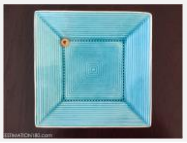
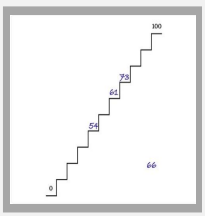
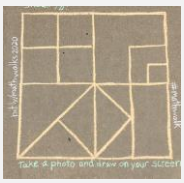
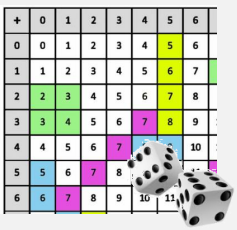
Math 1-3 Activities Menu G

Curriculum Connections

Creating Futures, Leading and Learning for All

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

	A	B	C	D	E
Estimation	What is the capacity of the can? 	How long is the entire roll of paper towel? 	How many cereal circles will fit along the perimeter of the inside square? 	How many cereal circles to cover the area of the dashed square? 	Is this temperature hot, cold, or something else? What is the temperature outside? Compare. 
Talking about Math	How Many Cubes? 	When is 100 of something small? When is 100 of something big? Explain your reasoning.	How Many Socks? 	How Many Strawberries? 	How Many? 
	Click on the link above the image for prompts and questions to ask.				
Activities / Games	Fill the Stairs 	PIG: See who can get a score closest to 100. 	Lego Brain Puzzles 	How can you colour $\frac{1}{4}$? 	Block it! Addition 
Problems	Trading Stickers 	Math Riddle! Two coins make 30 cents. One of them is not a quarter. What are the coins?  Solution	I have some coins worth $1.17. What could the coins be? What if I had 6 coins? 	Pet Shop 2nd Grade Favorite Pets Pet / Number of Kids Fish 17 Birds 8 Cats 45 Dogs 62	Amy and her friends are making snow people. They use 2 stones for the eyes, 5 for the mouth, and 4 as buttons. How many stones do they need for 7 snow people? How do you know? 
Technology	Telling Time What time does the little aviator's flight leave?  	Perimeter Climber Help the explorer capture the coin, without falling down the ladder! 	Make Ten Combine the numbers to make 10. Don't go over 10 in any square! 	Area Climber Help the explorer capture the coin, without falling down the ladder! 	Math Mine Have fun digging into a math mine by solving multiplication and division problems! 

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!

UPPER CANADA District School Board

Explanatory Notes:

LEARN AT HOME CHOICE BOARDS FOR PARENTS AND EDUCATORS

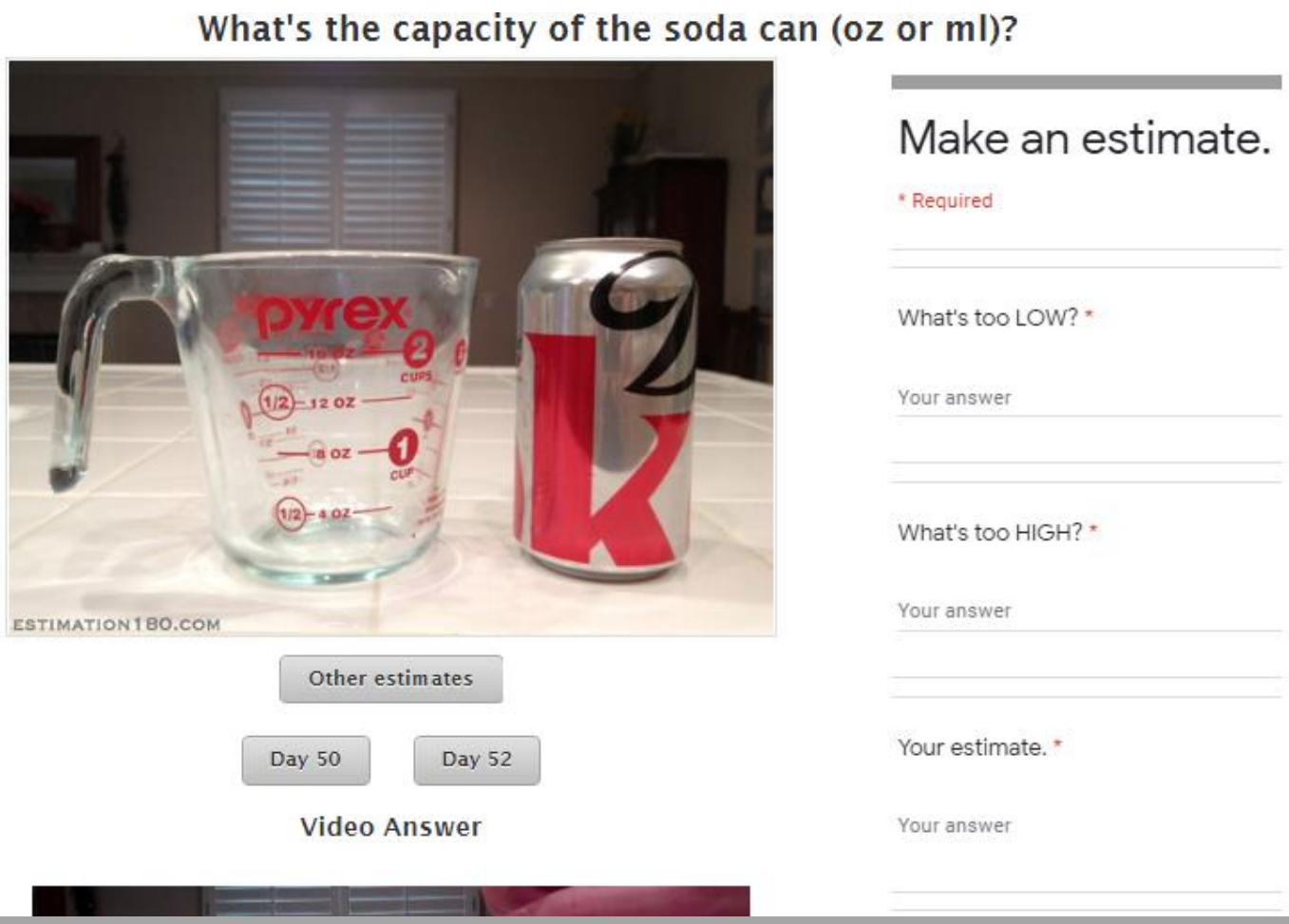
Creating Futures, Leading and Learning for All

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.

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.



Estimation 180 - Day 51

http://www.estimation180.com/

How long is the entire full roll of paper towel?

Answer

Other estimates

Day 32 Day 34

Make an estimate.

* Required

What's too LOW? *

Your answer

What's too HIGH? *

Your answer

Your estimate. *

Your answer

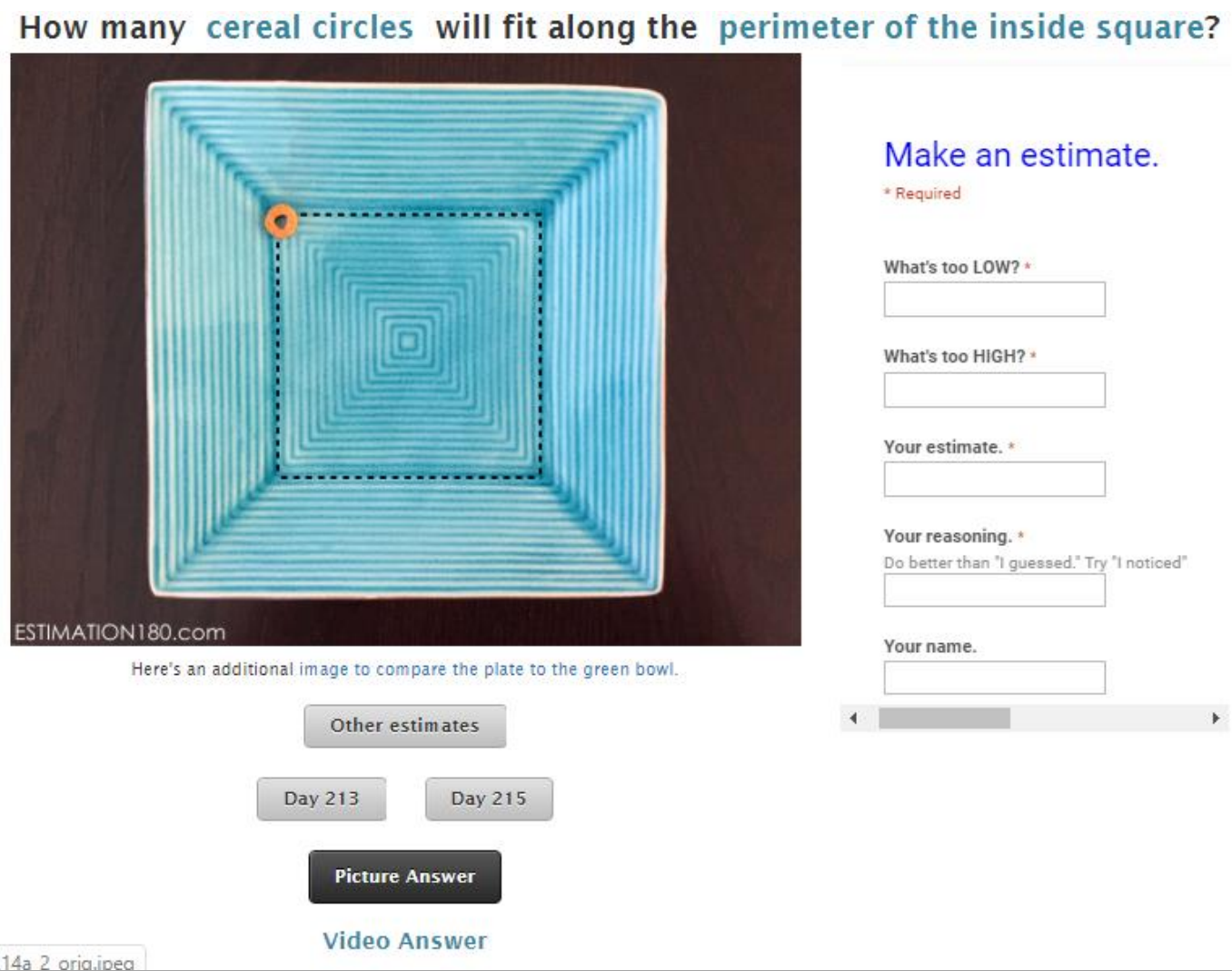
Your reasoning. *

Do better than "I guessed."

Your answer

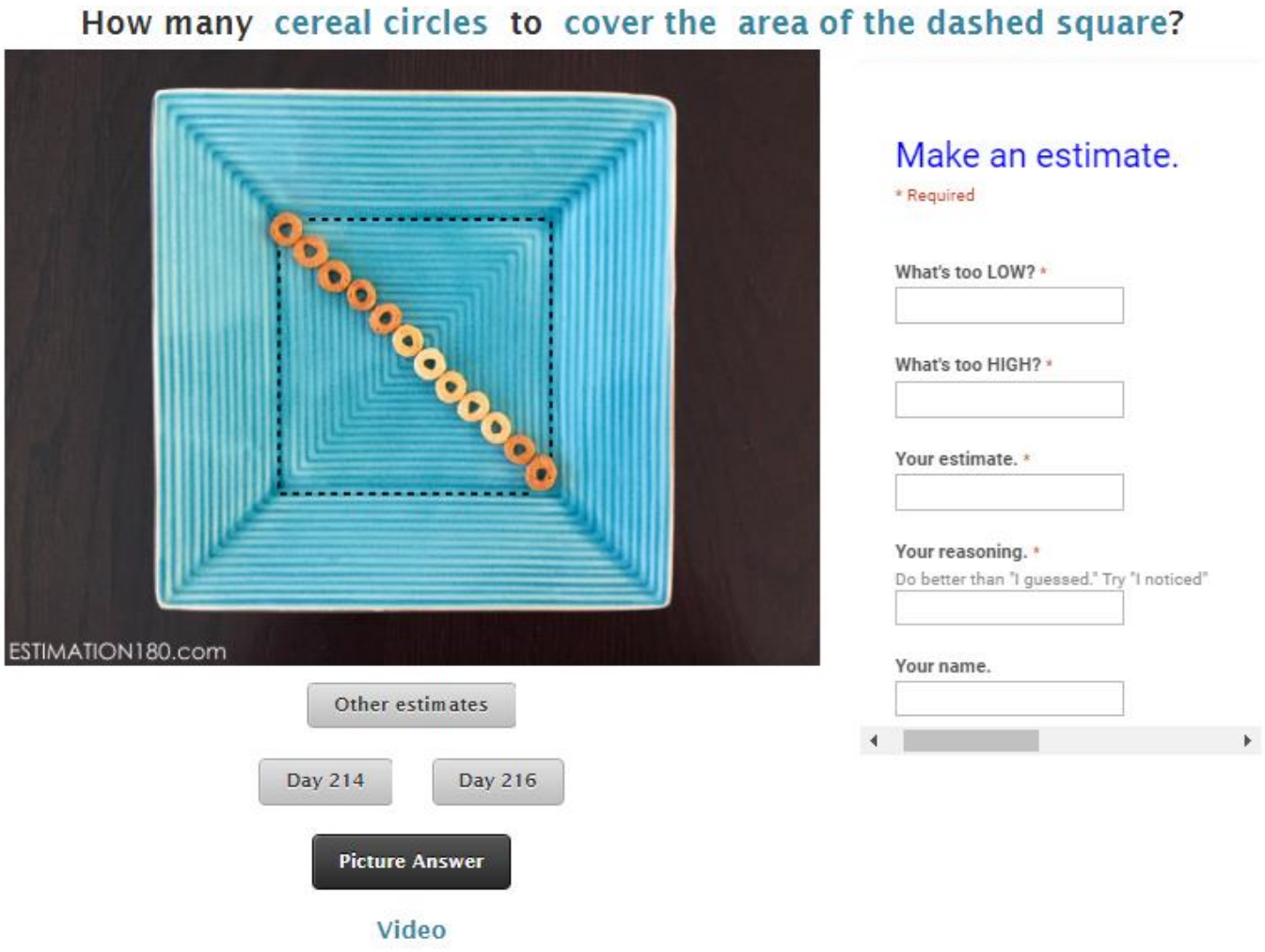
Estimation 180 - Day 33

http://www.estimation180.com/



Estimation 180 - Day 214

http://www.estimation180.com/



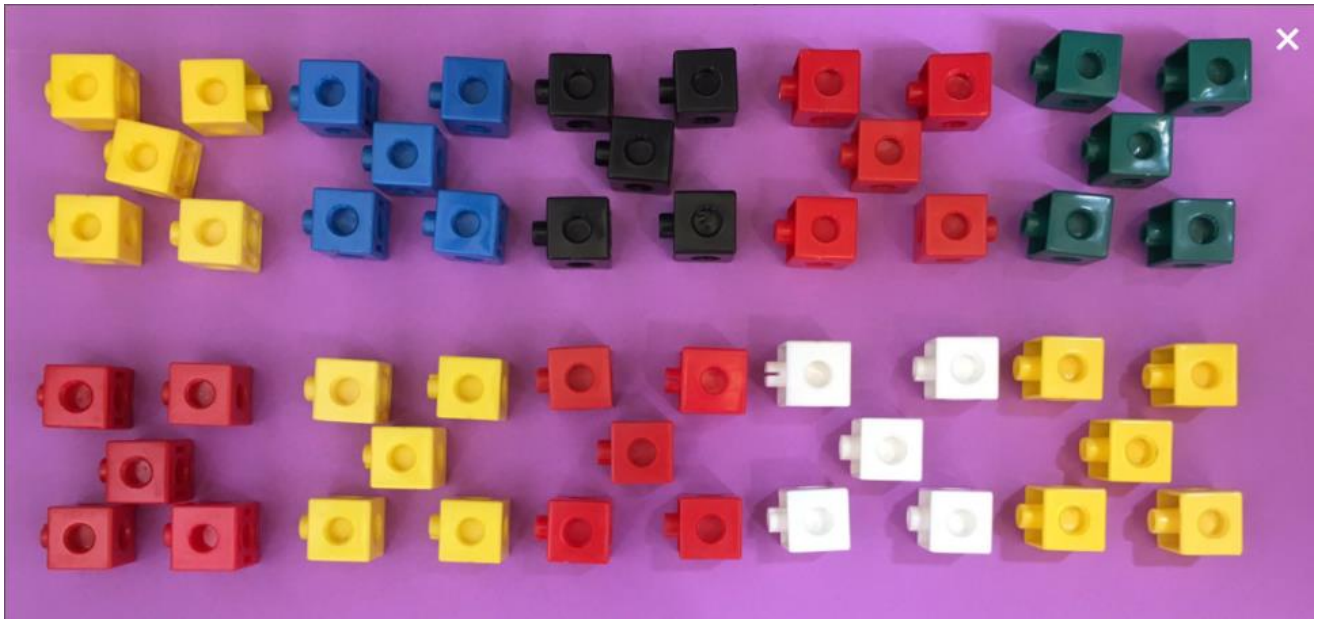
Estimation 180 - Day 215

http://www.estimation180.com/

Is this temperature hot, cold, or something else? What is the temperature outside? Is it colder or warmer? How do you know?

Estimation 180 - Uploads

http://www.estimation180.com/uploads/1/3/8/8/13883834/6820465_orig.jpeg?374



How many Cubes?

From / De : Charlotte D Sharpe (@getting_sharper)
http://ntimages.weebly.com/suites--strings.html

- How many unifix cubes are there?
- How do you know?
- Is there another strategy you could use to find out how many cubes there are?

How many Socks?

http://www.codewod.com/2014/02/real-life-sock-sorting.html

- How many socks are there?
- How do you know?
- How many pairs of socks are there?
- Is there another strategy you could use to find out how many socks there are?
- Is there something in your house you can count by pairs?

How many Strawberries?

From / De : Chrissy Newell (@MrsNewell22)
http://ntimages.weebly.com/suites--strings.html

How many strawberries are there?
How do you know?
Is there another way you could find the solution?

How many strawberries are there?

How do you see them?

Is there another way you could find the solution?

How Many?

Janice Novakowski (@jnovakowski38)
http://ntimages.weebly.com/photos.html

- How many candles are there?
- How do you know?
- How many spaces are empty? How do you know?
- Is there another strategy you could use to find out how many empty spaces there are?
- If the box was full, how many candles would there be? How do you know?

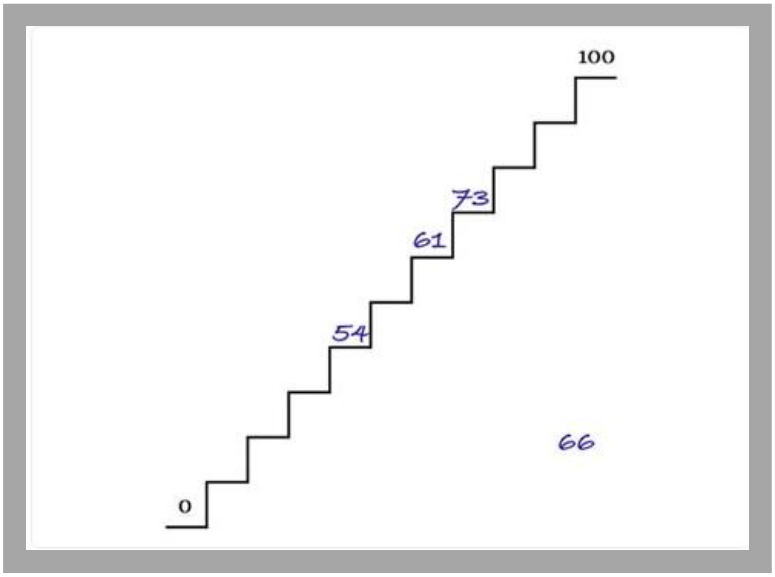
Fill the Stairs

Math for Love

https://mathforlove.com/lesson/fill-the-stairs/

Required materials:
A deck of cards with the face cards removed.
Alternatively, you can use two ten-sided dice if you have them.

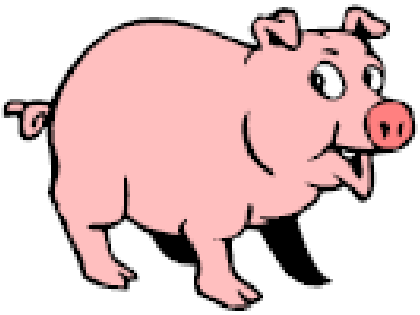
Instructions:
Draw a staircase with 11 steps. Place zero on the bottom step and 100 on the top step.
Place the shuffled cards in the middle.
Flip over two cards, the first is the tens digit, the second is the ones digit. If you flip a ten, it counts as a zero.



Everyone then places the number that was flipped wherever they choose on the staircase. The only rule is that the numbers higher-up on the stairs must be greater than all the numbers below. If a player can't use a number, it gets written under the stairs as a "discard."
The winner is the first person to fill their stairs.

Questions to ask:
Where are you going to put that number? Why there?
What numbers are you hoping for on the next flip?
How do you know this number is bigger/smaller than that one?

Change it up:
Work cooperatively to fill the stairs with as few wasted moves as possible.
Let the person flipping the cards decide which is the tens digit and which is the ones digit.
Place from 0 to 1000 and flip three cards instead of 2.
Place with a set of 5 stairs, from 0 to 10, and flip only one card (remove the tens from the deck).



PIG

Players: 2

Materials: 1 or 2 dice, 120 chart (optional)

Object: Be the first player to reach 100

One Die Version: On a turn, a player can roll repeatedly until one of two things happens (1) the player rolls a 1 or (2) the player chooses to hold (stop rolling). Each number rolled is added to the player's total. If a 1 is rolled, all points for that turn are lost!

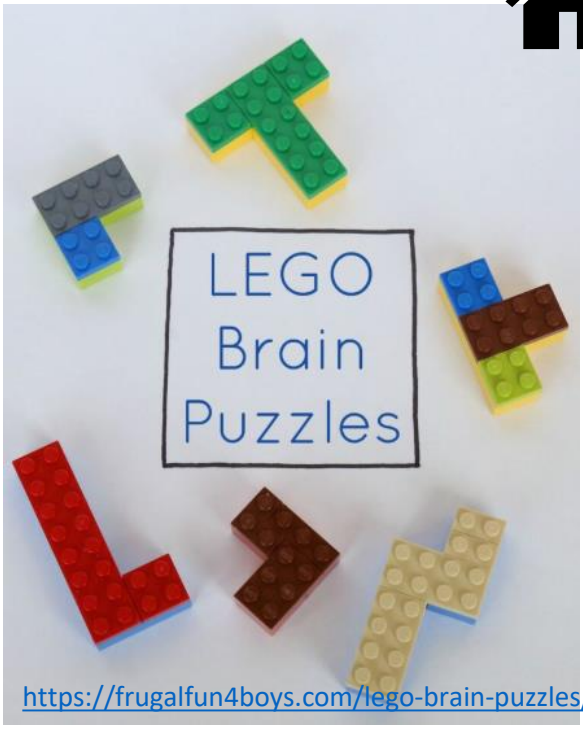
Scoring examples:

1. Suzy rolls a 4 and decides to continue. She then rolls 5 more times (3, 4, 2, 6, 1). Because she rolled a 1, her turn ends and she receives no points for the numbers rolled.
2. Marcus rolls a 6 and decides to continue. He rolls 3 more times (4, 3, 5) and decides to hold. His score for the round is 18 (6 + 4 + 3 + 5 = 18).

Two Dice Version: Two dice are rolled. If a single 1 is rolled on either dice, the turn ends and all points are lost. If two 1s are rolled on a single turn, the player scores 25 points. Doubles, for example a 2 and a 2, are worth double points (4 x 2 = 8).

https://www.mathcoachscorner.com/2013/05/math-games-with-a-pair-of-dice/

Lego Brain Puzzles

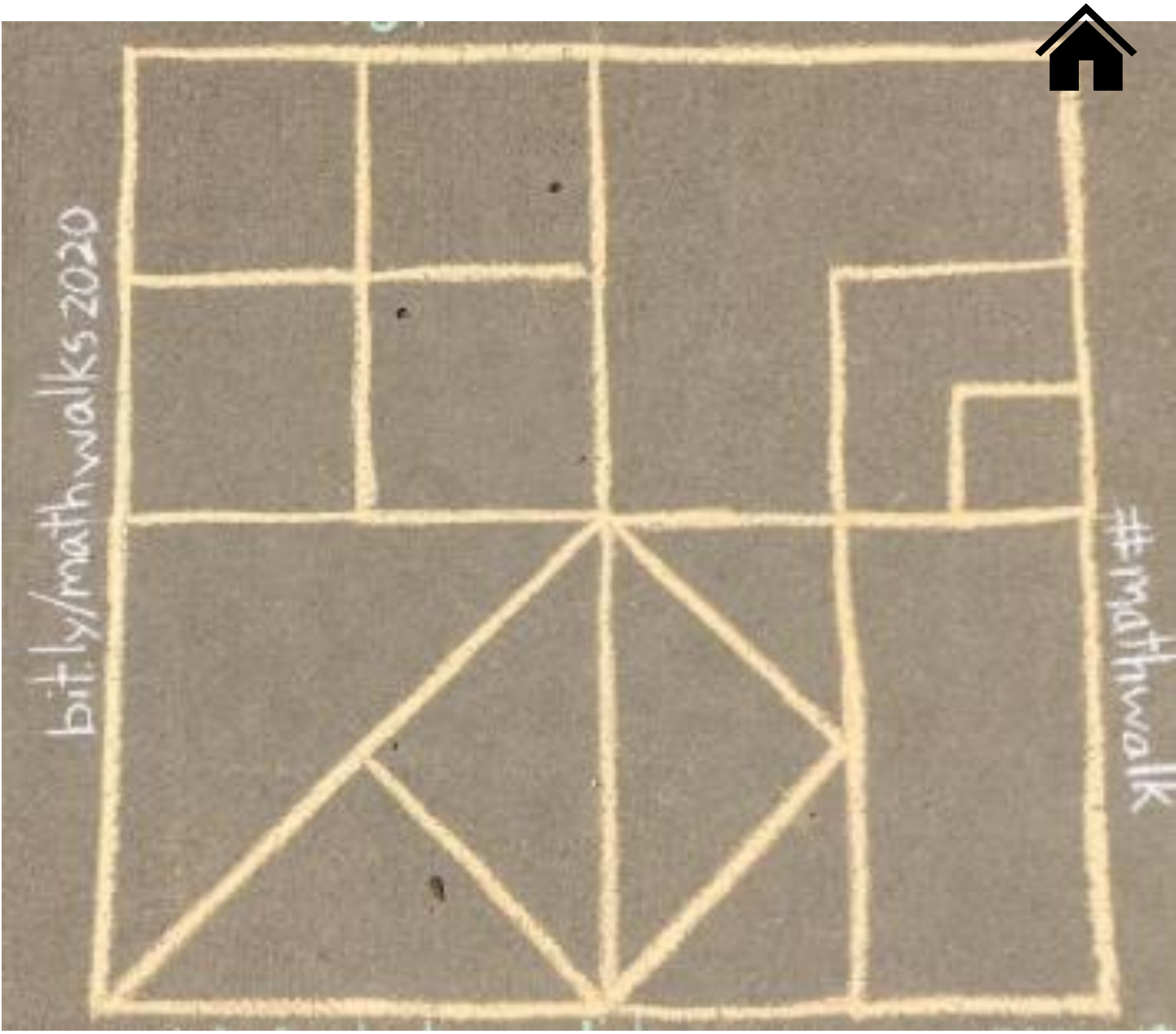


https://frugalfun4boys.com/lego-brain-puzzles/

- Build a puzzle that makes a 10x10 square. The pieces can be any shape. See if others can solve your puzzle.
- The puzzle pieces are made out of basic bricks, with a layer of flat bricks on top to attach them. They're easy to build because you can just add the flat pieces where you want them.
- Can you explain how to solve your problem? Use positional language like above, below, right, and left.
- What shapes did you make?
- How did you make the different shapes? What shapes did you combine?

Tips and Ideas for Extending the Learning:

- Trace around the edges of the puzzle on paper so the person solving can see what the completed shape should be.
- What other puzzle shapes can you build besides squares?
- Explore – does your puzzle have more than one possible solution?



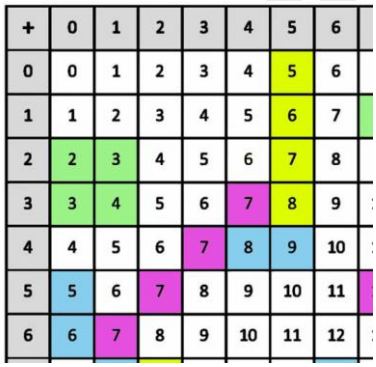
How many different ways can you shade $\frac{1}{4}$?

How many different ways can you shade $\frac{1}{2}$?

Can you create a problem of your own? Share it outside and see if others can solve it!

Block it! Addition

https://mathcurious.com/2020/04/18/block-it-addition/



+	0	1	2	3	4	5	6
0	0	1	2	3	4	5	6
1	1	2	3	4	5	6	7
2	2	3	4	5	6	7	8
3	3	4	5	6	7	8	9
4	4	5	6	7	8	9	10
5	5	6	7	8	9	10	11
6	6	7	8	9	10	11	12

Required materials:

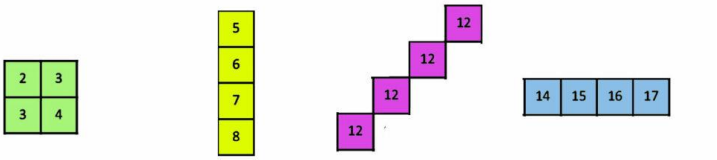
- 2 Dice
- Colour pencils (different colour for each player)
- For this game, we will use the addition table.
- Game board – found here or create your own using pencil and paper.

Change it up:

- You can use a different size table depending on the level your child or students need to practice.
- 2 6-face dice with one side changed to 0 to practice addition facts to 10
- 2 6-face dice to practice addition facts to 12
- 2 10-face dice to practice addition facts to 20
- A deck of cards with Jacks being 11, Queens 12, and Kings 0 for addition facts to 24

Instructions:

- The youngest player goes first.
- Once they roll the dice, the players add their numbers, find the sum on the table, and colour that tile. For example, if they rolled a 6 and a 5 they look for 11.
- They may colour any 11 on the table, since 5+6=11 but also 4+7=11, and so on. This is a neat way to remember all the different combinations to make 11.
- The players try to colour blocks. A block is a group of four connected tiles horizontally, vertically, diagonally, or forming a bigger square.



The goal is to get the most blocks before the tiles finish (at some point there will not be any sets of 4 left). In the end, the players count their blocks and see who is the winner. The players can draw a line with a pencil on each block to make sure they are not double-counting the same tiles.

If you are playing with a small table (addition to 10 or 12) and with younger children (who may not have the patience to play a long game), **the goal can be the first to get a block.** Once a player gets a block the game ends. You can play 4 or 2 games on one print-out.

Strategy

The players need to choose the sum on the table that helps them get a "block." They also need to block their opponents from getting a 4 block by coloring the tiles on their way. **The players may not colour over already coloured tiles.**

+	0	1	2	3	4	5	6
0	0	1	2	3	4	5	6
1	1	2	3	4	5	6	7
2	2	3	4	5	6	7	8
3	3	4	5	6	7	8	9
4	4	5	6	7	8	9	10
5	5	6	7	8	9	10	11
6	6	7	8	9	10	11	12

Sample Game Boards for Block it! Addition

+	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12	13
2	2	3	4	5	6	7	8	9	10	11	12	13	14
3	3	4	5	6	7	8	9	10	11	12	13	14	15
4	4	5	6	7	8	9	10	11	12	13	14	15	16
5	5	6	7	8	9	10	11	12	13	14	15	16	17
6	6	7	8	9	10	11	12	13	14	15	16	17	18
7	7	8	9	10	11	12	13	14	15	16	17	18	19
8	8	9	10	11	12	13	14	15	16	17	18	19	20
9	9	10	11	12	13	14	15	16	17	18	19	20	21
10	10	11	12	13	14	15	16	17	18	19	20	21	22

Trading Stickers

Kevin has earned 10 stickers for reading books. He can trade the stickers for items in the class store.

- 1 sticker - bookmark
- 2 stickers - eraser
- 3 stickers - pencil
- 4 stickers - notepad

What are some of the combinations Kevin could get with his 10 stickers?

Math Riddle!

Two coins make 30 cents.
One of them is not a quarter.
What are the coins?

a quarter & a nickel

(The nickel is not a quarter!)

2nd Grade Favorite Pets	
Pet	Number of Kids
Fish	17
Birds	8
Cats	45
Dogs	62

Pet Shop

https://www.mathlearningcenter.org/sites/default/files/pdfs/B2PB-B_0110w_0.pdf Page 149

The kids in Ms. Nelson's class did a survey of all the second graders about their favourite pets. Use their chart to help answer the questions below.

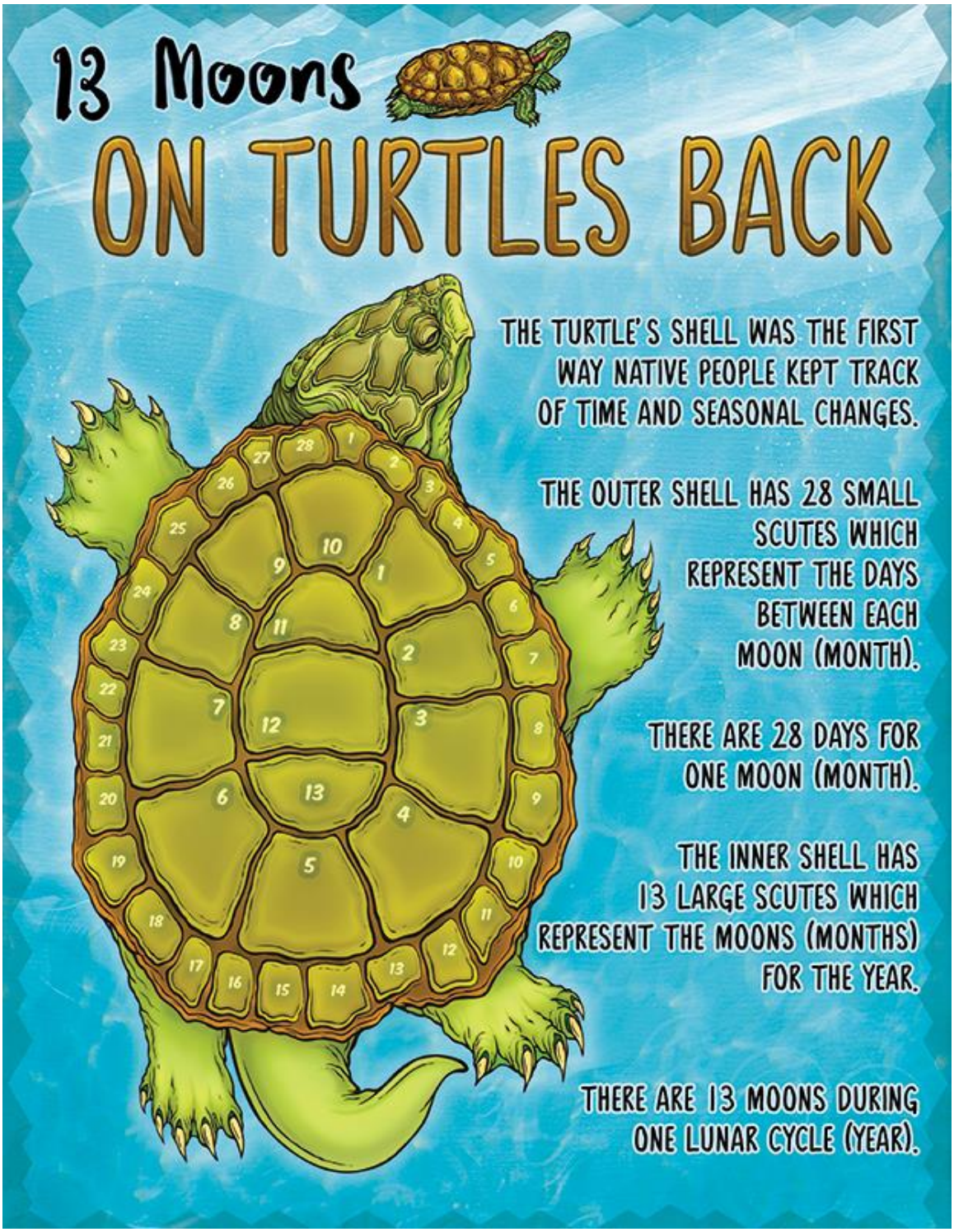
a) How many more kids like fish than birds the best? How do you know?

b) How many more kids like dogs than cats the best?

c) How many second graders are there?

Knowing the time can be very important. Indigenous peoples all around the world had different ways of telling time.

See the picture below to see how some First Nations Peoples around here used the back of a turtle to tell time.



Grades 1 -3 Curriculum Continuum Connections

Note: highlighted expectations are addressed in Menu G

	Grade 1	Grade 2	Grade 3
Process Skills	❑ Problem Solving ❑ Reasoning and Proving	❑ Reflecting ❑ Selecting Tools and Computational Strategies ❑ Connecting	❑ Representing ❑ Communicating
Number Sense and Numeration	❒ read, represent, compare, and order whole numbers to 50, and use concrete materials to investigate fractions and money amounts ❒ demonstrate an understanding of magnitude by counting forward to 100 and backwards from 20; ❒ solve problems involving the addition and subtraction of single-digit whole numbers, using a variety of strategies.	❒ read, represent, compare, and order whole numbers to 100, and use concrete materials to represent fractions and money amounts to 100¢ ❒ demonstrate an understanding of magnitude by counting forward to 200 and backwards from 50, using multiples of various numbers as starting points ❒ solve problems involving the addition and subtraction of one- and two-digit whole numbers, using a variety of strategies, and investigate multiplication and division.	❑ read, represent, compare, and order whole numbers to 1000, and use concrete materials to represent fractions and money amounts to $10 ❑ demonstrate an understanding of magnitude by counting forward and backwards by various numbers and from various starting points ❑ 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	❒ identify, describe, extend, and create repeating patterns ❒ demonstrate an understanding of the concept of equality, using concrete materials and addition and subtraction to 10	❒ identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns ❒ demonstrate an understanding of the concept of equality between pairs of expressions, using concrete materials, symbols, and addition and subtraction to 18	❒ describe, extend, and create a variety of numeric patterns and geometric patterns ❒ demonstrate an understanding of equality between pairs of expressions, using addition and subtraction of one- and two-digit numbers
Measurement	❒ estimate, measure, and describe length, area, mass, capacity, time, and temperature, using non-standard units of the same size ❒ compare, describe, and order objects, using attributes measured in non-standard units	❒ estimate, measure, and record length, perimeter, area, mass, capacity, time, and temperature, using non-standard units and standard units ❒ compare, describe, and order objects, using attributes measured in non-standard units and standard units	❒ estimate, measure, and record length, perimeter, area, mass, capacity, time, and temperature, using standard units; ❒ compare, describe, and order objects, using attributes measured in standard units
Geometry and Spatial Sense	❒ identify common two-dimensional shapes and three-dimensional figures and sort and classify them by their attributes ❒ compose and decompose common two-dimensional shapes and three-dimensional figures ❒ describe the relative locations of objects using positional language	❒ identify two-dimensional shapes and three-dimensional figures and sort and classify them by their geometric properties ❒ compose and decompose two-dimensional shapes and three-dimensional figures ❒ describe and represent the relative locations of objects, and represent objects on a map	❒ compare two-dimensional shapes and three-dimensional figures and sort them by their geometric properties ❒ describe relationships between two-dimensional shapes, and between two-dimensional shapes and three-dimensional figures ❒ identify and describe the locations and movements of shapes and objects.
Data Management and Probability	❒ 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 ❒ read and describe primary data presented in concrete graphs and pictographs ❒ describe the likelihood that everyday events will happen	❒ 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 ❒ read and describe primary data presented in tally charts, concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers ❒ describe probability in everyday situations and simple games	❒ 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 ❒ read, describe, and interpret primary data presented in charts and graphs, including vertical and horizontal bar graphs ❒ predict and investigate the frequency of a specific outcome in a simple probability experiment