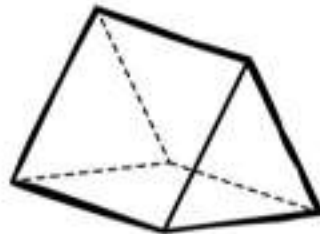
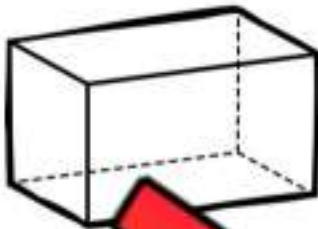
Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	

Naming Prisms

Questions

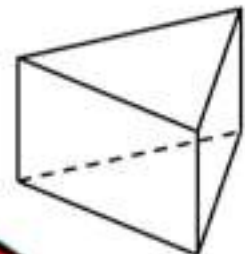
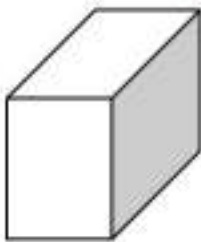
Circle the name of the prism



Rect
Tri
Cube

Rectangular Prism
Triangular Prism
Cube

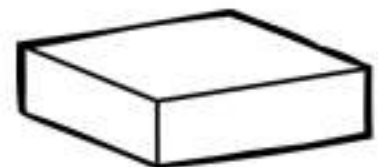
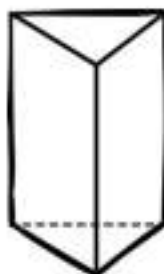
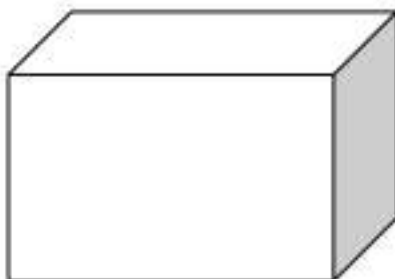
Rectangular Prism
Triangular Prism
Cube



Rectangular Prism
Triangular Prism
Cube

Rectangular Prism
Triangular Prism
Cube

Rectangular Prism
Triangular Prism
Cube



Rectangular Prism
Triangular Prism
Cube

Rectangular Prism
Triangular Prism
Cube

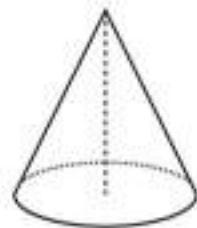
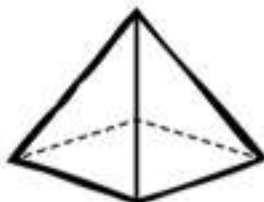
Rectangular Prism
Triangular Prism
Cube

PREVIEW

Naming Pyramids

Questions

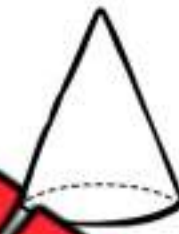
Write the name of the pyramids below

Word Bank – Triangular Pyramid, Rectangular Pyramid, Square Pyramid, Cone


Name	
# of sides on the base	

Name	
# of sides on the base	

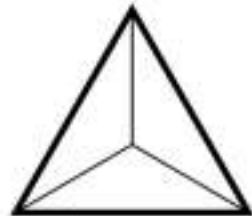
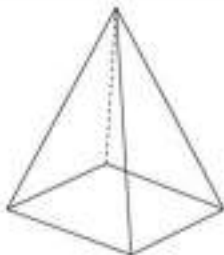
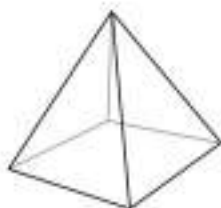
Name	
# of sides on the base	



Name	
# of sides on the base	

Name	
# of sides on the base	

Name	
# of sides on the base	



Name	
# of sides on the base	

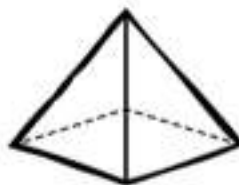
Name	
# of sides on the base	

Name	
# of sides on the base	

Naming Pyramids

Questions

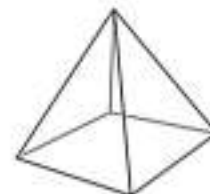
Circle the name of the pyramid



Square-Based Pyramid
 Triangular-Based Pyramid
 Rectangular-Based Pyramid
 Cone

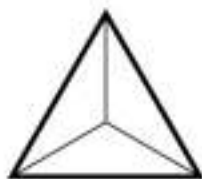
Square-Based Pyramid
 Triangular-Based Pyramid
 Rectangular-Based Pyramid
 Cone

Square-Based Pyramid
 Triangular-Based Pyramid
 Rectangular-Based Pyramid
 Cone



Square-Based Pyramid
 Triangular-Based Pyramid
 Rectangular-Based Pyramid
 Cone

Square-Based Pyramid
 Triangular-Based Pyramid
 Rectangular-Based Pyramid
 Cone



Square-Based Pyramid
 Triangular-Based Pyramid
 Rectangular-Based Pyramid
 Cone

Square-Based Pyramid
 Triangular-Based Pyramid
 Rectangular-Based Pyramid
 Cone

Square-Based Pyramid
 Triangular-Based Pyramid
 Rectangular-Based Pyramid
 Cone

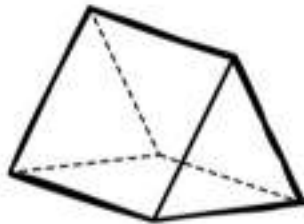
Prism or Pyramid

Questions

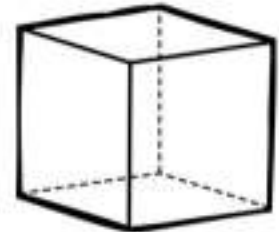
Is the shape a prism or pyramid?



Prism Pyramid



Prism Pyramid



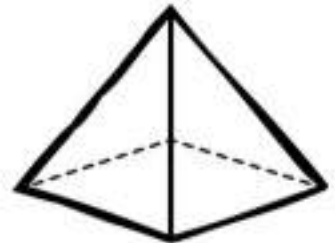
Prism Pyramid



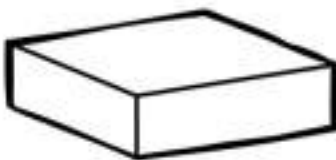
Prism Pyramid



Prism Pyramid



Prism Pyramid



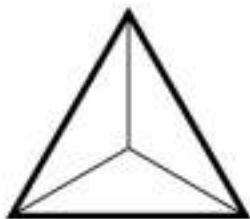
Prism Pyramid



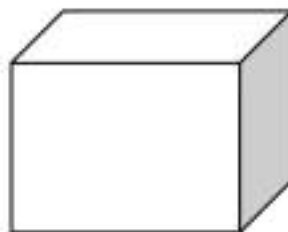
Prism Pyramid



Prism Pyramid



Prism Pyramid



Prism Pyramid



Prism Pyramid

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Is the object a prism or pyramid?



Prism Pyramid Prism Pyramid



Prism Pyramid



Prism Pyramid

Name: _____

Is the object a prism or pyramid?



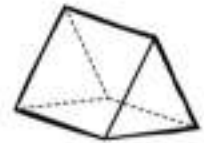
Prism Pyramid



Prism Pyramid



Prism Pyramid



Prism Pyramid

Name: _____

Is the object a prism or pyramid?



Prism Pyramid



Prism Pyramid



Prism Pyramid



Prism Pyramid

Name: _____

Is the object a prism or pyramid?



Prism Pyramid



Prism Pyramid



Prism Pyramid



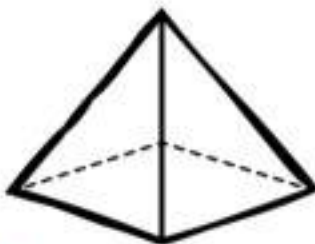
Prism Pyramid

Pyramids – Faces, Edges, Vertices

Questions

Fill in the tables below based on the pyramids

Word Bank – Triangular Pyramid, Rectangular Pyramid, Square Pyramid, Cone



Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	

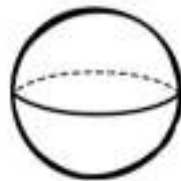


Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	

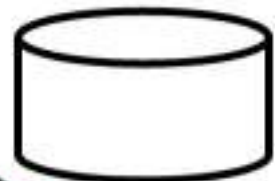
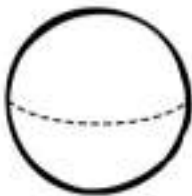
Naming 3D Shapes

QuestionsWrite the names of the 3D shapes below: Cone, Sphere, or Cylinder

Name	
# of faces	

Name	
# of faces	

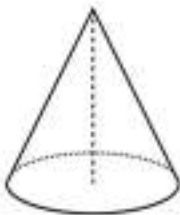
Name	
# of faces	



Name	
# of faces	

Name	
# of faces	

Name	
# of faces	



Name	
# of faces	

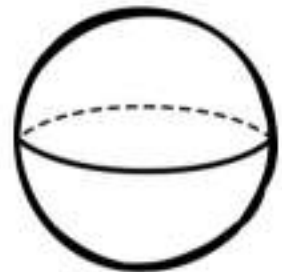
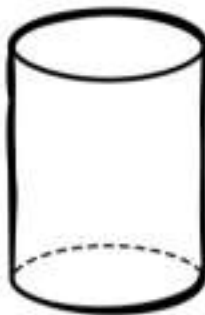
Name	
# of faces	

Name	
# of faces	

Cone, Cylinder or Sphere

Questions

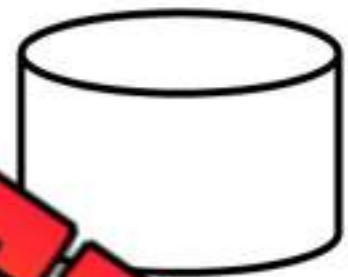
Is the 3D object a cone, cylinder, or sphere?



Cone Cylinder Sphere

Cylinder Sphere

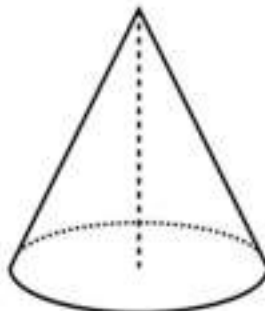
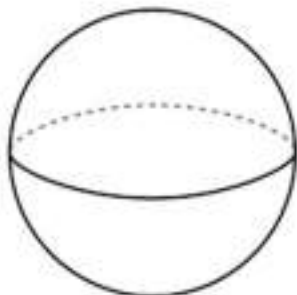
Cone Cylinder Sphere



Cone Cylinder Sphere

Cone Cylinder Sphere

Cone Cylinder Sphere



Cone Cylinder Sphere

Cone Cylinder Sphere

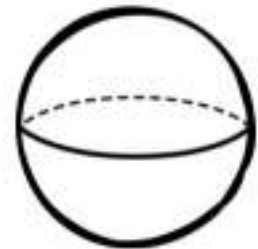
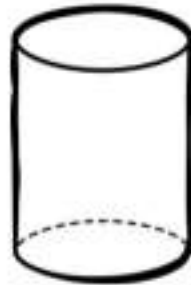
Cone Cylinder Sphere

PREVIEW

3D Shape – Faces, Edges, Vertices

Questions

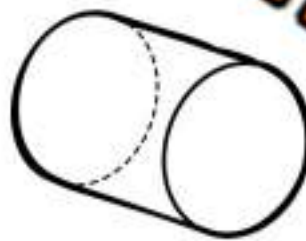
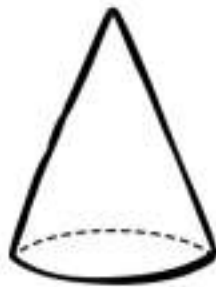
Fill in the tables below



Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	



Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	

Faces	
Edges	
Vertices	
Name	

Activity: Exploring Nets of 3D Objects

Objective

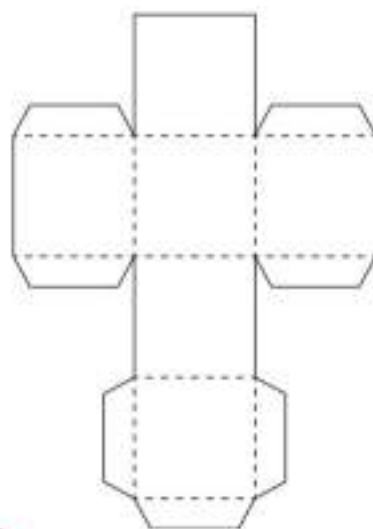
What are we learning about?

Students will learn about the nets of 3D objects and investigate the properties of pyramids, cones, cylinders, and prisms by constructing these shapes from given nets. They will count and record the number of faces, edges, and vertices of each shape.

Materials

What you will need for the activity.

- Pre-printed nets of pyramids, cones, cylinders, and prisms (one set per student)
- Scissors
- Glue or tape
- Paper and pen
- Handouts with table for recording number of faces, edges, and vertices for each shape



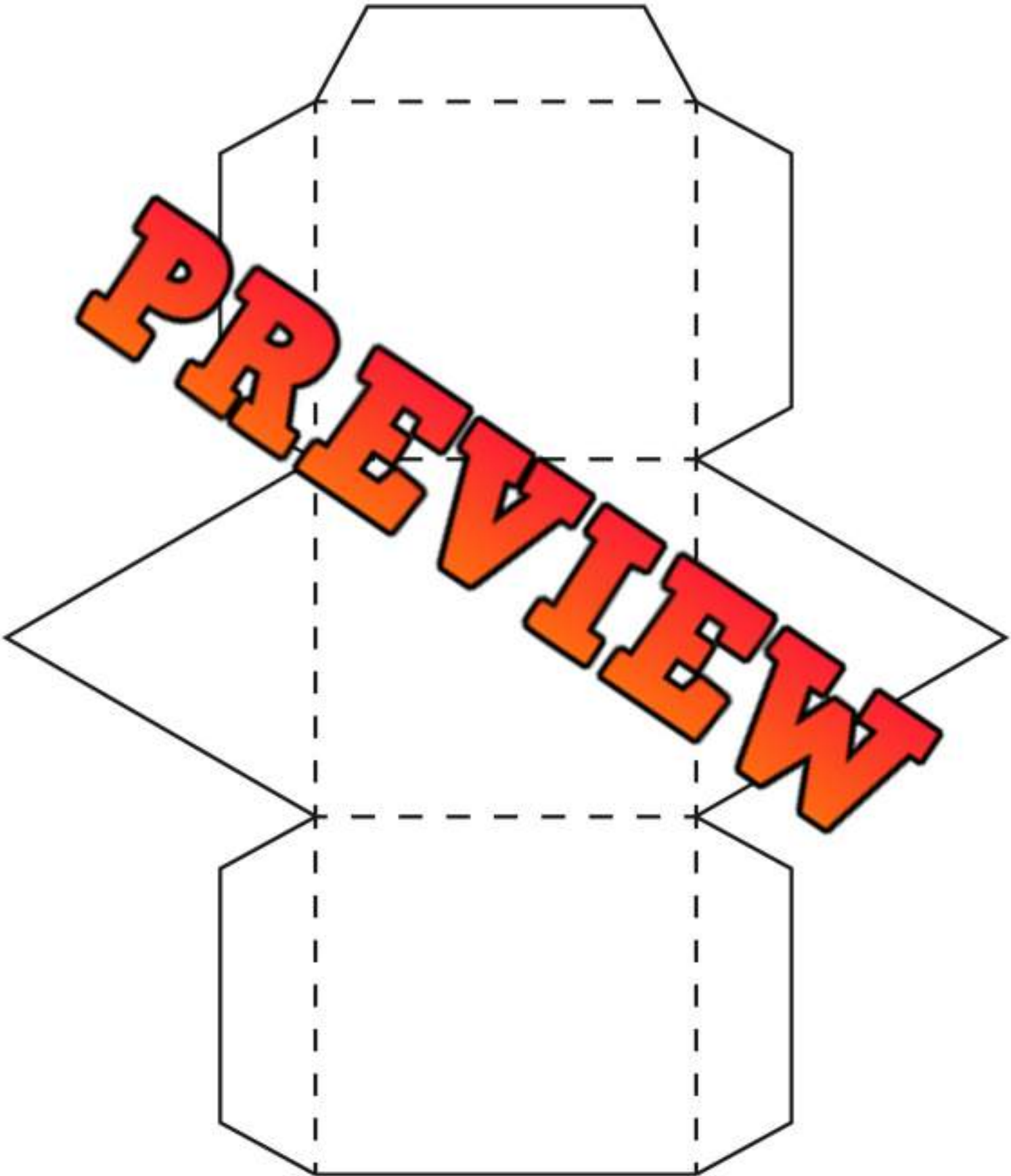
Instructions

How you will complete the activity.

- 1) Introduce the concept of nets and how they can be folded to form 3D shapes. Explain that a net is a two-dimensional shape that can be folded to form a three-dimensional object.
- 2) Distribute the pre-printed nets of pyramids, cones, cylinders, and prisms to each student, along with scissors, glue or tape, and the handout for recording observations.
- 3) Show an example of how to cut out and fold a net to create a 3D shape. Demonstrate where to cut and how to fold along the lines, using glue or tape to secure the edges.
- 4) Ask students to start with one net, cut it out, and carefully fold it to create the corresponding 3D shape. Ensure they follow the lines and use glue or tape to hold the shape together.
- 5) Once they have constructed the shape, instruct them to count and record the number of faces, edges, and vertices on the provided handout.
- 6) Repeat the process with the remaining nets, constructing the pyramid, cone, cylinder, and prism one by one.
- 7) After constructing all shapes, have a class discussion about their observations. Compare the number of faces, edges, and vertices of each shape and discuss any patterns or differences they noticed.

Name: _____

Triangular Prism

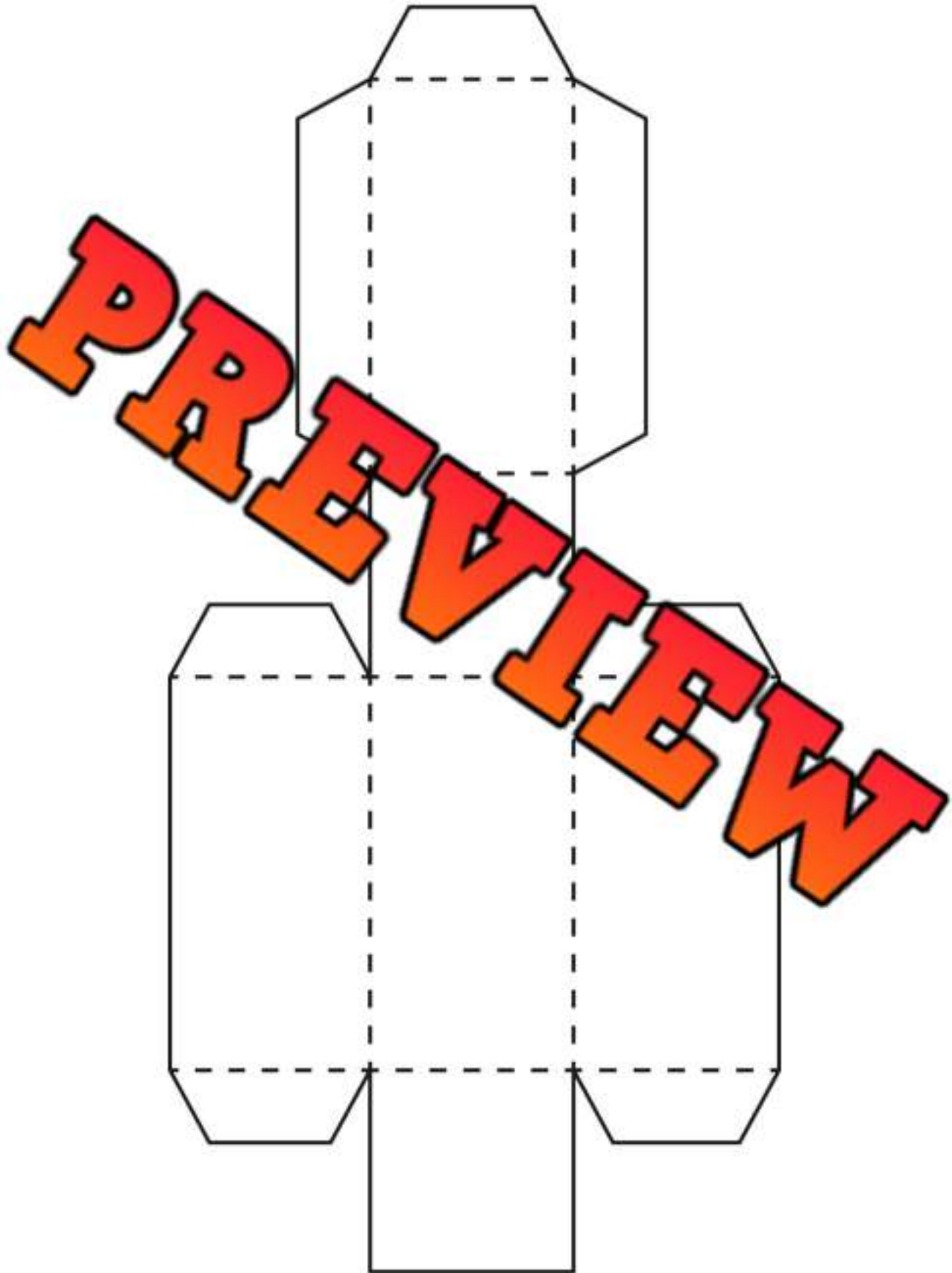


Name: _____

89

Curriculum Connection
SS2.1

Rectangular Prism

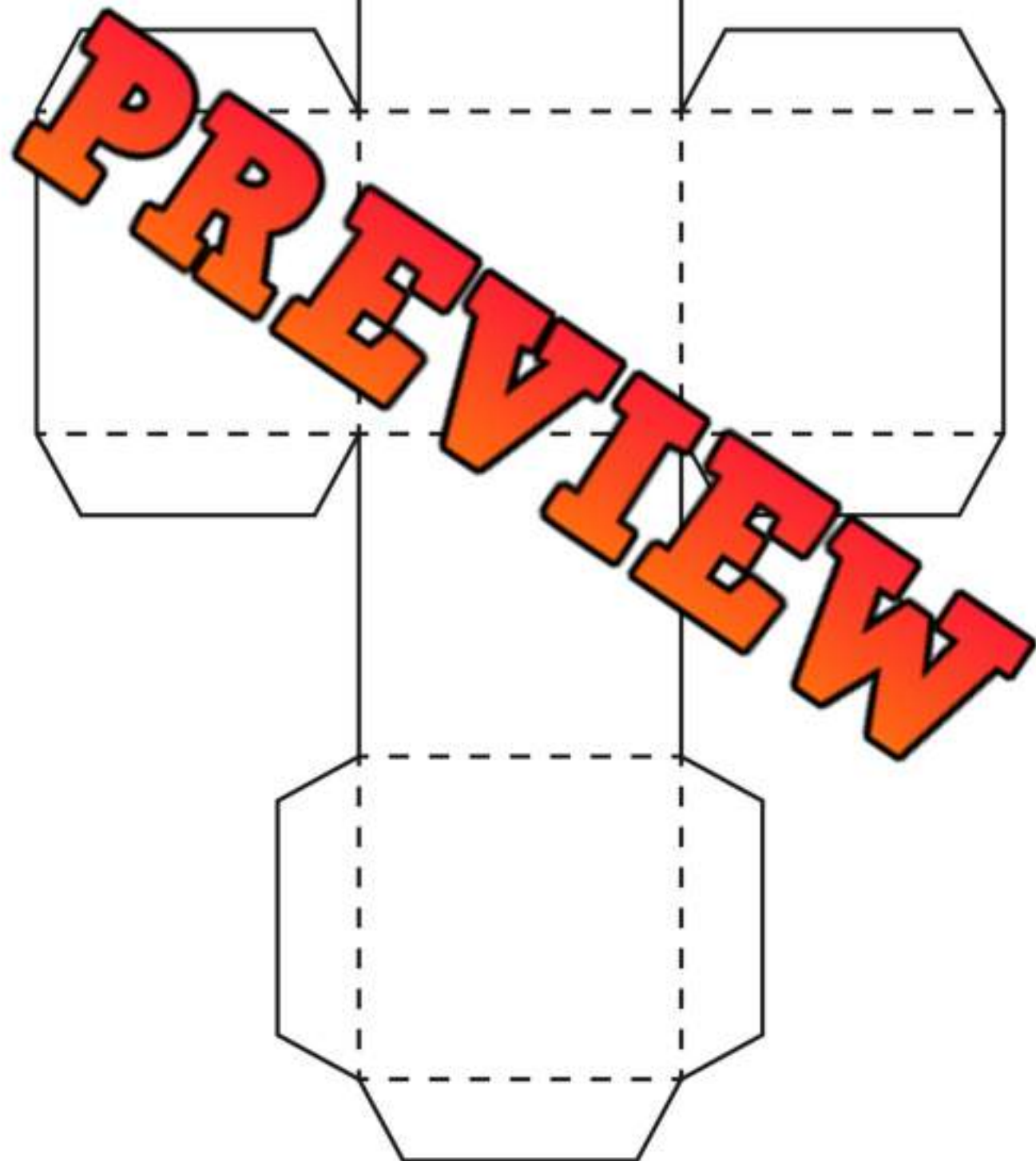


Name: _____

90

Curriculum Connection
SS2.1

Cube

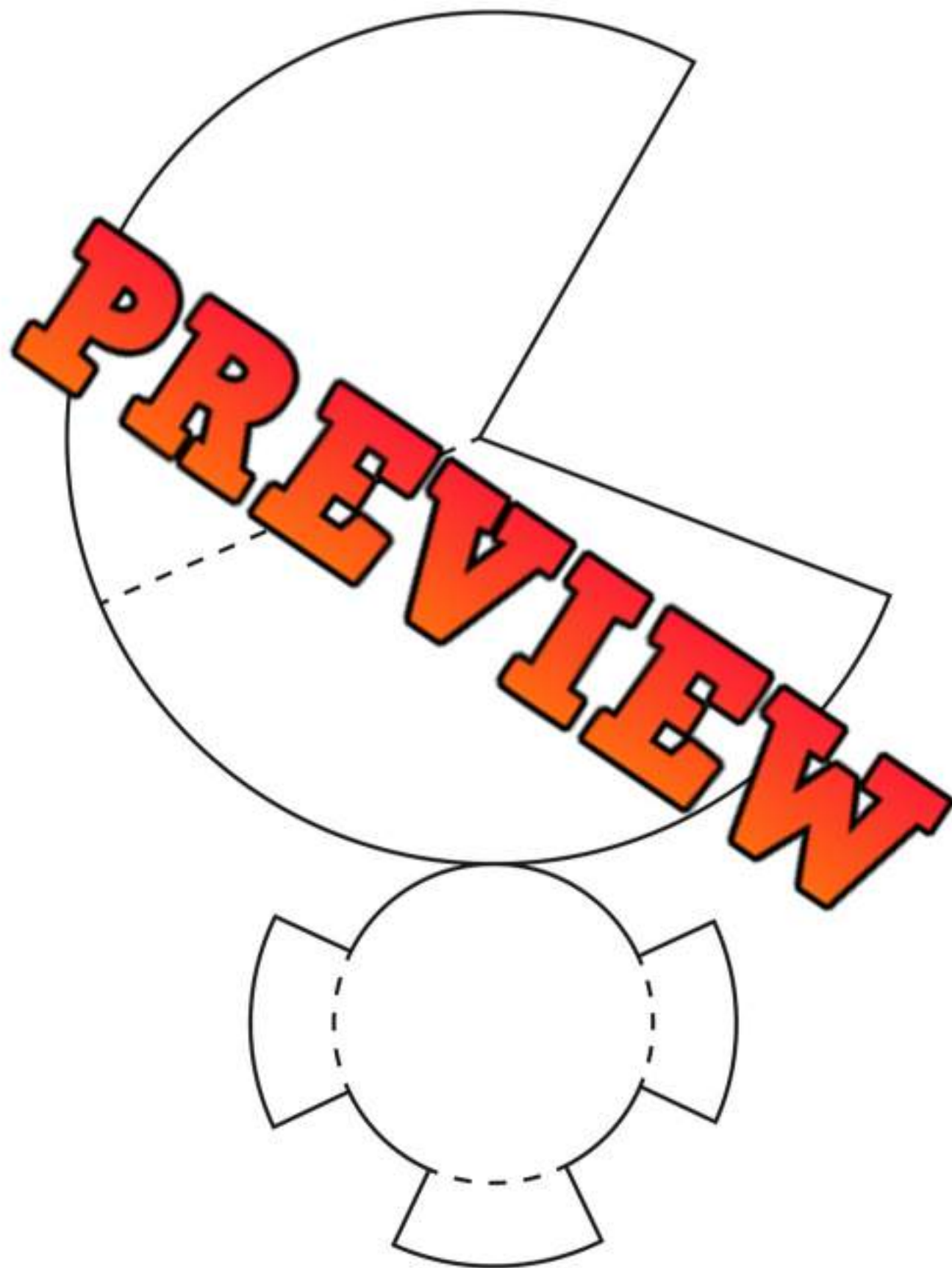


Name: _____

91

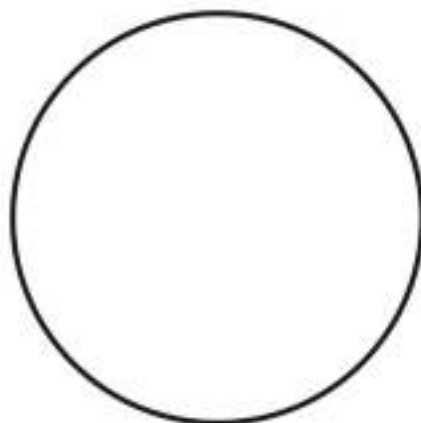
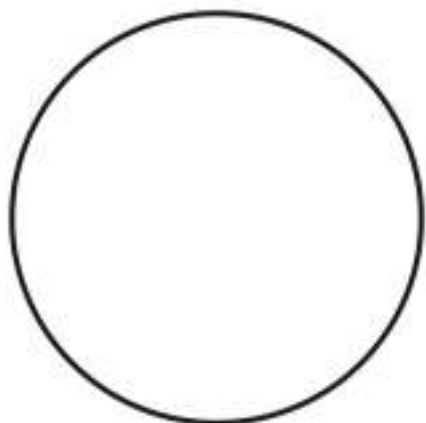
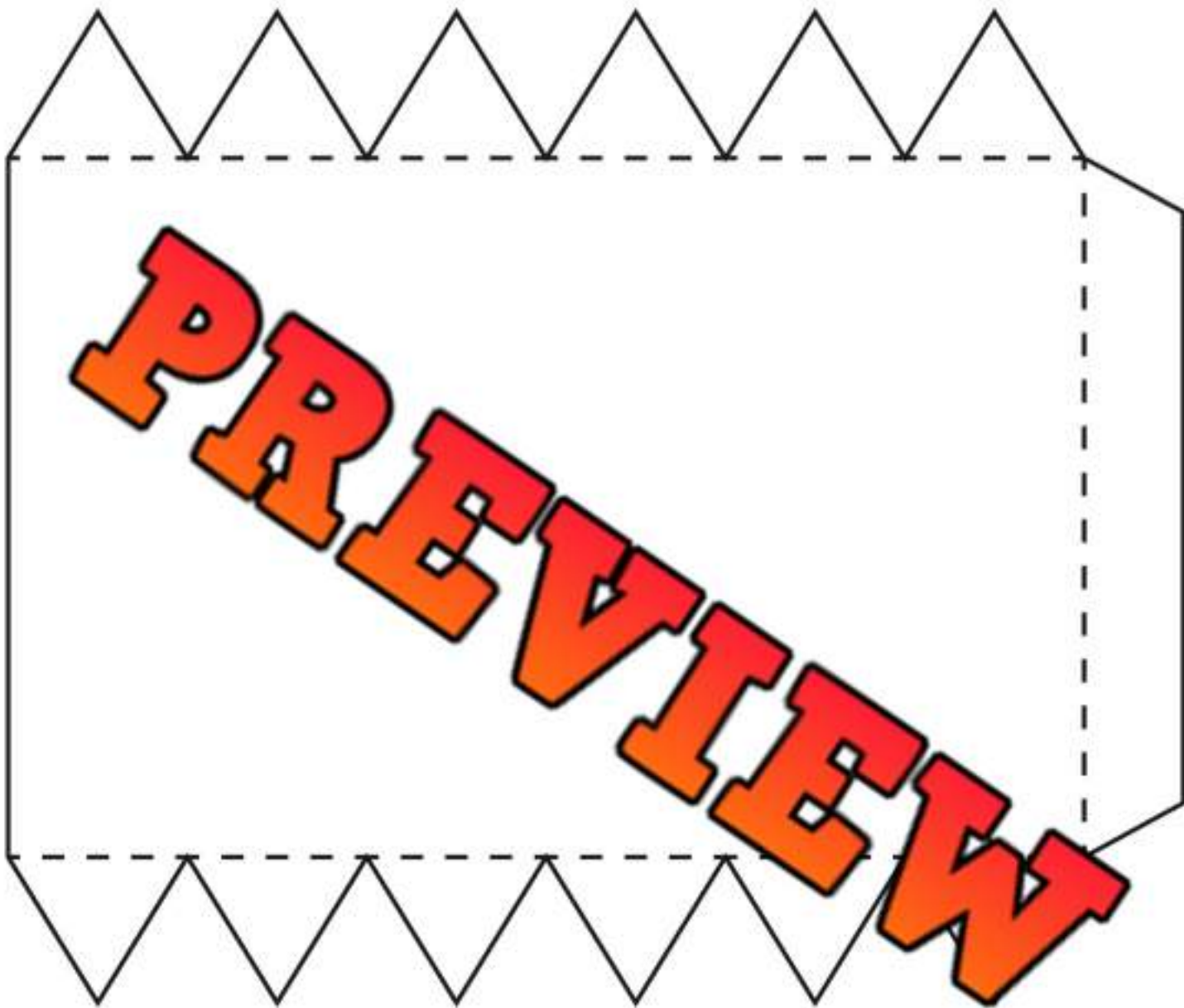
Curriculum Connection
SS2.1

Cone



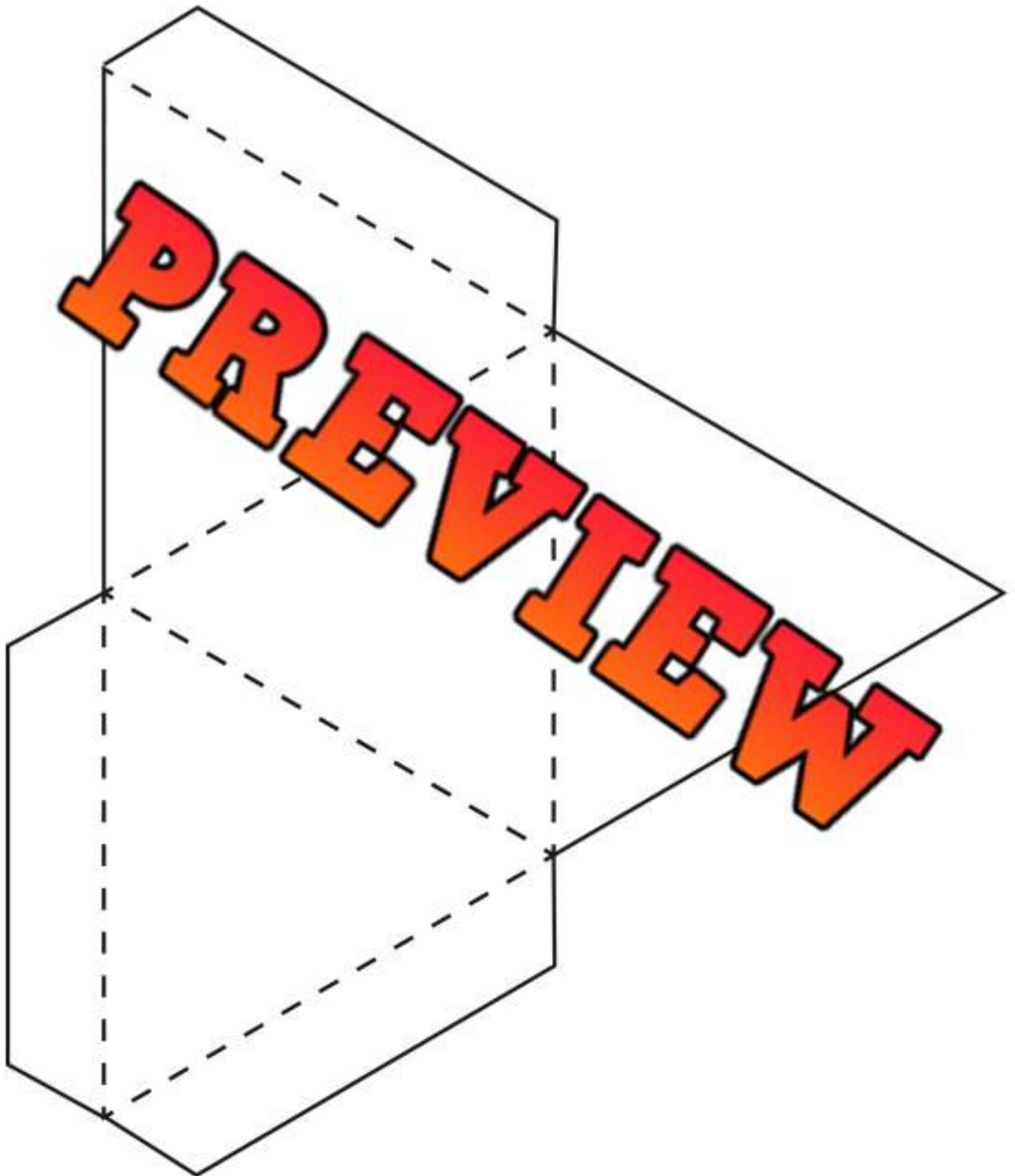
Name: _____

Cylinder



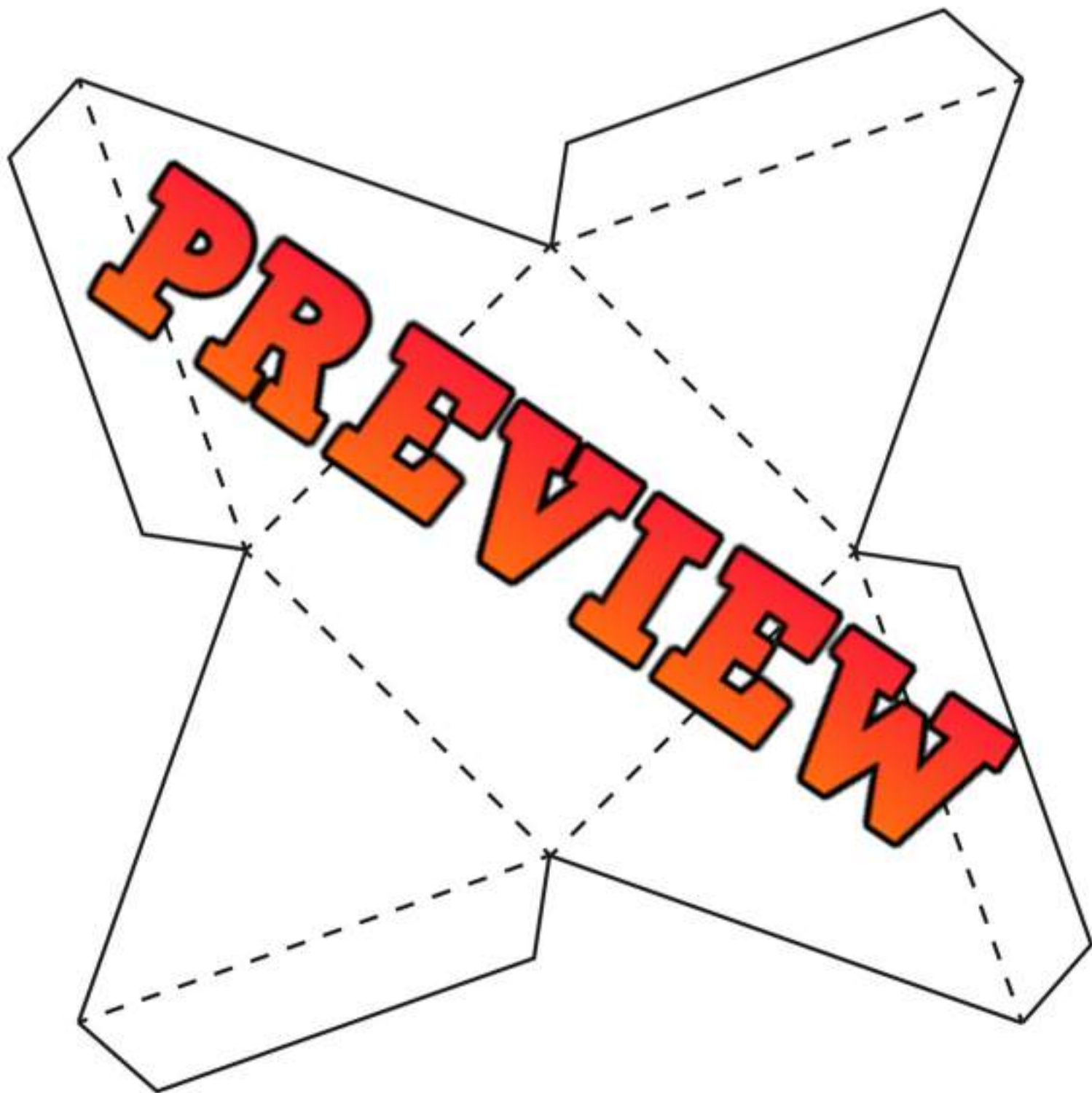
Name: _____

Triangular Pyramid



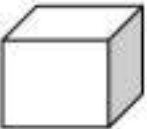

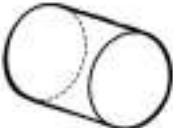




Name: _____

Square Pyramid



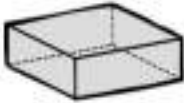

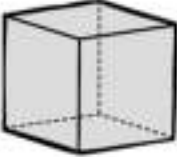




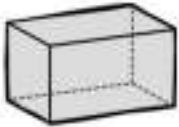




3D Models – Investigating Nets

Name of 3D Shape	Faces (Sides)	Edges	Vertices (Corners)
Triangular Prism 			
Rectangular Prism 			
Cube 			
Cone 			
Cylinder 			
Triangular Pyramid 			
Square Pyramid 			

PREVIEW

Sorting 3-D Shapes Using Two Attributes**Prism and Shaded****Non-Prism and White****PREVIEW****Questions**

Write the letter below each shape in the correct category.

					
A	B	C	D	E	F
					
G	H	I	J	K	L

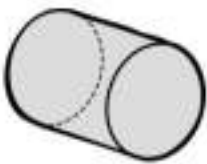
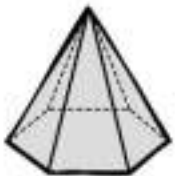
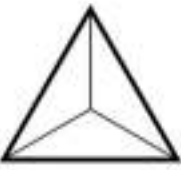



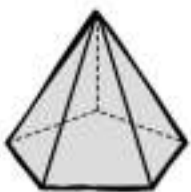
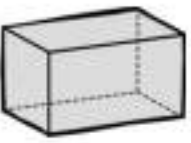

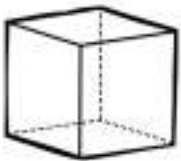
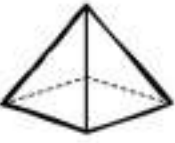

Sorting 3-D Shapes Using Two Attributes

Pyramid and Shaded	Pyramid and White
Non-Pyramid and White	Non-Pyramid and Shaded

PREVIEW

Questions

Write the letter below each shape in the correct category.

					
A	B	C	D	E	F
					
G	H	I	J	K	L

Sides of a Shape**Part 1**

How many sides does the shape have?

1.



2.



3.



4.



5.



6.



8.



9.



10.



11.



12.



13.



14.



15.

**Part 2**

Draw a shape with the correct number of sides

1)

2)

3)

4)

5)

4

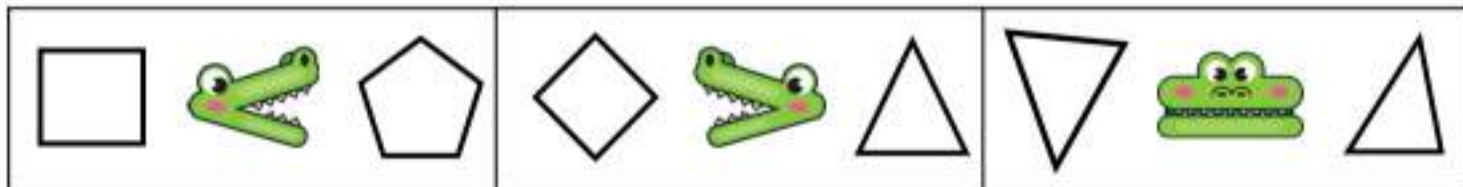
3

6

8











10

Comparing Shapes - Number of Sides



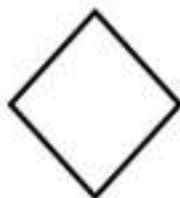
Questions

Circle the correct alligator

<p>1)</p> 	<p>2)</p> 
<p>3)</p> 	<p>4)</p> 
<p>5)</p> 	<p>6)</p> 
<p>7)</p> 	<p>8)</p> 
<p>9)</p> 	<p>10)</p> 

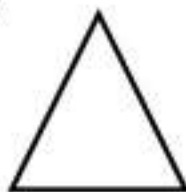
Comparing Shapes - Number of Sides**Questions**Compare the number of sides on the shapes using $<$ $>$ $=$

1)



4

5)



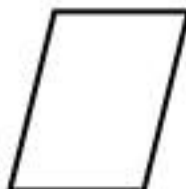
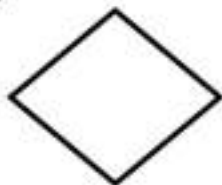
2)



6)



3)



7)



4)

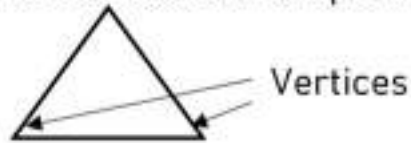


8)



Vertices

Vertices are where two sides meet. The vertices of a shape are the corners.



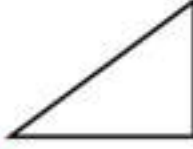
Part 1

Circle the vertices and write how many vertices the shape has

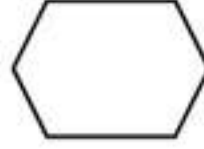
1.



3.



4.



5.



6.



7.



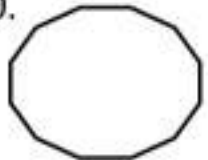
8.



9.



10.



Part 2

Draw a shape with the correct number of vertices

1)

2)

3)

4)

3

4

5

6

7

What do you notice about the number of vertices and sides that a shape has?

Sides and Vertices

Reminder: Side →  Vertices

Part 1

How many sides and vertices does the shape have?

1. 	2. 	3. 	4. 	5. 
___ sides	___ sides	___ sides	___ sides	___ sides
___ vertices	___ vertices	___ vertices	___ vertices	___ vertices
6. 	7. 	8. 	10. 	
___ sides	___ sides	___ sides	___ sides	
___ vertices	___ vertices	___ vertices	___ vertices	

Part 2

Draw a shape with the correct number of vertices and sides

1.	2.	3.	4.	5.
3 sides	4 sides	5 sides	6 sides	7 sides
3 vertices	4 vertices	5 vertices	6 vertices	7 vertices

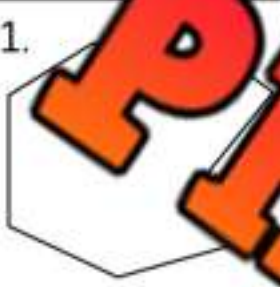

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

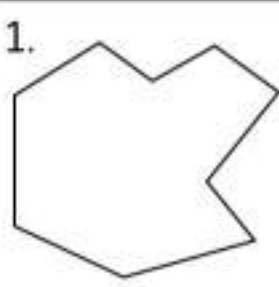
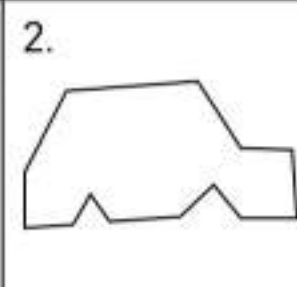
Name: _____

How many sides and vertices does the shape have?

1.	2.
	
_____ sides	_____ sides
_____ vertices	_____ vertices

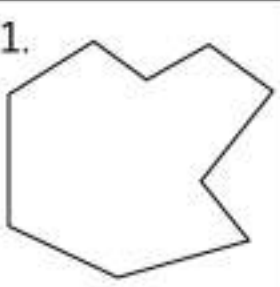
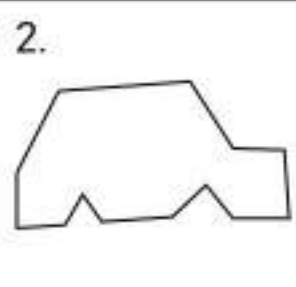
Name: _____

How many sides and vertices does the shape have?

1.	2.
	
_____ sides	_____ sides
_____ vertices	_____ vertices

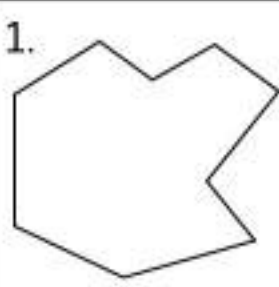
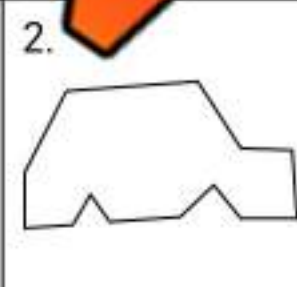
Name: _____

How many sides and vertices does the shape have?

1.	2.
	
_____ sides	_____ sides
_____ vertices	_____ vertices

Name: _____

How many sides and vertices does the shape have?

1.	2.
	
_____ sides	_____ sides
_____ vertices	_____ vertices

Activity: Create and Sort: 2D Shape Challenge

Objective

What are we learning about?

Students will learn to identify and create 2D shapes based on the number of sides and vertices and sort them accordingly.

Materials

What you will need for the activity.

- Construction paper (various colours)
- Scissors
- Glue sticks
- Pencils
- Rulers
- Handouts with sorting recording sheet
- Markers



Instructions

How you will complete the activity.




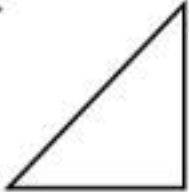
- 1) Introduce the different 2D shapes by showing examples of each (triangles, squares, rectangles, pentagons, hexagons, and circles). Discuss the number of sides and vertices for each shape.
- 2) Explain that today's activity is to create their own 2D shapes, cut them out, and sort them based on the number of sides and vertices.
- 3) Distribute construction paper, scissors, pencils, rulers, and glue sticks to each student.
- 4) Instruct students to look at the recording sheet and draw and cut out shapes that would match the criteria (number of sides and vertices.)
- 5) After cutting out the shapes, ask students to glue each shape onto their recording sheets above the correct category based on the number of sides and vertices.
- 6) Have a class discussion to review their work, discuss any challenges they faced, and reinforce the concept of sides and vertices in 2D shapes.




Naming Shapes

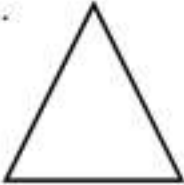
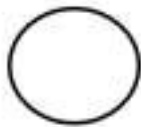
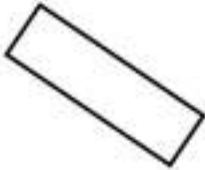
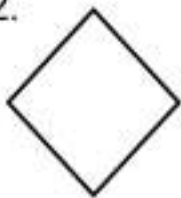
Questions

Fill in the blanks below

Word Bank - Triangle Circle Rectangle Square

	1. 	2. 	3. 	4. 
# of Sides	_____ sides	_____ sides	_____ sides	_____ sides
Name of Shape				

	5. 	6. 	8. 
# of Sides	_____ sides	_____ sides	_____ sides
Name of Shape			

	9. 	10. 	11. 	12. 
# of Sides	_____ sides	_____ sides	_____ sides	_____ sides
Name of Shape				

Drawing 2D Shapes**Questions**

Draw the 2D shapes below

1) Circle

2) Square

3) Rectangle

4) Triangle

5) Oval

6) Rectangle

7) Triangle

8) Diamond (Square)

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Draw the 2D shapes below.

Circle

Square

Rectangle

Triangle

Name: _____

Draw the 2D shapes below.

Circle

Square

Rectangle

Triangle

Name: _____

Draw the 2D shapes below.

Circle

Square

Rectangle

Triangle

Name: _____

Draw the 2D shapes below.

Circle

Square

Rectangle

Triangle

PREVIEW

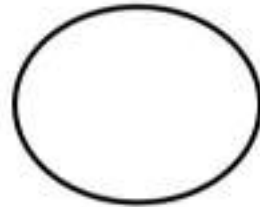
Real Life 2D Objects**Questions**

Circle the real-life object that resembles the 2D shape

1)



2)



3)



5)



6)



Finding Shapes in Our Lives

Questions Circle the shapes in the pictures below and write their names below

Word Bank

Triangle

Rectangle

Circle



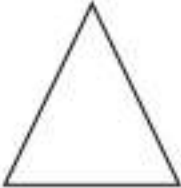



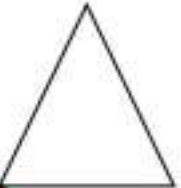





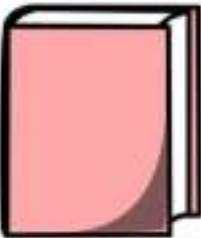

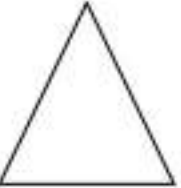



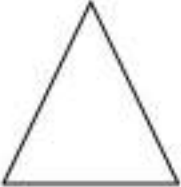

Square



PREVIEW

2D Shapes Found in 3D Pictures**Questions**


Circle the 2D shapes found in the 3D objects

3D Objects	2D Shape 1	2D Shape 2	2D Shape 3
			
			
			
			
			

2D Shapes Found in 3D Pictures

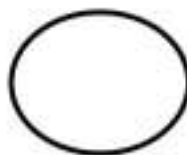
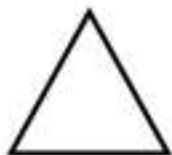
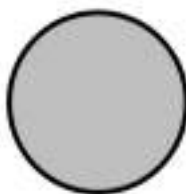
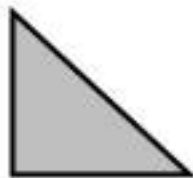
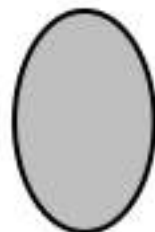
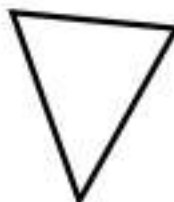
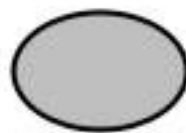
Questions

Circle the 2D shapes found in the 3D objects

3D Shape	2D Shape 1	2D Shape 2	2D Shape 3	3D Shape	2D Shape 1	2D Shape 2	2D Shape 3
	<input type="checkbox"/>				<input type="checkbox"/>		
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		
	<input type="checkbox"/>				<input type="checkbox"/>		
	<input type="checkbox"/>				<input type="checkbox"/>		
	<input type="checkbox"/>				<input type="checkbox"/>		

Unit Test - 3-D Objects, 2-D Objects and 2-D Shapes**Part 1**

Sort the shapes into the correct categories using the two attributes

Round and White**Round and Grey****Not Round and White****Not Round and Grey****PREVIEW****A****B****C****D****E****F****G****H****I****J****K****L**

Part 2

Write the letter below each shape in the correct category

Pyramid and Shaded

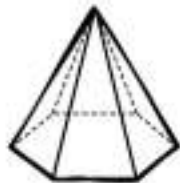
Prism and White

Pyramid and White

Prism and Shaded

PREVIEW

A



B



C



D



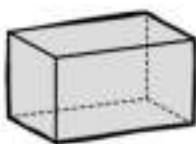
E



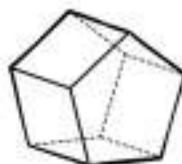
F



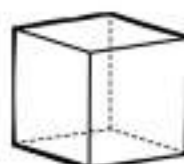
G



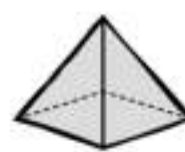
H



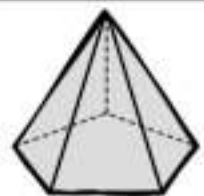
I



J



K



L

Part 3

Use the word bank to label the 3-D objects below

Word Bank

Triangular Prism

Rectangular Prism

Triangular Pyramid

Square Pyramid

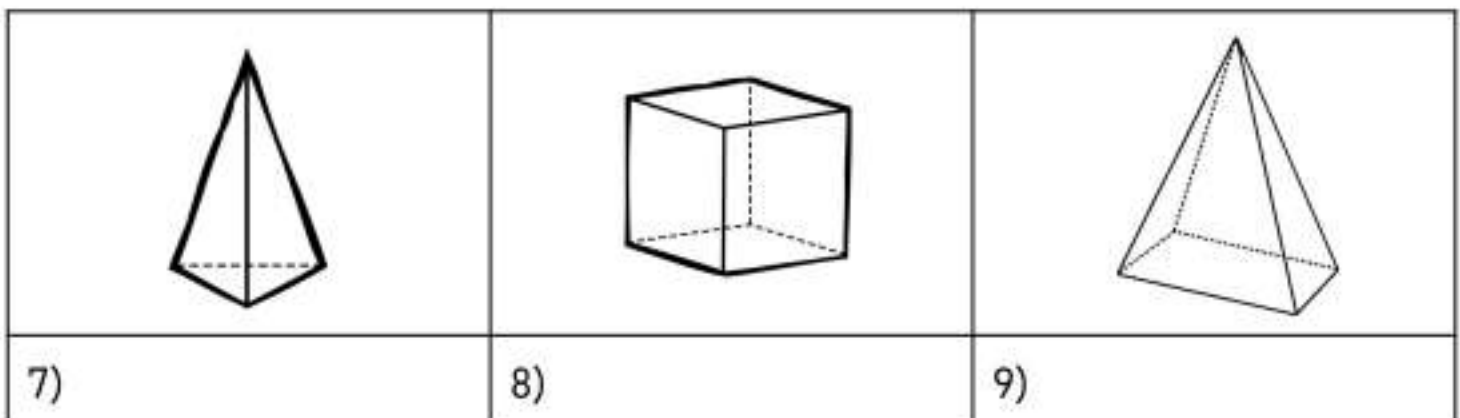
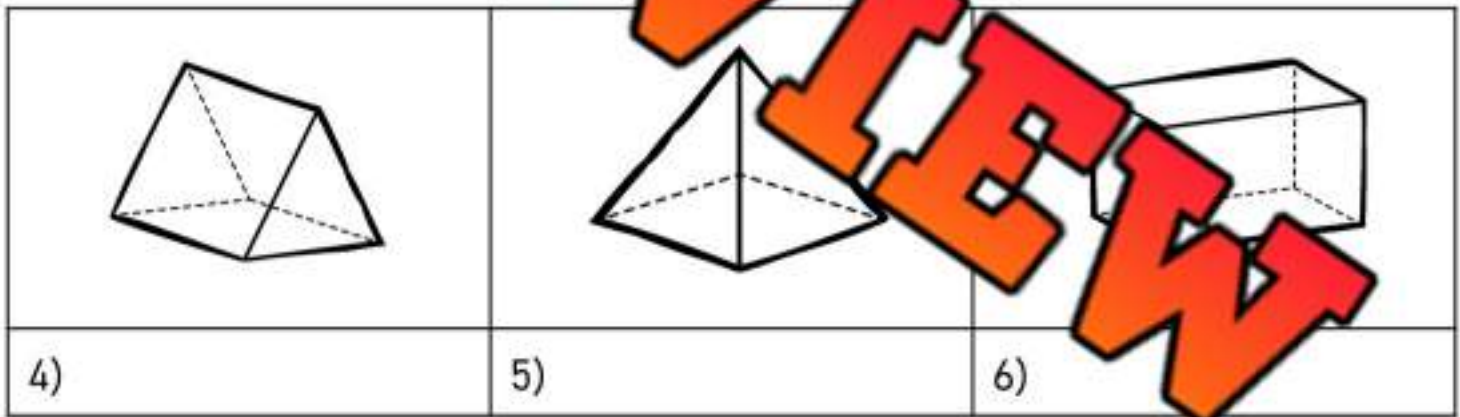
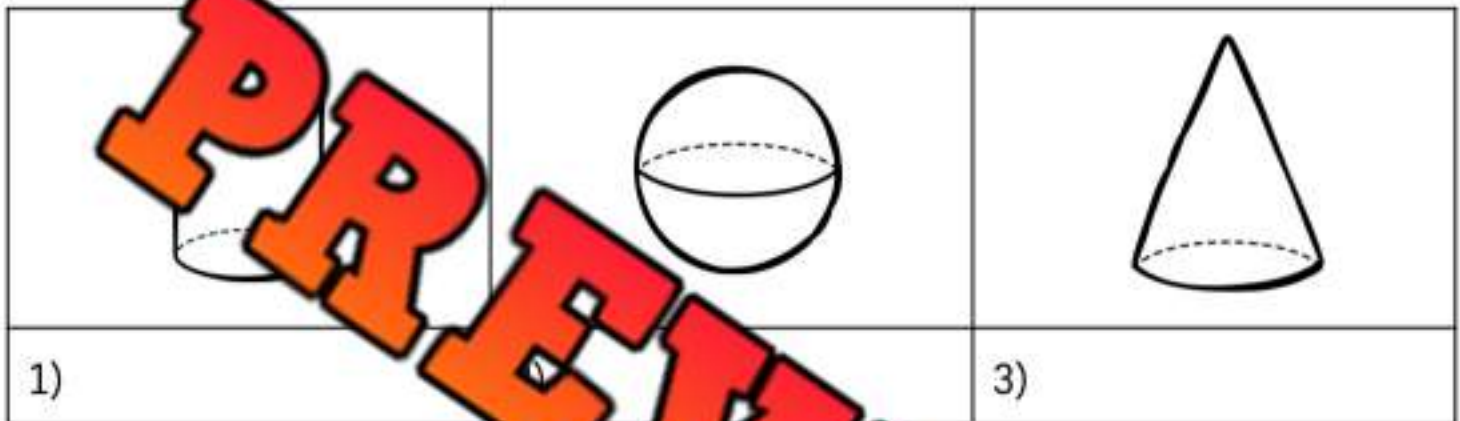
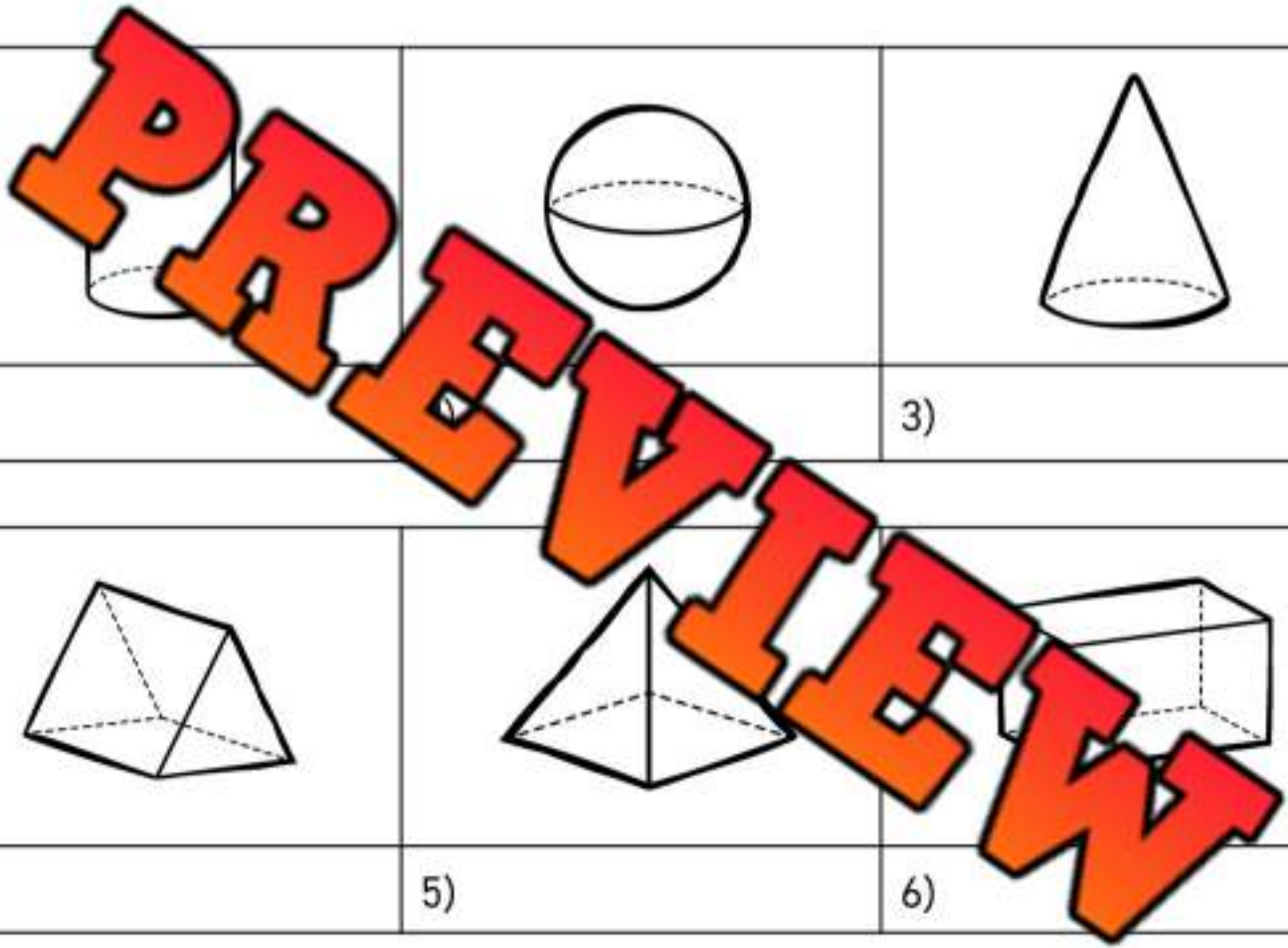
Rectangular Pyramid

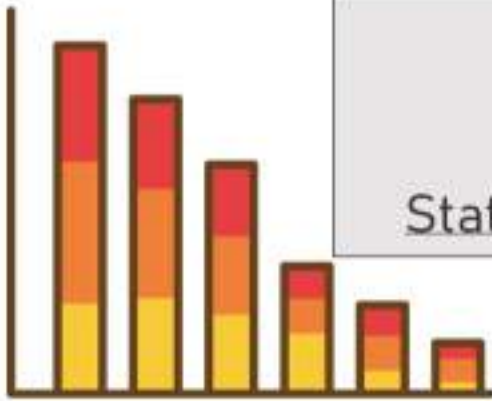
Sphere

Cylinder

Cone

Cube





Grade 2
Statistics and Probability



	Curriculum Outcomes	Pages

Preview of 40 pages from this product that contains 78 pages total.

Creating Questions

Practice

Write 4 options for the survey questions below

1) What is your favourite pizza topping?

a) _____

b) _____

c) _____

d) _____

2) What kind of ice cream do you like best?

a) _____

b) _____

c) _____

d) _____

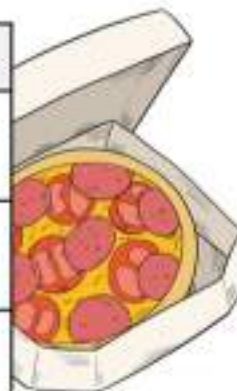
3) Which store is your favourite?

a) _____

b) _____

c) _____

d) _____



Creating Questions

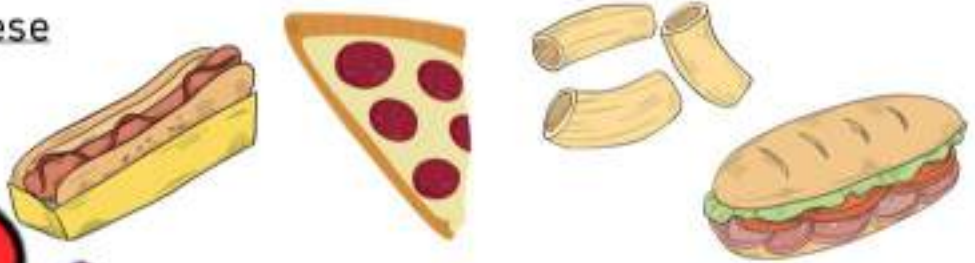


Practice

Write a question and 4 options for answers

1) What is your favourite food?

- a) Macaroni and Cheese
- b) Pizza
- c) Hot Dog
- d) Sandwich



2)

- a) _____
- b) _____
- c) _____
- d) _____

3)

- a) _____
- b) _____
- c) _____
- d) _____

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Write a question related to school and 3 options for answers.

Question: _____

Answers: _____

Name: _____

Write a question related to school and 3 options for answers.

Question: _____

Answers: _____

Name: _____

Write a question related to school and 3 options for answers.

Question: _____

Answers: _____

Name: _____

Write a question related to school and 3 options for answers.

Question: _____

Answers: _____

PREVIEW

Yes/No Survey - Checkmarks

Data Collection

Survey your classmates and use a ✓ or an X to collect the data

	Question - Example: Do you like pizza?	✓ or an X
1)	Do you like ice cream?	
2)	Have you ever been on a roller coaster?	
3)	Have you ever seen a rainbow?	
4)	Do you have a pet?	
5)	Do you like to play sports?	
6)	Have you ever flown in an airplane?	
7)	Do you like to eat vegetables?	
8)	Have you ever gone fishing?	
9)	Do you like to read books?	
10)	Have you ever seen a shooting star?	
11)	Do you like to dance?	
12)	Have you ever been to a concert?	
13)	Do you like to play video games?	
14)	Have you ever gone on a picnic?	
15)	Have you ever been to a museum?	

Name: _____

Making Lists

Questions

Sort the data below into correct lists

Banana

Cherry

Mango

Pineapple

Green Pepper

Apple



Kiwi

Cabbage

Tomato

Pear

Lemon



Strawberry

Radish

Beets

Carrot

Cantaloupe

Rasp

Spinach

Onion

Broccoli

Cucumber

Green bean

Orange

Vegetables

PREVIEW

Tally Marks

= 1	= 2	= 3	= 4	= 5
= 6	= 7	= 8	= 9	= 10

Part 1 Count the tally marks

_____	_____	_____	_____
_____	_____	_____	_____

Part 2 Draw tally marks that match the number

4 =	8 =	12 =
13 =	17 =	20 =
27 =	32 =	

Part 3 Which is greater? Use the < > or =

9 _____	11 _____	16 _____
---------	----------	----------

Activity Title: Tally Up the Fun!**Objective**

What are we learning about?

Students will practice counting and creating tally marks through a fun and interactive game.

Materials

What you will need for the activity.

- Dice (one per group)
- Whiteboard or sheet of paper
- Markers

**Instructions**

How you will complete the activity.

1. Divide the class into small groups of 3-4 students.
2. Provide each group with a dice and a whiteboard or sheet of paper.
3. Explain to the students that they will be rolling the dice and creating tally marks to represent the number they rolled.
4. For each round, each student will roll the dice. After one student rolls, write the tallies on the next page. Continue for the other group members.
5. After creating the tally marks for one round, the group will count them aloud to ensure they have the correct number.
6. Repeat steps 3-5 for a predetermined number of rounds (e.g., 10 rounds).
7. At the end of the activity, have each group share their tally mark totals and discuss any observations or patterns they noticed.

Name: _____

15

Curriculum Connection
5P2.1

Record Sheet

Record your result in the table below.

Round	Tally Marks	Total Count
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total Tallies		

PREVIEW



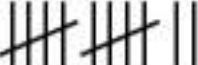

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

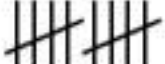
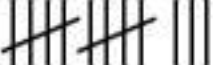


Name: _____

Which is greater? Use the < > or =

- 1)  _____ 8
- 2) 13 _____ 
- 3)  _____ 18
- 4) 21 _____ 

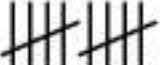

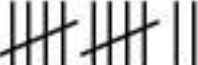
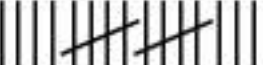
Name: _____

Which is greater? Use the < > or =

- 1)  _____ 8
- 2) 13 _____ 
- 3)  _____ 18
- 4) _____ 

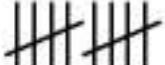
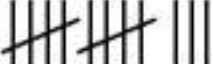
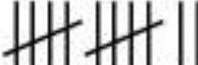

Name: _____

Which is greater? Use the < > or =

- 1)  _____ 8
- 2) 13 _____ 
- 3)  _____ 18
- 4) 21 _____ 

Name: _____

Which is greater?

- 1)  _____ 8
- 2) 13 _____ 
- 3)  _____ 18
- 4) 21 _____ 

Tally Tables – Chocolate Milk

Part 1

Fill in the tally table below



Chocolate Milk Orders by Day

Days of the Week	Tallies	Frequency
Monday		
Tuesday		
Wednesday		12
Thursday		
Friday		20

Part 2

Answer the questions below









1) Which day was the most popular for chocolate milk orders?	
2) Which day was the least popular for chocolate milk orders?	
3) How many more students ordered chocolate milk on Friday than on Wednesday?	
4) How many chocolate milk orders were made on Friday and Wednesday together?	

Tally Tables – Favourite Fruit

Part 1

Fill in the tally table below



Favourite Fruit		
Fruit	Tallies	Frequency
 Strawberry		
 Blueberry		8
 Raspberry		
 Banana		19
 Apple		

Part 2

Answer the questions below

1) Which fruit is the most popular?

2) Which fruit is the least popular?

3) How many more people like banana than apple?

4) Put the fruit in order from least popular to most popular.

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Available items in your class.

Pencil	Sharpener	Ruler	Eraser

Answer the questions below.

- 1) Which item is most available?

- 2) Which Item is the least available?

- 3) Write the items in order of least available to most available.

Name: _____

Available items in your class.

Pencil	Sharpener	Ruler	Eraser

Answer the questions below.

- 1) Which item is most available?

- 2) Which Item is the least available?

- 3) Write the items in order of least available to most available.

Name: _____

Available items in your class.

Pencil	Sharpener	Ruler	Eraser

Answer the questions below.

- 1) Which item is most available?

- 2) Which Item is the least available?

- 3) Write the items in order of least available to most available.

Name: _____

Available items in your class.

Pencil	Sharpener	Ruler	Eraser






















Answer the questions below.






- 1) Which item is most available?

- 2) Which Item is the least available?

- 3) Write the items in order of least available to most available.

Reading a Concrete Graph - Food

Grade 2's Favourite Food				
				
				
				
				
				
				
Burger	Fries	Salad	Pasta	

LEGEND	
Burger =	
Fries =	
Salad =	
Pasta =	
Sub =	

Questions

Read the concrete graph and answer the questions.

- a) Which food was the most popular?
- b) Which food was the least popular?
- c) How many total people were asked the survey question?
- d) How many more people like fries than salad?
- e) Put the food in order of most popular to least popular.

Creating a Concrete Graph - Hobby

Instructions

Use the survey data to create a concrete graph

Hanna wanted to know which hobby was the most popular. She asked her grade 2 classmates which hobby was their favourite. She used tallies to record the results.

Category	Reading	Computer	Gaming	Playing Outside
Tally				
Frequency				

Reading	Computer	Gaming	Playing Outside

LEGEND

Reading =



Computer =



Gaming =



Playing Outside =



Questions

1. What is the most popular hobby?

2. How many students did she survey?

Reading a Concrete Graph - Sports

LEGEND

Hockey =



Soccer =



Basketball =



Tennis =



Golf =



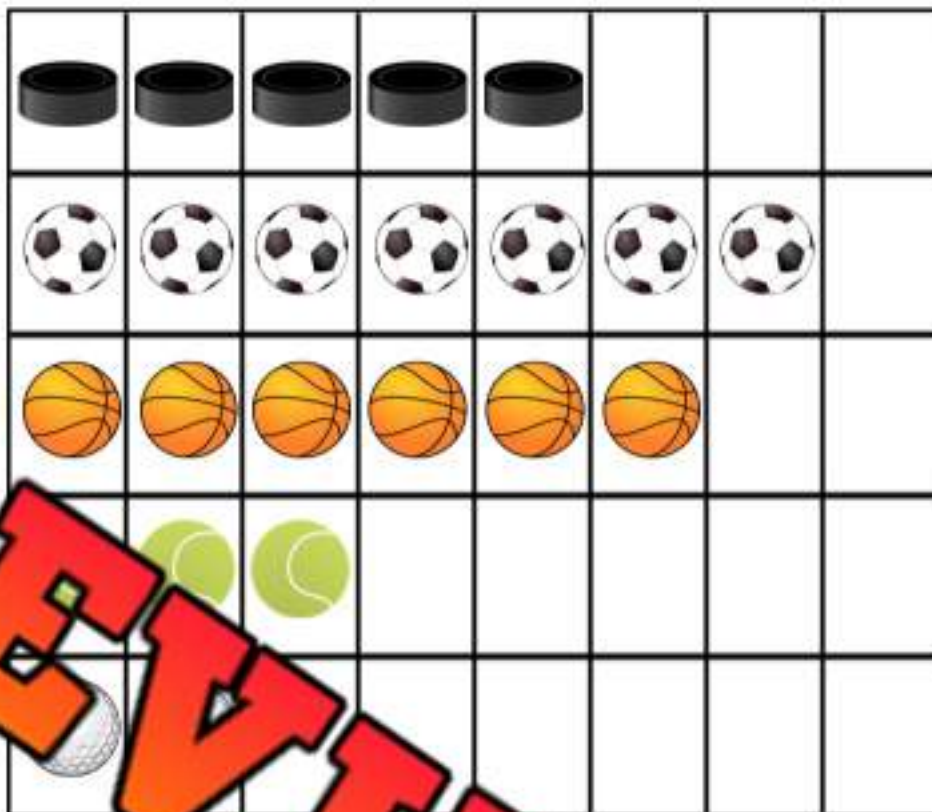
Hockey

Soccer

Basketball

Tennis

Golf



Questions

Read the concrete graph and answer the questions

- Which sport was the most popular?
- Which sport was the least popular?
- How many total people were asked the survey question?
- How many more people like soccer than golf?
- Put the sports in order of least popular to most popular.

Four Corners Activity: Reading Graphs

Objective What are we learning about?

Students will practice reading and interpreting concrete graphs by participating in a Four Corners activity.

Materials What you will need for the activity.

- A list of questions
- Large concrete graph
- Labels for each corner (A, B, C, D)





























Instructions How you will complete the activity.

1. Display the concrete graph prominently in the classroom so all students can see it.
2. Prepare the classroom by labelling each corner with letters A, B, C, and D.
3. Explain to the students that you will be asking them questions about the information shown in the graph.
4. When you read a question, students will move to the corner that corresponds to the answer they think is correct. Some of these will be opinion questions. For these questions, have students discuss their opinions in that corner with others who also chose that option. Then discuss as a class.
5. Once all students have chosen their corners, reveal the correct answer and discuss why it is correct.
6. Repeat with different questions to reinforce their understanding of concepts.

Graph

What did you learn from the concrete graph?

Grade 2's Favourite Season

Grade 2's Favourite Season			
			
			
			
			
			
			
			
			
Winter	Spring	Summer	Fall

Name: _____

27

Question	A	B	C	D
Which season has the most votes?	Summer	Spring	Fall	Winter
Which season has the fewest votes?	Winter	Fall	Spring	Summer
How many more votes does summer have compared to winter?	5	3	2	4
Which two seasons have the same number of votes?	Spring and Fall	Summer and Winter	Spring and Summer	Winter and Fall
How many total votes are there for all seasons?	26	35	41	22
Which season has the second most votes?	Spring	Winter	Fall	Summer
If 5 more students voted for spring, how many votes would spring have?	15	18	20	13
Which season has the fewest votes for most students?	Summer	Spring	Fall	Winter
If 3 students changed their vote from fall to winter, how many votes would winter have?	10	11	9	10
Which season has fewer votes, spring or fall?	Spring	Summer	Winter	Summer
What is the total number of votes for winter and summer combined?	5	7	8	10
If 2 votes were moved from summer to spring, how many votes would summer have?	3	4	5	6
How many votes does fall have?	5	7	8	10
If each student could only vote once, how many students are in the class?	20	26	30	34
How many more votes does spring have compared to fall?	0	1	2	3
Which season has more votes, summer or spring?	Summer	Fall	Winter	Spring
If 4 students changed their vote from winter to spring, how many votes would spring have?	19	16	14	12
Which season is your favourite?	Winter	Summer	Spring	Fall
How many votes do spring and fall have together?	16	15	18	25

Name: _____

Creating Your Own Concrete Graph

Instructions

Create your own survey question and collect data to graph

Survey Question: _____

Title

A large grid for data collection, consisting of 10 rows and 4 columns. A large, diagonal watermark reading "PREVIEW" in a bold, orange-to-red gradient font is overlaid across the grid.

Reading a Pictograph - Basketball

Grace's basketball team counted how many points each of the players scored in a tournament. The point totals for the starting 5 are displayed below in a pictograph.



= 1 point

a) How many points is one basketball worth?

b) Who scored the most points in the tournament?

c) How many total points did all 5 girls score?

d) How many more points did Jill score than Ellie?

e) Put the players in order of who scored the least to who scored the most.

1)

2)

3)

4)

5)

Activity Title: Flip the Data**Objective**

What are we learning about?

Students will engage in a fun and active game where they read data from a pictograph and answer questions to earn the opportunity to flip a bottle or cup.

Materials

What you will need for the activity.

- Board for writing
- A scoreboard to display bar graphs
- Timer (stopwatch or timer app)
- Question cards with math questions about the graph data
- Scoreboard to track the number of successful flips

**Instructions**

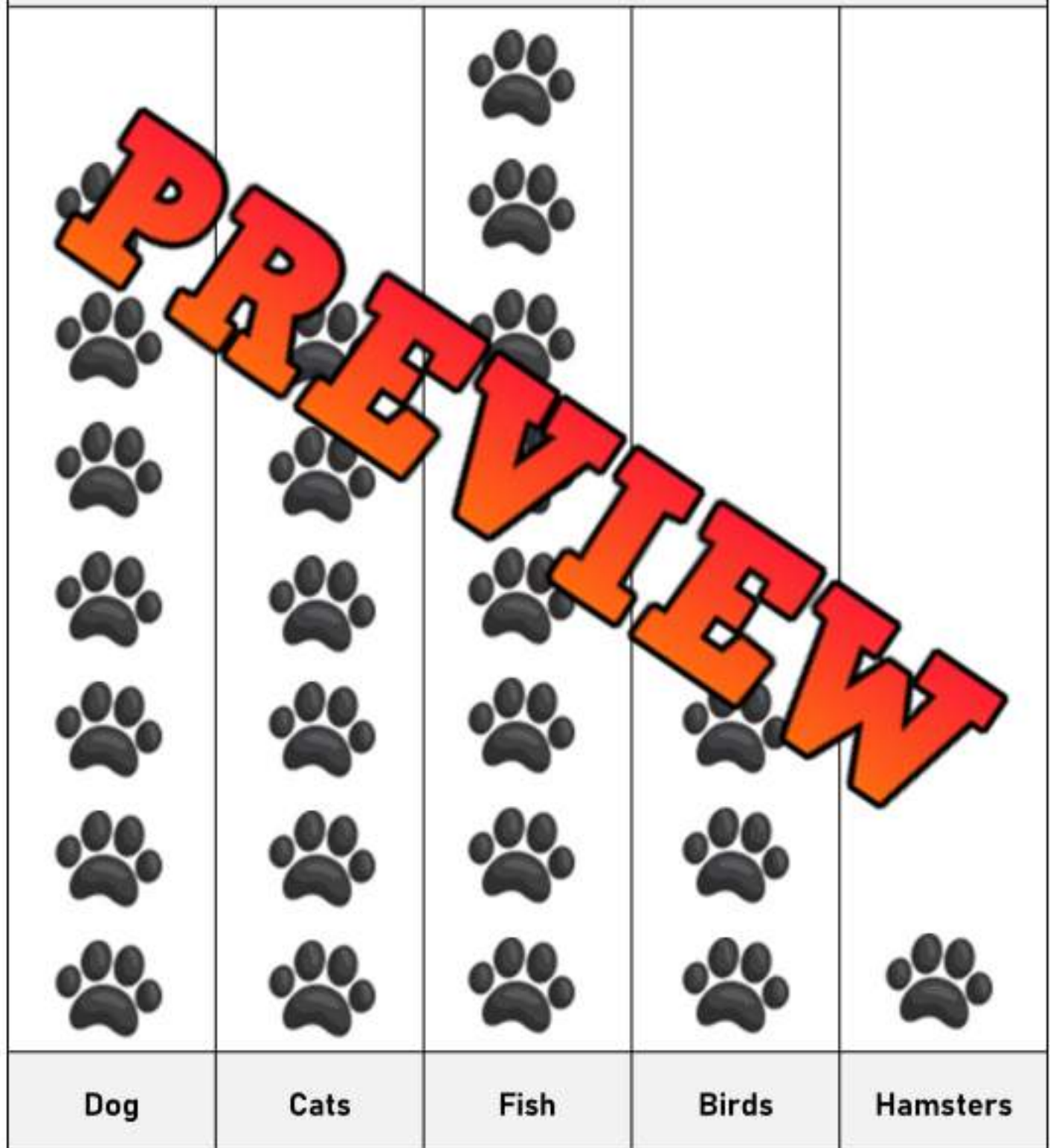
How you will complete the activity

1. Divide the class into small teams, ideally of 5 or 6 students each.
2. Prepare a series of pictographs to display on a smartboard with corresponding question cards that ask about the data in the graph.
3. One team at a time comes to the front where the graph is displayed.
4. Display the first pictograph on the smartboard.
5. The first student from the active team reads the graph and selects a question card. Start the timer when the question is first shown.
6. The student answers the question based on the data presented in the graph. The teacher checks the answer.
7. If the student answers correctly, they flip their bottle or cup repeatedly until they land it upright. When they do, the next teammate can take their turn.
8. If the student's answer is incorrect, they must try another question card before they can attempt to flip.
9. The team's turn ends either when all members have successfully flipped their bottle/cup or when the timer reaches a set limit (e.g., 3 minutes).
10. Record the team's time or number of successful flips on the scoreboard.
11. Repeat steps 4-10 for each team. The team with the fastest time/most flips wins.

Graph 1

What did you learn from the pictograph?

Number of Pets Owned by Students








Graph 3

What did you learn from the pictograph?

What Students Did Over the Weekend

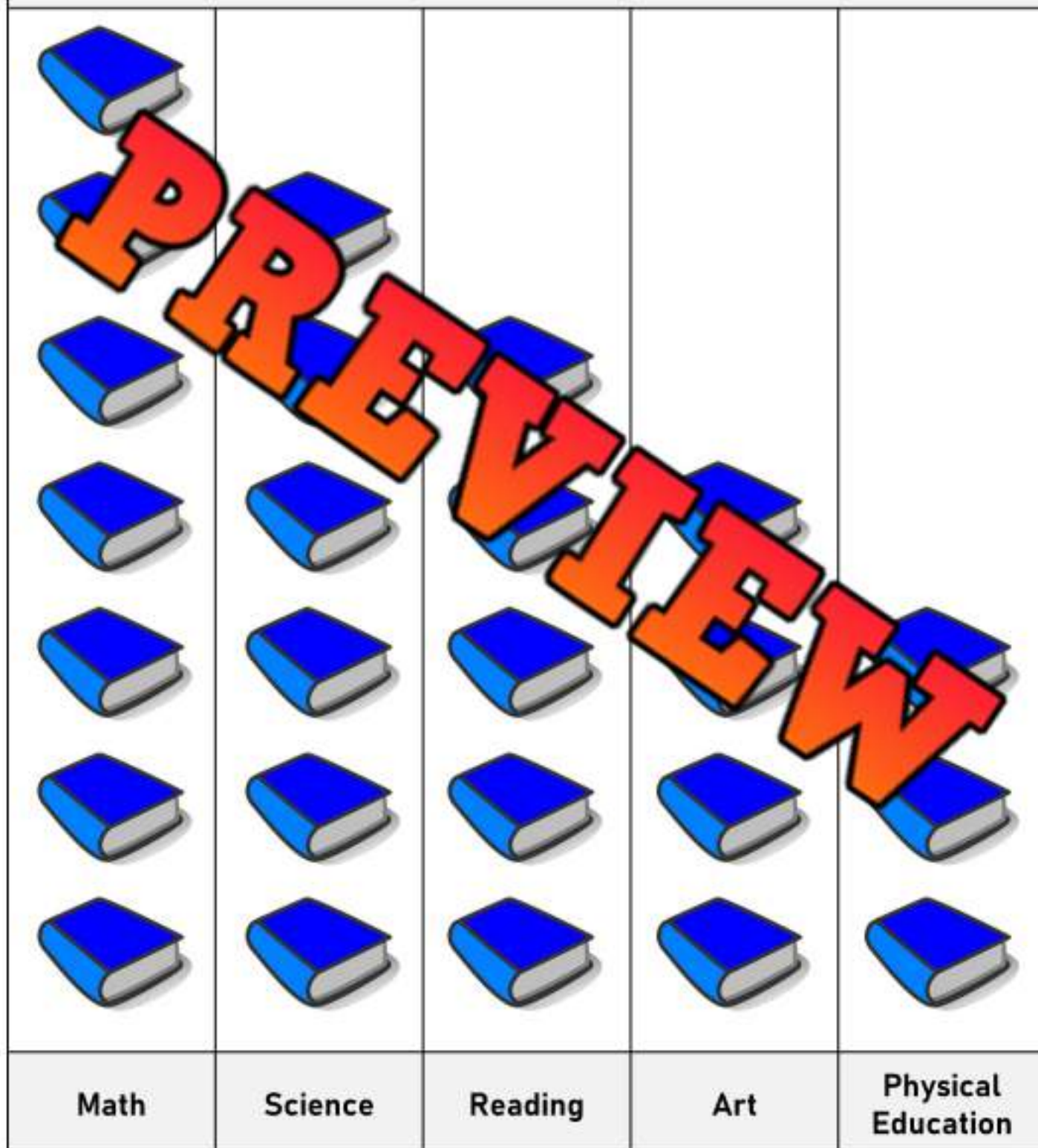
PREVIEW

				
Playing Sports	Reading	Watching TV	Visiting Family	Playing Video Game

Graph 4

What did you learn from the pictograph?

Favorite School Subjects of Students



Graph 5

What did you learn from the pictograph?

Types of Fruit Eaten by Students for Lunch



Questions

Choose a question to ask the student who is about to flip their bottle

Which category has the most votes?

Which category has the least votes?

How many votes are there in total?

How many categories are displayed on the graph?

How many categories have more than 5 votes?

How many categories have less than 4 votes?

How many votes are in the second most popular category?

How many categories have exactly 4 votes?

How many categories have a total number of votes that is an even number?

How many categories have a total number of votes that is an odd number?

Are there any categories that have the same number of votes? Which ones?

How many categories have between 3 and 6 votes?

How many categories have more than 6 votes?

Which category has exactly 3 votes?

How many items are there in the three most popular categories combined?

How many categories have a total of less than 6 votes?

If you could add another category to this graph, what would it be?

How many categories have exactly 5 votes?










Name a category that has an odd number of votes?

How might the information on the graph impact decisions or opinions?

Creating a Pictograph

Part 1

Read the concrete graph to get the data you need

Grade 2's Favourite Vegetable				Category	Frequency
				Broccoli	
				Carrots	
				Spinach	
				Potatoes	
					
Broccoli	Carrots	Spinach	Potatoes		

Part 2

Create a pictograph below

Vegetables	Votes
Broccoli	
Carrots	
Spinach	
Potatoes	

1 vote =



Creating a Vertical Pictogram

James participated in a reading challenge last week. He read each day and wrote down how many minutes he read for each day of the week.



Sunday	5
Monday	8
Tuesday	4
Wednesday	1
Thursday	6
Friday	7
Saturday	5



PREVIEW

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday



= 1 minute

- | | |
|--|--|
| 1) What day did he read the most? | |
| 2) How many more minutes did he read on Friday than Wednesday? | |
| 3) How many total minutes did he read for? | |

Creating a Horizontal Pictogram

Kevin and his friends went to an arcade on Saturday. They had a contest to see who could win the most tickets from the arcade games. The results are displayed in the table below.



Kevin	3
Neil	4
Steve	5
Dane	7
Chris	6



Questions

Draw a pictogram that displays the data above

Kevin	
Neill	
Steve	
Dane	
Chris	



= 1 ticket

1) Who won the most tickets?

2) How many more tickets did Dane win than Neil?

3) How many total tickets did the 5 kids win?

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Favorite ice cream flavor survey.

Chocolate = 6	Strawberry = 3
Vanilla = 5	Cookie Dough = 4

Draw a pictograph that displays the data above.



Chocolate	
Vanilla	
Strawberry	
Cookie Dough	

Name: _____

Favorite ice cream flavor survey.

Chocolate = 6	Strawberry = 3
Vanilla = 5	Cookie Dough = 4

Draw a pictograph that displays the data above.



= 1 Ice cream

Chocolate	
Vanilla	
Strawberry	
Cookie Dough	

Name: _____

Favorite ice cream flavor survey.

Chocolate = 6	Strawberry = 3
Vanilla = 5	Cookie Dough = 4

Draw a pictograph that displays the data above.



= 1 Ice cream

Chocolate	
Vanilla	
Strawberry	
Cookie Dough	

Name: _____

Favorite ice cream flavor survey.

Chocolate = 6	Strawberry = 3
Vanilla = 5	Cookie Dough = 4

Draw a pictograph that displays the data above.



= 1 Ice cream

Chocolate	
Vanilla	
Strawberry	
Cookie Dough	

Create a Pictograph - Seasons

Instructions

Survey your class and use the data in a pictograph

Survey Question: What is your favourite season?

Category	Summer	Winter	Spring	Fall
Taken				
Frequency				

Summer	
Winter	
Spring	
Fall	

= 1 Vote

1) What is the most popular season?	
2) What is the least popular season?	
3) How many people did you survey?	

Name: _____

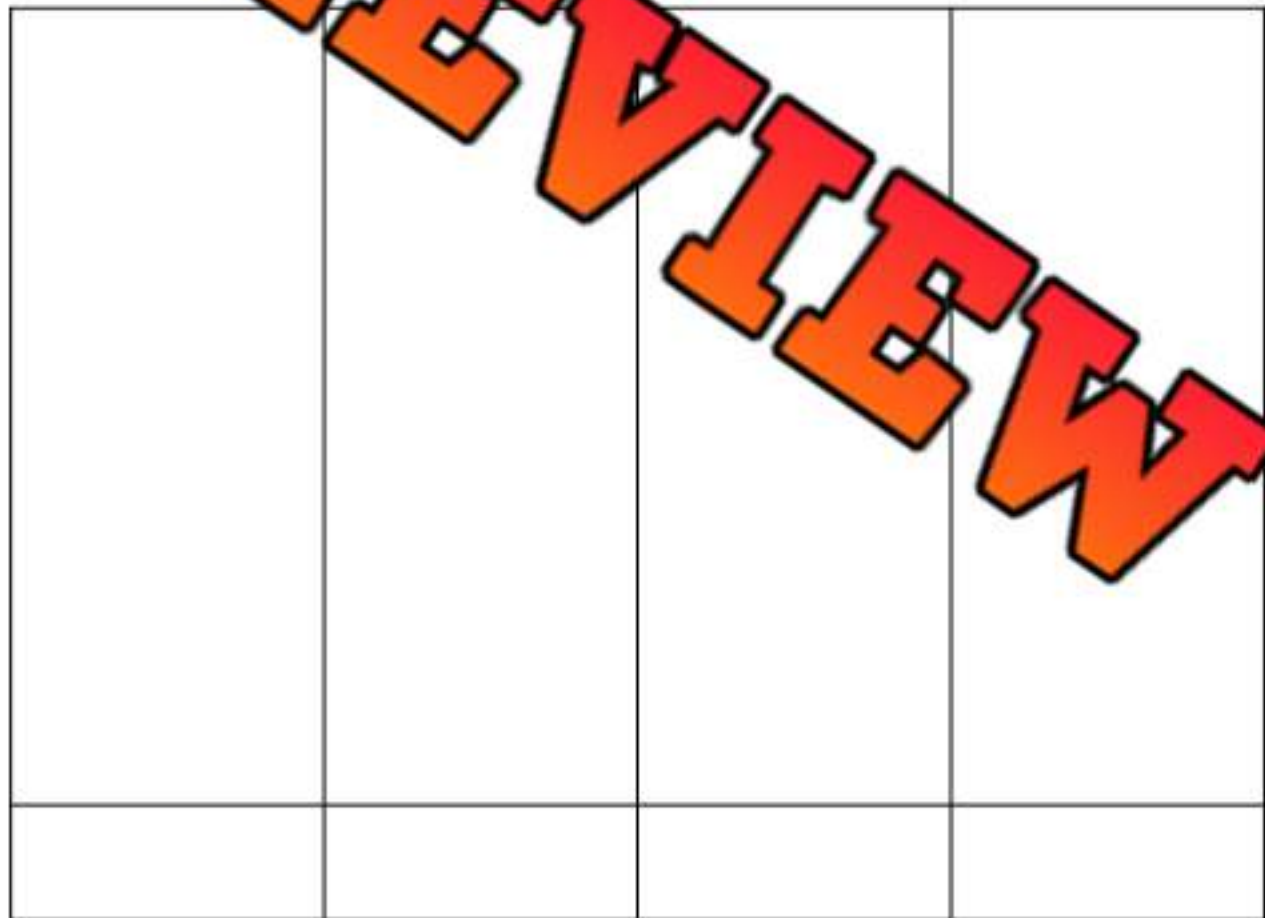
Create a Pictograph

Instructions

Survey your class and use the data to make a pictograph

Survey Question: _____

Category				
Total				
Frequency				



= _____ Vote(s)

Activity: Tally Mark Pictograph Scavenger Hunt

Objective

What are we learning about?

Students will use tally marks to collect and represent data, then interpret the information in a pictograph.

Materials

What you will need for the activity.

- Tally sheet
- Clipboard or board to write on
- Assorted small objects (e.g., buttons, pebbles, paperclips)



Instructions

How you will complete the activity

1. Begin by reviewing the concept of tally marks with the class. Explain that tally marks are a simple way to count and keep track of items, one for every.
2. Divide the class into small groups and distribute the tally sheets and clipboards.
3. Inform the students that they will be going on a scavenger hunt in the classroom to collect different types of small objects, such as buttons and paperclips.
4. Assign each group a specific object to search for and count using tally marks on their recording sheets.
5. Give the students a set amount of time (e.g., 5-10 minutes) to search the classroom and collect their assigned objects, counting them using tally marks as they go.
6. Once the time is up, have the groups return to their seats and create a pictograph to represent the data they collected. Encourage them to use the tally marks to determine the number of each object and then draw the corresponding number of pictures to create the pictograph.
7. Invite the groups to share their pictographs with the class and discuss the findings. Encourage the students to analyze the data and identify any patterns or trends they notice.

Sheet

Record your findings here.

Object	Tally Marks	Total Counts
Buttons		
Pebbles		
Paper Clips		
Erasers		
Pencils		
Crayons		
Rubber Bands		
Beads		
Sticks		
Small Toys		

PREVIEW

Sheet Draw a pictograph based on your recording sheet.






Items Students Found During Scavenger Hunt	
	Buttons
	Pebbles
	Paper-clips
	Erasers
	Pencils
	Crayons
	Rubber Bands
	Beads
	Sticks
	Small Toys

PREVIEW

Unit Test – Statistics and Probability

Part 1

Count the tally marks

 _____	 _____	 _____	 _____	 _____
--	--	--	--	--

Part 2

Draw tally marks that match the number

3 =	10 =	17 =
15 =		20 =

Part 3


Read the pictograph and answer the questions

LEGEND

Math = 

Art = 

Science = 

Gym = 

Math								
Art								
Science								
Gym								

a) Which subject is the most popular?

b) Which subject is the least popular?

c) Put the subjects in order of most popular to least popular.

Kerry is training for a marathon run. She practiced 5 days last week. The amount of kilometres she ran each day is listed below. Graph each of her runs in the concrete graph below.

Day 1	3
Day 2	6
Day 3	2
Day 4	
Day 5	



= 1 kilometre

- 1) Which day did Kerry run the most?
- 2) Which day did Kerry run the least?
- 3) How many more kilometres did she run on day 4 than day 3?
- 4) How many total kilometres did she run in the 5 days?