

Instructions: Choose from the options below. Enjoy as many or as few as you have time for.

Estimation

Talking about Math

Activities / Games

Problems

Technology

A

B

C

D

E



Victoria Day



## Time Me

Activity	Estimated Time	Actual Time
Brushing your Teeth		
Making your Bed		
Setting the Table		
Making Dinner		
Reading your Favourite Book		

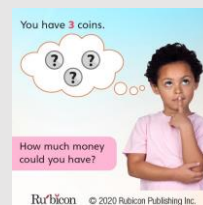
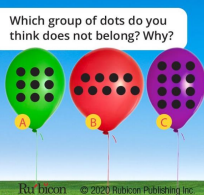
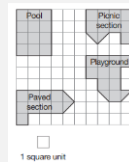
## Value of a Roll of Quarters



## How Many?

Activity	Estimate 1 Minute	Actual 1 Minute	Estimate 4 Minutes	Actual 4 Minutes
Stand up and Sit Down				
Clap your Hands				
Jumping Jacks				
Go up and down a hallway				
On the Floor				

## The Closest

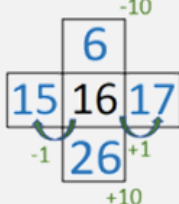


Open Questions: Learn at Home with Marian Small Sample solutions included in pages that follow.

## Toss and Add



## Hundreds Chart Problems



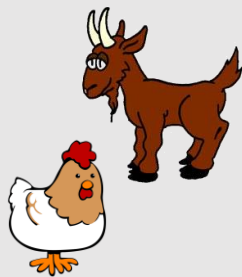
## Dresser / Closet Sort



## Rotating Spoons



## Farmer Montague



## Favourite Zoo Animal

Create a bar graph to represent the data in the table.

Animal	Number of friends
Monkey	5
Elephant	3
Penguin	2
Tiger	2



## Time Puzzle

60 minutes = ? hour(s)

180 minutes = 3 hours

? minutes = 5 hours

24 hours = ? day(s)

\*Special question:  
How much time do you spend sleeping?

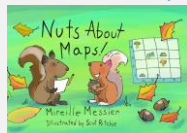
## Find the Pattern Rule and Complete the Pattern

93, 85, 77, \_\_, \_\_, 53,  
\_\_, \_\_, ...

What are the missing numbers?  
How do you know?  
Extend the pattern.  
What would be the 11<sup>th</sup> term?

[Solution](#)

## Read / Listen to Nuts About Maps

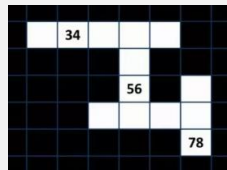


Can you create a map of your own yard, or even your bedroom?

## Exploring Shape Classification



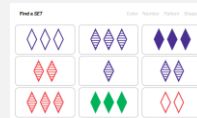
## Maze Hundreds Chart



\*Note: you will need PowerPoint

## SET

Select [How to Play](#) for instructions.



\*Note: can make the game user-friendly for those with colour deficiencies



Please click on this icon, wherever you see it, to access Indigenous content.

## Choice Board Background Information:

- ✓ Choice boards were created to provide flexibility in learning at home;
- ✓ Boards were planned for divisions: K-3, 4-6, 7-8 for open, individualized learning;
- ✓ Planned with recognition that parents may currently hold various roles at home;
- ✓ Designed to enhance the materials provided by the Ministry;
- ✓ Experiential learning focus with accessible materials at home;
- ✓ Low/No tech options;
- ✓ Accessible on mobile devices.

## Choice Boards - Parents Can:

- ✓ Choose as many or as few learning opportunities as desired;
- ✓ Follow the days of the week or be flexible in using the choice boards;
- ✓ Be confident that the learning is based in curriculum;
- ✓ Engage other children in the home in common experiential learning (i.e., baking, reading, playing math games, being active together);
- ✓ Click on the links provided for further learning and sample questions to ask;
- ✓ Have fun!



## Explanatory Notes: LEARN AT HOME CHOICE BOARDS FOR PARENTS AND EDUCATORS



## Choice Boards - Teachers Can:

- ✓ Create classroom-based choice boards for students while they are learning at home;
- ✓ Incorporate ideas from the choice boards into teaching practices, daily and weekly planning;
- ✓ Explore and incorporate new resources into classroom learning;
- ✓ Engage students and families in virtually sharing learning with one another;
- ✓ Expand on activities in order to provide individualized learning opportunities;
- ✓ Incorporate other UCDSB resources (i.e., Math Tool, VLC, links) to extend student learning.

## Choice Board Activities Provide:

- ✓ Clear connections to curriculum expectations and process skills;
- ✓ Open activities with options to individualize learning;
- ✓ Accessibility (many require little to no technology);
- ✓ Math – focus on numeracy skills;
- ✓ Literacy – focus on reading, writing, oral language and media literacy;
- ✓ French learning opportunities;
- ✓ Health and Physical Well-Being;
- ✓ Opportunities to foster connections within the household;
- ✓ Focus on conversation and thinking.








## Instructions:

- Pick an activity from the cart below.
- Estimate how long it will take to complete the chosen activity.
- Use a clock, watch, phone, etc. to time how long it actually takes.
- Try to complete as many activities from the chart as you can.
- Add your own to complete the chart.

## Questions for Conversation:

1. How close were your estimates to the actual times to do the activities? For which task was your estimate the closest? For which task was your estimate way off?
2. Were some activities more difficult to estimate? Why?
3. What strategy did you use to estimate?
4. If you started brushing your teeth at 7:23 PM, at what time would you finish?
5. If you started reading your favourite book at 10:55 AM, at what time would you finish reading?

Activity	Estimated Time	Actual Time	Difference between Estimate and Actual
Brushing your Teeth 			
 Making your Bed			
Setting the Table 			
 Making Dinner			
Reading your Favourite Book 			



# Estimate the Value of a Roll of Quarters

<http://www.estimate180.com/day-149.html>



Estimate the value of a roll of quarters.

	Too Low	Too High	Just Right
Estimate			
Reasoning			



Verify your estimate here



# How Many Times?

Estimate how many times you think you can do each of these activities in 1 minute. How did you determine your estimate?

Estimate how many times in 4 minutes? How did you determine your estimate?

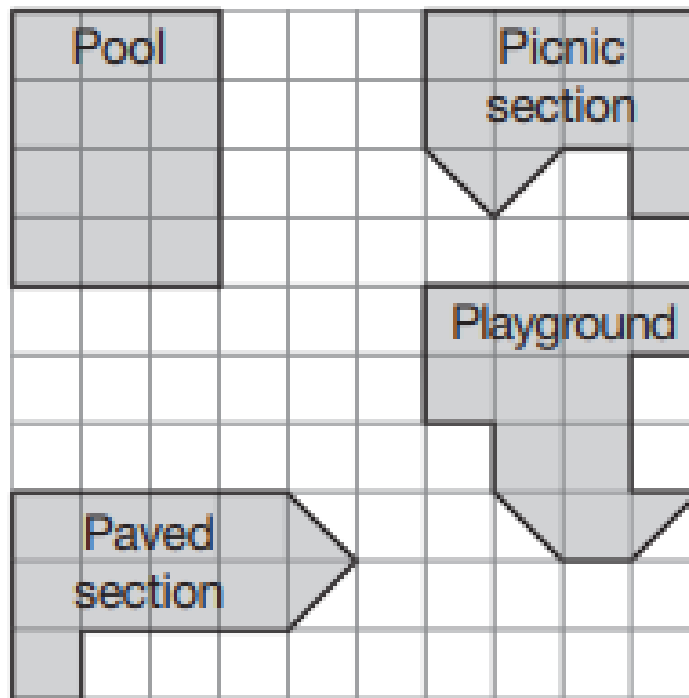
Try it out!

Do each activity for 1 minute.

Then, do each activity for 1 minute four times.

- ✓ Stand up and sit down
- ✓ Clap your hands
- ✓ Jumping Jacks
- ✓ Go up and down a hallway
- ✓ Do the *Floss Dance*

Activity	Estimate 1 Minute	Actual 1 Minute	Estimate 4 Minutes	Actual 4 Minutes
Stand up and sit down				
Clap your hands				
Jumping Jacks				
Go up and down a hallway				
Do the <i>Floss Dance</i> <a href="#">Don't know how to floss, watch this!</a>				



1 square unit

<https://www.eqao.com/en/assessments/primary-division/assessment-docs/g3-measurement-strand-2012-2016.pdf>

## The Closest

- Which has an area closest to 11 square units?
- How did you come up with your answer?
- Verify!

Extend: What shapes do you see in the images above?





Which group of dots do you think does not belong? Why?



Rubicon

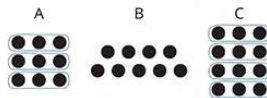
© 2020 Rubicon Publishing Inc.

<https://twitter.com/rubiconpubs/status/1250444567662526465?s=20>

#### SAMPLE RESPONSE

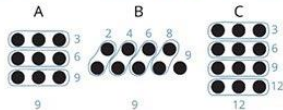
##### Sample Response 1

I think group B does not belong because the dots are not arranged in groups of 3.



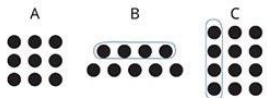
##### Sample Response 2

I think group C does not belong because it has 12 dots. The other groups have 9 dots.



##### Sample Response 3

I think group A does not belong. Both B and C have a row or column of 4, but A doesn't.



Rubicon

© 2020 Rubicon Publishing Inc.

#### ADDITIONAL SUPPORT

##### And the Point Is ... ⓘ

The purpose of this Number Talk is to help students think about the similarities and differences among dot arrangements and see that there are many ways to think about the same sets of dots.

As students volunteer their strategies, represent their thinking visually and symbolically. For example, you might annotate the dot arrangements as shown in the sample responses.

To consolidate the learning, you might ask the following question:

- Why do you think this question has so many possible answers?  
E.g. There are many different ways to look at the groups of dots. For example, you could think of group A as groups of 3 or as a total of 9. Because each group can be thought of in more than one way, there are lots of possible answers.

Rubicon

© 2020 Rubicon Publishing Inc.



Someone is making spaghetti for just you.  
How many noodles should be put in the pot?



Ru**bi**con © 2020 Rubicon Publishing Inc.

<https://twitter.com/rubiconpubs/status/1255174951633641481/photo/1>

#### SAMPLE RESPONSE

##### Sample Strategy 1

Students might divide a box of spaghetti into quarters, then count a half of one-quarter, then double their answer.

E.g., I found out that a box of spaghetti is enough for 4 people, so I opened a box. I took out about half of the noodles. Then I took about half of that. That would be how many noodles I would want. Instead of counting all those noodles, I counted half of them. There were almost 50 in that half, so that means it takes about 100 noodles for just me to have enough spaghetti.

##### Sample Strategy 2

Students might examine a photo of a serving of spaghetti, then divide it into countable sections.

E.g., I looked at a picture of a plate of spaghetti. I could see about 8 long noodles on the top, and it looked like there might be 5 layers of those 8 noodles. That would make  $8 + 8 + 8 + 8 + 8 = 40$  noodles. But that was just the middle. There is probably another 40 noodles on each side, so that is  $40 + 40 + 40$ . I used base ten rods. That's 12 rods. That's 120 noodles. I think about 120 noodles is just right for me.

Ru**bi**con © 2020 Rubicon Publishing Inc.

#### ADDITIONAL SUPPORT

##### How You Could Handle This

Some understanding of the following may help students achieve success:

- a sense of how big a serving of spaghetti is
- ability to count larger numbers of things

You might help students focus on the problem by asking them why there is no single correct answer.

You might ask questions such as the following to help students solve the problem:

- Suppose you want to know the number of noodles on a plate. How could counting the number on half a plate help you?

E.g., I could double the answer to find how many noodles covered the whole plate.

- Do you think your answer would change if some noodles were shorter or longer than others?

E.g., Yes, it takes more short noodles than long noodles to fill a whole plate.

##### What Could You Do If ...

Students have no idea how to begin.

You could ... Suggest students look at an image of a plate of spaghetti. Or you might provide a box of spaghetti so that students could count the uncooked noodles.

Ru**bi**con © 2020 Rubicon Publishing Inc.





Julia has four times as many coins as Ben.

- How many coins might Ben and Julia have?
- Suppose Ben has three coins.  
Why does  $4 \times 3$  tell the number of coins Julia has?
- Who do you think has more money? Can you be certain?

**Ru'bicon**

© 2020 Rubicon Publishing Inc.  
<https://twitter.com/rubiconpubs/status/1253007962282561538/photo/2>

#### SAMPLE RESPONSE

- How many coins might Ben and Julia have?

**Sample response 1**

E.g., Ben 1, Julia 4

OR Ben 2, Julia 8

OR Ben 3, Julia 12

- Suppose Ben has three coins.  
Why does  $4 \times 3$  tell the number of coins Julia has?

**Sample response 2**

E.g., If Ben had 3 coins, then Julia would have 12 coins, and  $4 \times 3 = 12$ .

OR  $4 \times 3$  means 4 groups of 3 and if Ben had 3 coins, Julia's 12 coins could be in 4 groups of 3.

- Who do you think has more money? Can you be certain?

**Sample response 3**

E.g., You can't be certain. If all the coins are the same, Julia has more money.

If the coins are different, either of them could have more money.

**Ru'bicon**

© 2020 Rubicon Publishing Inc.

#### ADDITIONAL SUPPORT

##### And the Point Is ... ⓘ

This open question is designed to see how students respond to the concept of multiplication as a comparison situation. The openness of the question will allow for many correct answers and a rich discussion.

Students can represent the coins with counters, although using materials is optional. Ultimately, the goal is for students to solve these types of questions mentally.

This question provides an opportunity for students to discuss the difference between the values of coins and the number of coins, an important mathematical idea they deal with in other topics.

**Ru'bicon**

© 2020 Rubicon Publishing Inc.



You have 3 coins.



How much money could you have?



Ru**bi**con

© 2020 Rubicon Publishing Inc.

<https://twitter.com/rubiconpubs/status/1250076883917639682/photo/2>

#### SAMPLE RESPONSE

##### Sample Response 1

If each of the coins were a nickel, I could count by 5s: 5, 10, 15. So, I would have 15¢.



##### Sample Response 2

I could have 3 dimes. I would count 10, 20, 30. I would have 30¢.



##### Sample Response 3

I could have 2 dimes and a nickel. Then I would have 25¢ because I would count 10, 20, and then 5 more than 20 is 25.



Ru**bi**con

© 2020 Rubicon Publishing Inc.

#### ADDITIONAL SUPPORT

##### And the Point Is ... ⓘ

The purpose of this Number Talk is for students to develop strategies for counting a variety of money amounts.

As students volunteer their strategies, represent their thinking visually and symbolically. For example, you might use play coins.

To consolidate the learning, you might ask the following question:

- Why are 3 dimes worth more money than 3 nickels?  
E.g. Each dime is worth more than each nickel.

Ru**bi**con

© 2020 Rubicon Publishing Inc.

# Toss and Add



## Required Materials:

- 6 plastic cups
- Sharpie
- Something to toss (ball, bean bag, stuffie) to knock down the cups
- Something to keep score

## Instructions:

- Write the numbers 1 to 6 on the plastic cups. Alternatively, use tape if you don't want to permanently number the cups.
- Set the cups up in a pyramid, as shown.
- Establish a start line.
- Have your child(ren) toss the ball to knock down the cups.
- Add the number score of cups that are knocked down.
- Record this score on a chart.
- Take turns to see who can get the highest score.

## Change it Up:

- Use different numbers.
- Start with a target number of 50, 100, 150, or 250 and subtract scores to see who can get to zero first.



<https://www.notimeforflashcards.com/2013/09/shoot-add-nerf-gun-math.html>

# Hundreds Chart Problems



## Required Materials:

Pencil and Paper (graph paper is best)

[Hundreds Chart](#)

[Pentomino Shapes](#) (see below)

Want to try this problem digitally?

Check out [Steve](#)

[Wyborne's Maze](#)

[Hundred Chart here.](#)

## Instructions:

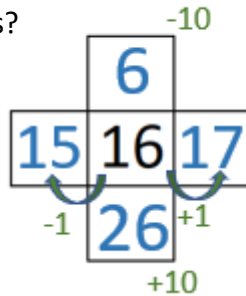
Pick a pentomino shape from below.

Carefully draw it on paper (or print it from this [page](#)).

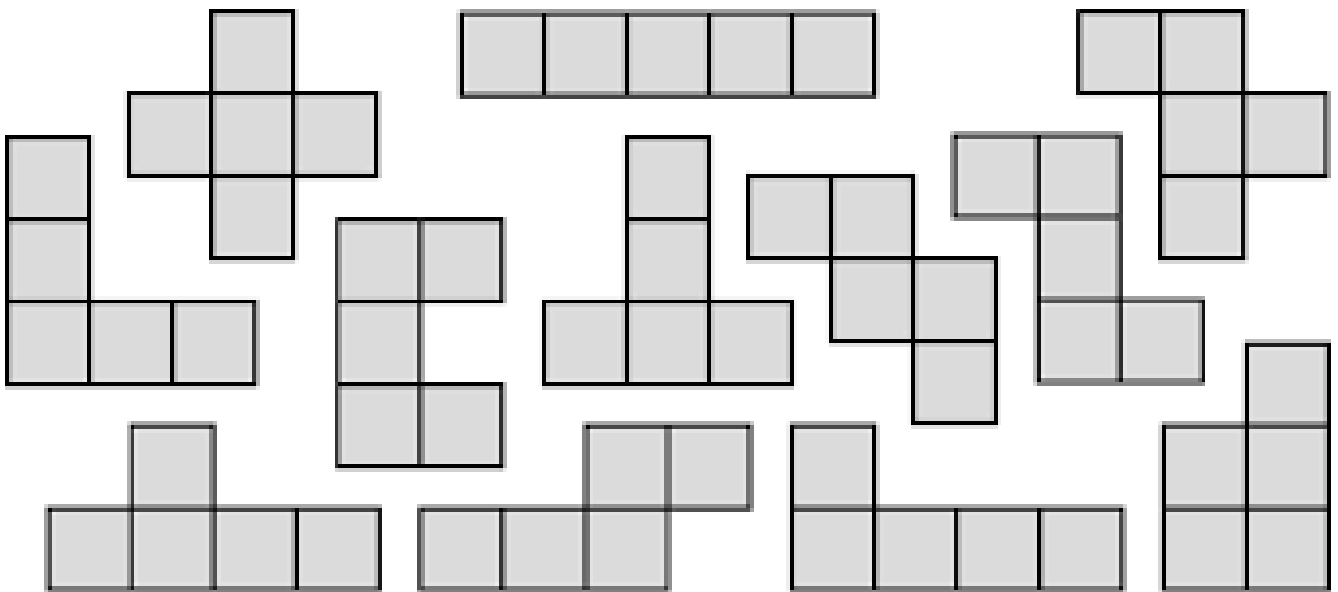
Have a family member write a number in one of the boxes (of your pentomino drawing).

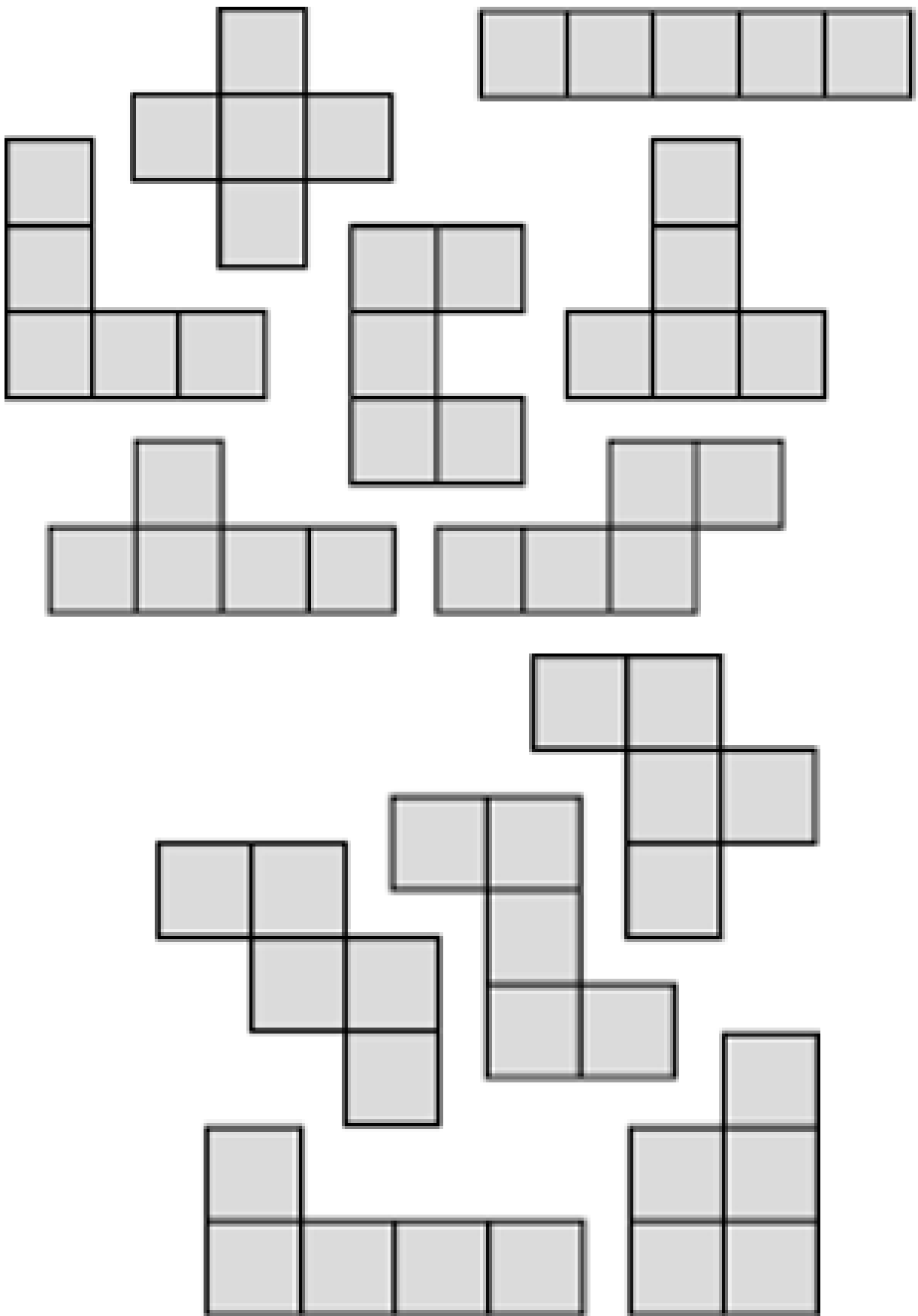
Your task is to fill-in all the other boxes. Imagine your piece on the hundreds chart. What numbers would fill in the blanks?

## Examples:



## Pentomino Shapes









# 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

**Instructions:**

Keep a tally of how many of each different item of clothing you have.

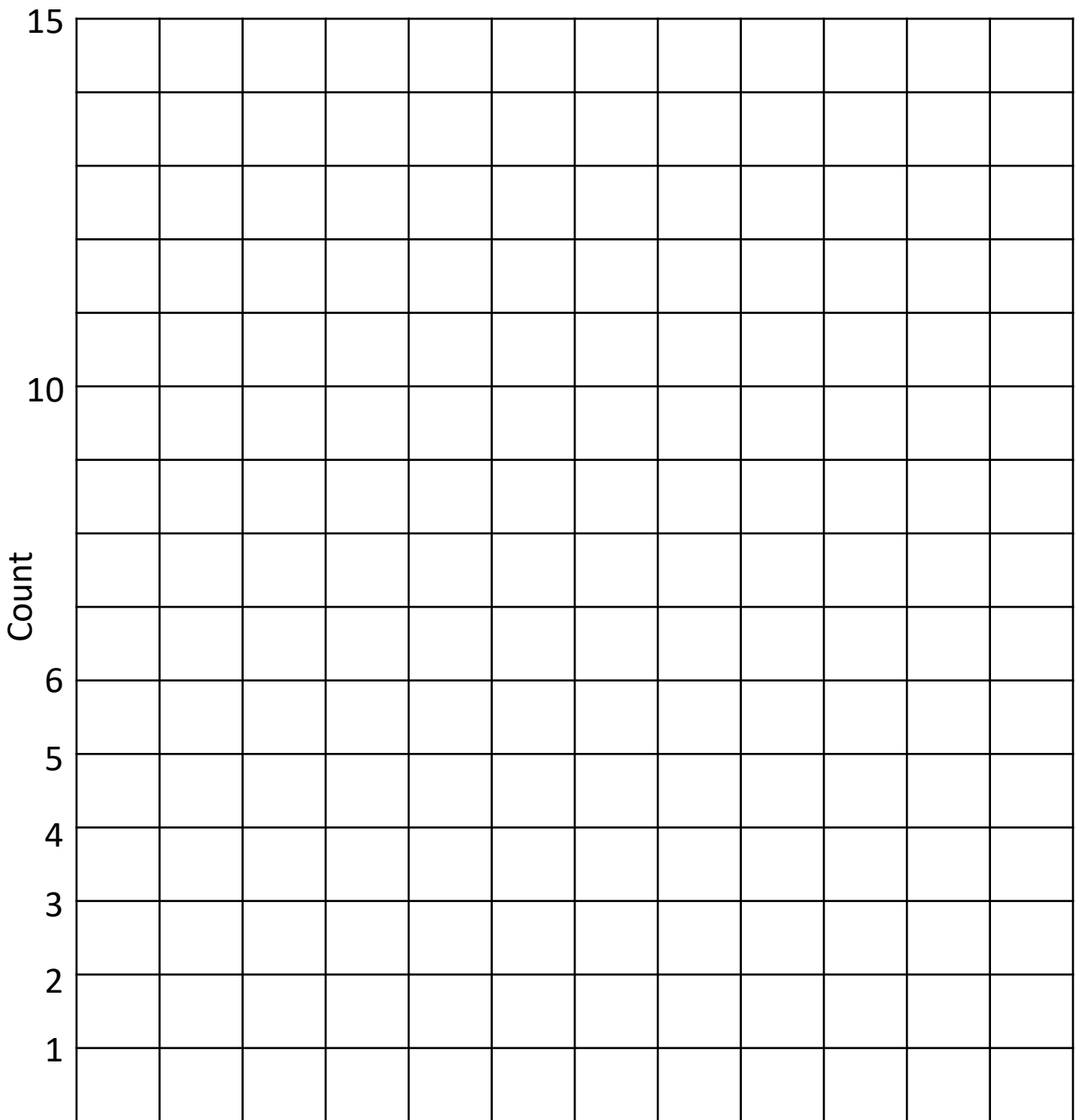
Answer the following questions based on your graph:

- ## Change it up:

[illegible]



Title: \_\_\_\_\_





# Rotating Spoons

From: [Home Connections Math Activities](#)  
[Grade 3: Geometry and Spatial Sense](#), Page 3

## Required Materials:

- 6 spoons (3 for each player)
- Direction cards (can be [printed/cut from here](#), or rewrite them on pieces of paper)

## Instructions:

1. Shuffle the cards and place them in a pile face down.
2. Place 3 spoons in front of each player so they look like this:



3. The goal of the game is to be the first player to rotate their spoons so that they all point up:



4. Take turns picking a card from the pile and doing the action indicated on the card. You may rotate any one of your spoons. Rotations are in a clockwise direction.
5. If all the cards in the pile are used, shuffle the cards again and place them face down.

## Questions to Ask:

What strategy did you use to play this game?

Would the outcome be different if you started with your spoons in a different position? Why do you think that?

What did you notice about the patterns of your rotations?

Why did you choose to rotate that spoon?

What action card are you hoping for? Why?

Quarter  
Turn

Half  
Turn

Three  
Quarter  
Turn



Quarter  
Turn

Half  
Turn

Three-  
Quarter  
Turn

Quarter  
Turn

Half  
Turn

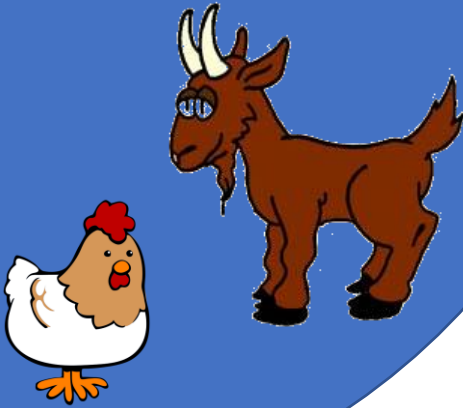
Three-  
Quarter  
Turn

Quarter  
Turn

Half  
Turn

Three-  
Quarter  
Turn





# Farmer Montague

<http://www.collectedny.org/mathmemos/page/2/>

Farmer Montague raises chickens and goats.

She is not sure how many she has of each animal, but she does know that she has 22 animals altogether.

She also knows that, altogether, her animals have 56 feet.

How many of each type of animal does Farmer Montague have?

How do you know? Show your thinking.
















# Favourite Zoo Animal

<https://www.eqao.com/en/assessments/primary-division/assessment-docs/g3-math-bklt-2015.pdf>

- 8 The pictograph below shows the results of Clark's survey about his friends' favourite zoo animals.

**Favourite Zoo Animal**

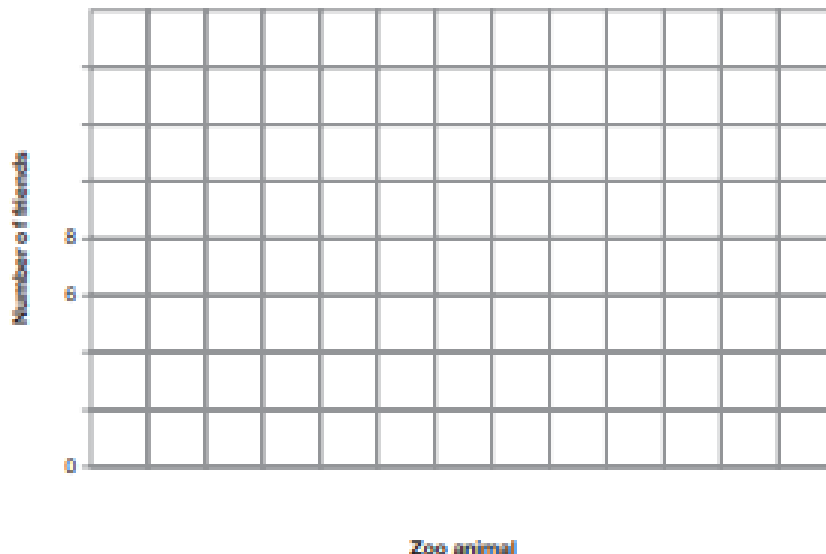
Animal	Number of friends
Monkey	     
Elephant	  
Penguin	 
Tiger	 

**Key**

Each  represents 2 friends.

Display and label Clark's data by completing the bar graph below. Complete the scale shown.

**Favourite Zoo Animal**



**Extend:** Can you create your own pictograph and bar graph about something you are interested in? Ask your family. If you connect virtually with others, ask them too!



We all have our favourite animals. Whether it's your pet dog, cat or maybe your horse. You might like butterflies, rabbits or lions.

For many First Nations Peoples animals also represent who we are, who our family is. Many call them "Clans."

Read the attached book to learn which are considered to be the clans of the Algonquin, people who many of us share their land.

## [The Six Clans](#)



# Find the Pattern Rule and Complete the Pattern

93, 85, 77, \_\_, \_\_, 53, \_\_, \_\_, ...

- ☐ How do you see the pattern changing?
- ☐ What are the missing numbers? How do you know?
- ☐ What would be the 11<sup>th</sup> term? How do you know?
- ☐ Can you find the 11<sup>th</sup> term another way?

## Sample Response (provided by EQAO)

<https://www.eqao.com/en/assessments/primary-division/Pages/example-assessment-materials-current-year.aspx>

This response demonstrates an accurate application of the procedures; correctly completes missing numbers in the pattern; correctly identifies the pattern rule (-8); and correctly determines the 11<sup>th</sup> term in the pattern (13) with work shown.

Zoe creates this pattern. It decreases by the same amount each time.  
Four numbers are missing.

93, 85, 77, 69, 61, 53, 45, 37, ...

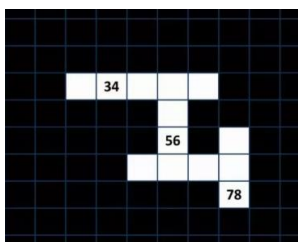
What is the pattern rule?

the pattern rule is -8

Fill in the four missing numbers.  
What is the 11th term in her pattern?  
Show your work.

29, 21, 13, ...

The 11th term in her pattern is 13.



# Maze Hundreds Chart



By Steve Wyborney

Instructions:

Go to [Steve Wyborney's Maze Hundreds Chart](#) website.

Scroll down until you see, "Click here to download *The Maze Hundreds Chart*."

*NOTE: Because this is a triggered PowerPoint document, it will need to be played in PowerPoint in order to have the interactivity shown in the video.*

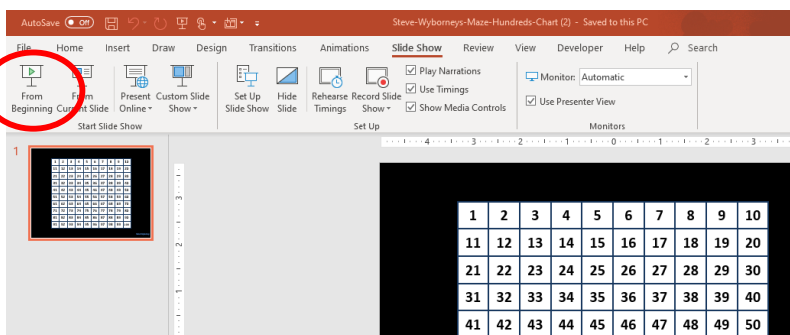
Click here to download [The Maze Hundreds Chart](#)

Update! The Follow-up Post is Ready: [Strategies for Using the Maze Hundreds Chart](#).

Open the file in PowerPoint.

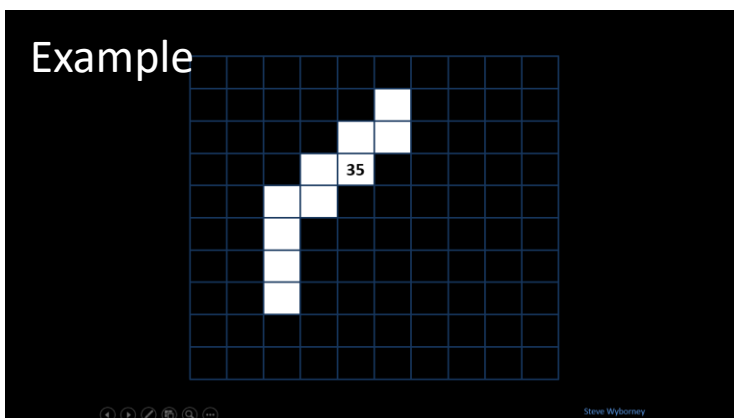
You will need to "play" slideshow.

You can click on any square and it turns white. Click again and the value appears.



Create patterns of white cells on the PowerPoint. Show one value in any of your white cells by clicking again. Can you work out what the other numbers are? How do you know? What strategies did you use to figure them out?

Example





# Grades 1 - 3 Curriculum Continuum Connections

Note: highlighted expectations are addressed in Menu H

	Grade 1	Grade 2	Grade 3
Process Skills	<input type="checkbox"/> Problem Solving <input type="checkbox"/> Reasoning and Proving	<input type="checkbox"/> Reflecting <input type="checkbox"/> Selecting Tools and Computational Strategies <input type="checkbox"/> Connecting	<input type="checkbox"/> Representing <input type="checkbox"/> Communicating
Number Sense and Numeration	<input type="checkbox"/> read, represent, compare, and order whole numbers to 50, and use concrete materials to investigate fractions and money amounts <input type="checkbox"/> demonstrate an understanding of magnitude by counting forward to 100 and backwards from 20; <input type="checkbox"/> solve problems involving the addition and subtraction of single-digit whole numbers, using a variety of strategies.	<input type="checkbox"/> read, represent, compare, and order whole numbers to 100, and use concrete materials to represent fractions and money amounts to 100c <input type="checkbox"/> demonstrate an understanding of magnitude by counting forward to 200 and backwards from 50, using multiples of various numbers as starting points <input type="checkbox"/> solve problems involving the addition and subtraction of one- and two-digit whole numbers, using a variety of strategies, and investigate multiplication and division.	<input type="checkbox"/> read, represent, compare, and order whole numbers to 1000, and use concrete materials to represent fractions and money amounts to \$10 <input type="checkbox"/> demonstrate an understanding of magnitude by counting forward and backwards by various numbers and from various starting points <input type="checkbox"/> solve problems involving the addition and subtraction of single- and multi-digit whole numbers, using a variety of strategies, and demonstrate an understanding of multiplication and division.
Patterning and Algebra	<input type="checkbox"/> identify, describe, extend, and create repeating patterns <input type="checkbox"/> demonstrate an understanding of the concept of equality, using concrete materials and addition and subtraction to 10	<input type="checkbox"/> identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns <input type="checkbox"/> demonstrate an understanding of the concept of equality between pairs of expressions, using concrete materials, symbols, and addition and subtraction to 18	<input type="checkbox"/> describe, extend, and create a variety of numeric patterns and geometric patterns <input type="checkbox"/> demonstrate an understanding of equality between pairs of expressions, using addition and subtraction of one- and two-digit numbers
Measurement	<input type="checkbox"/> estimate, measure, and describe length, area, mass, capacity, time, and temperature, using non-standard units of the same size <input type="checkbox"/> compare, describe, and order objects, using attributes measured in non-standard units	<input type="checkbox"/> estimate, measure, and record length, perimeter, area, mass, capacity, time, and temperature, using non-standard units and standard units <input type="checkbox"/> compare, describe, and order objects, using attributes measured in non-standard units and standard units	<input type="checkbox"/> estimate, measure, and record length, perimeter, area, mass, capacity, time, and temperature, using standard units; <input type="checkbox"/> compare, describe, and order objects, using attributes measured in standard units
Geometry and Spatial Sense	<input type="checkbox"/> identify common two-dimensional shapes and three-dimensional figures and sort and classify them by their attributes <input type="checkbox"/> compose and decompose common two-dimensional shapes and three-dimensional figures <input type="checkbox"/> describe the relative locations of objects using positional language	<input type="checkbox"/> identify two-dimensional shapes and three-dimensional figures and sort and classify them by their geometric properties <input type="checkbox"/> compose and decompose two-dimensional shapes and three-dimensional figures <input type="checkbox"/> describe and represent the relative locations of objects, and represent objects on a map	<input type="checkbox"/> compare two-dimensional shapes and three-dimensional figures and sort them by their geometric properties <input type="checkbox"/> describe relationships between two-dimensional shapes, and between two-dimensional shapes and three-dimensional figures <input type="checkbox"/> identify and describe the locations and movements of shapes and objects.
Data Management and Probability	<input type="checkbox"/> collect and organize categorical primary data and display the data using concrete graphs and pictographs without regard to the order of labels on the horizontal axis <input type="checkbox"/> read and describe primary data presented in concrete graphs and pictographs <input type="checkbox"/> describe the likelihood that everyday events will happen	<input type="checkbox"/> collect and organize categorical or discrete primary data and display the data, using tally charts, concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers, with labels ordered appropriately along horizontal axes, as needed <input type="checkbox"/> read and describe primary data presented in tally charts, concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers <input type="checkbox"/> describe probability in everyday situations and simple games	<input type="checkbox"/> collect and organize categorical or discrete primary data and display the data using charts and graphs, including vertical and horizontal bar graphs, with labels ordered appropriately along horizontal axes, as needed <input type="checkbox"/> read, describe, and interpret primary data presented in charts and graphs, including vertical and horizontal bar graphs <input type="checkbox"/> predict and investigate the frequency of a specific outcome in a simple probability experiment