Math 1-3 Activities Menu D

[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.

Estimation

A

Which ribbon would wrap around the pumpkin? How do you know?

B–D

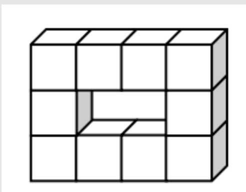
Design a workout! How long will it take to complete? Choose three number cards from a deck. Jump, hop on each foot, stretch to touch your toes, and more…based on the number shown on each card. Repeat. Aim to increase your workout each day by a few more minutes!

E

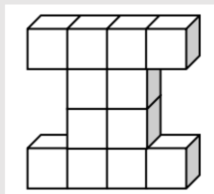
One lap of a track is 400m. How long might you take to travel one lap? Two laps? Half lap? Try it!

Talking about Math

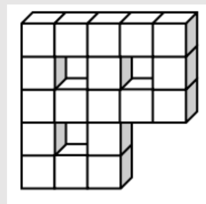
A



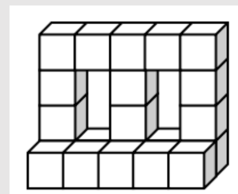
B



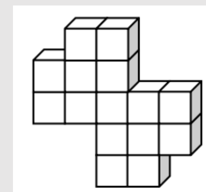
C



D



E

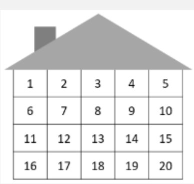


How many Unit Cubes make up the figure? Click here for a sample. Click the image for colouring pages.
Cube Conversations are created by Steve Wyborney You can find more here.

Activities / Games

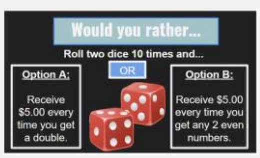
A

Games with a Deck of Cards
Get Out of My House



B

Would You Rather?



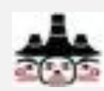
C

Certain, Likely, Unlikely and Impossible

D

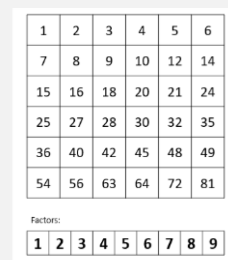
Heads or Tails?

Flips two coins, what are the chances of winning if you get two tails.



E

The Product Game



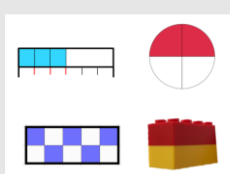
Problems

A

Go for a hike! Collect a variety of leaves along the  way. What types of trees do they come from? Make a pictograph to represent your leaves.

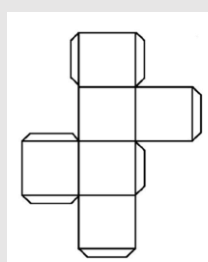
B

Same but Different



C

Create a 3D Figure

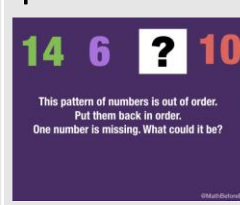


D

Muffin Tin Math

E

What could the pattern be?



Technology

A

Probability Games for Kids

B

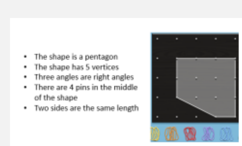
How Many Blocks?

C

Diamond Drop

D

Geoboard Gems



E

Pattern Block Challenge

 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

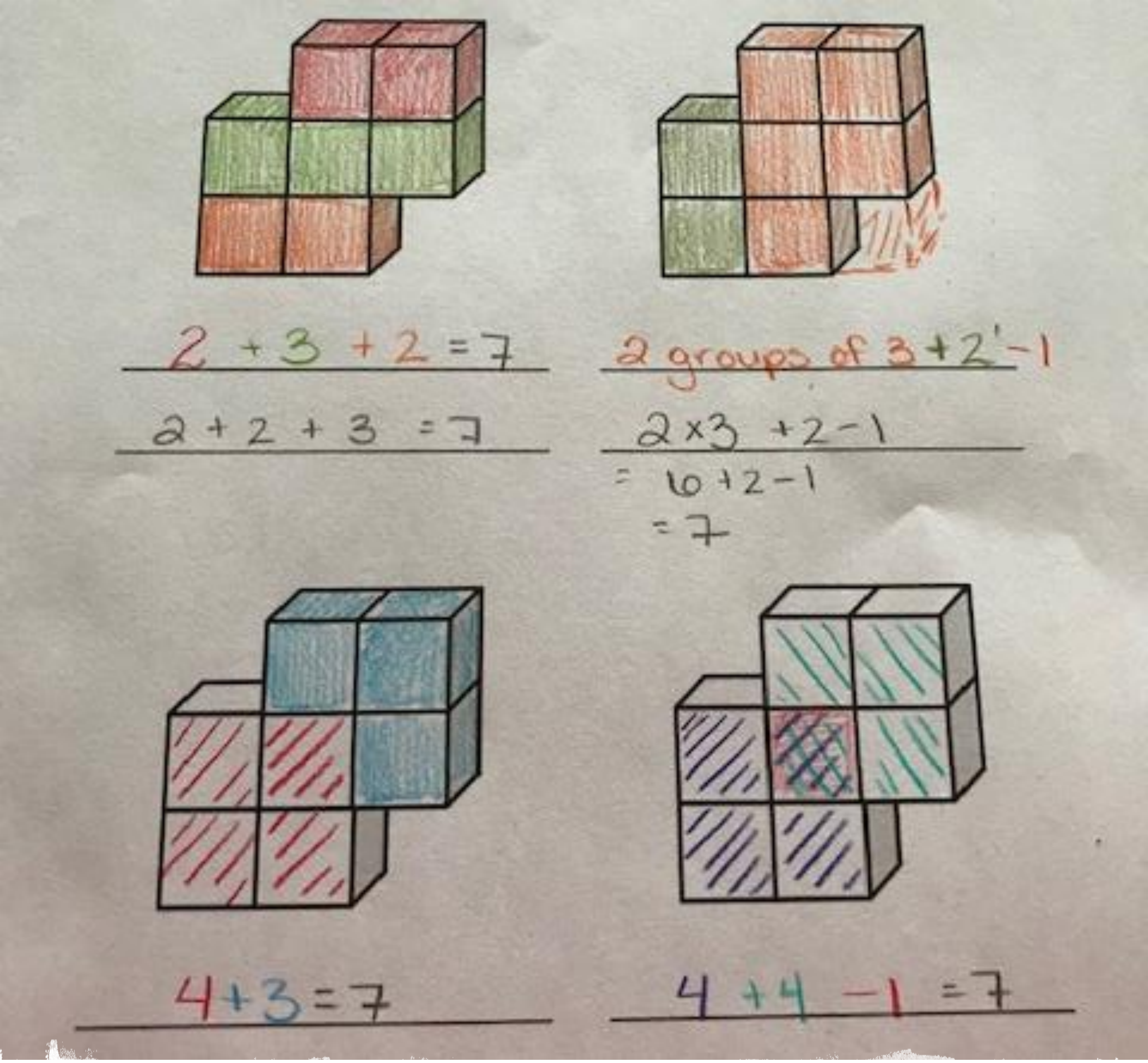
Creating Futures, Leading and Learning for All

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.



Cube Conversations Overview

The purpose of this activity is getting students to realize that numbers can be composed and decomposed in many different ways.

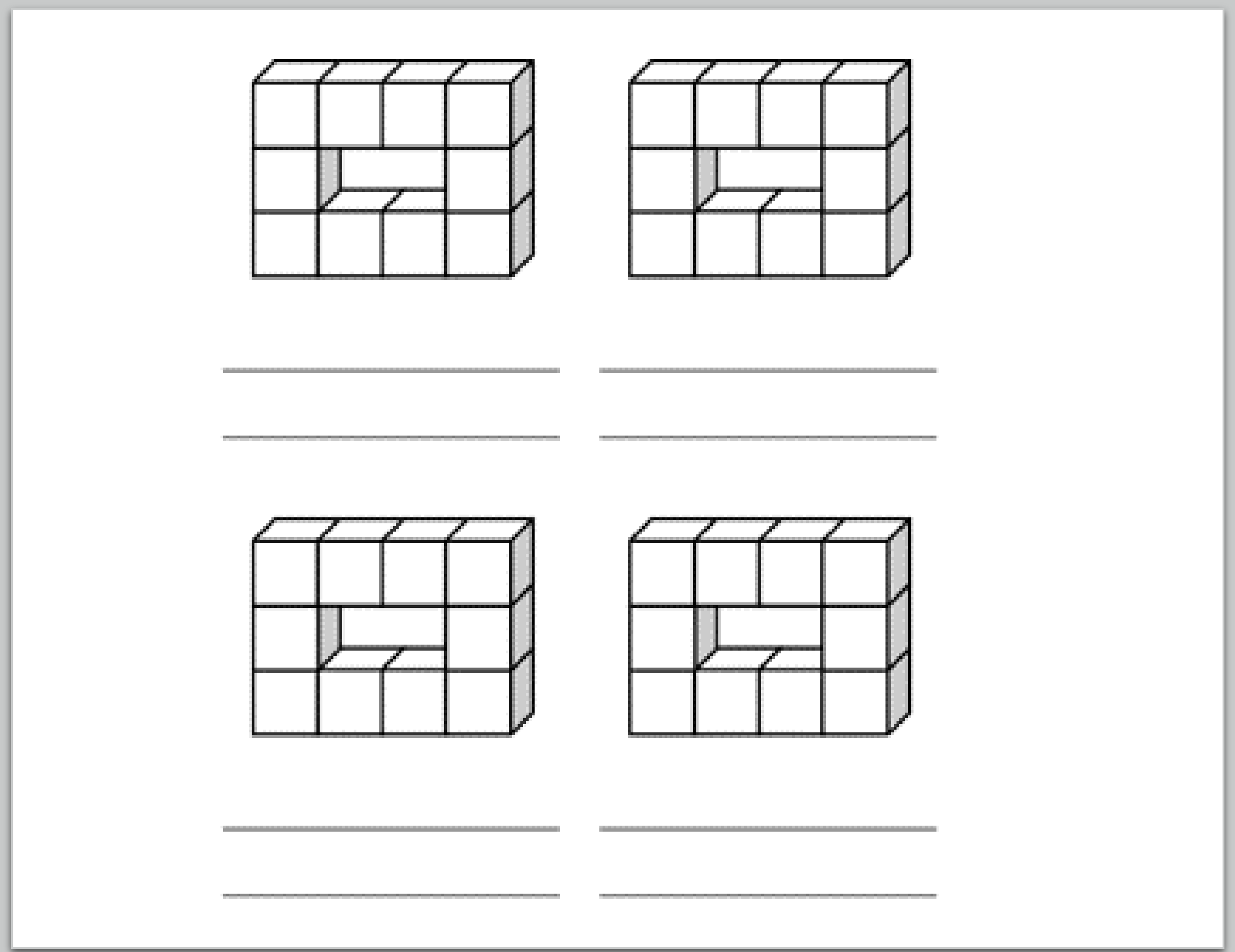
The prompts we ask follow:

- How many unit cubes make up this structure? Explain how you know.
- How else can you think about this structure? Is there another way to see it?
- Are there even more ways you can picture or think about this structure?

Note: you may want to print this page and colour the different ways you see the structure. Can you write a mathematical equation to go with each picture?

Sample solutions are shown in the image above.

https://stevewyborney.com/2019/02/20-days-of-number-sense-rich-math-talk/



Cube Conversation #1

- How many unit cubes make up this structure?   Explain how you know.
- How else can you think about this structure? Is there another way to see it?
- Are there even more ways you can picture or think about this structure?

Note: you may want to print this page and colour the different ways you see the structure. Can you write a mathematical equation to go with each picture?

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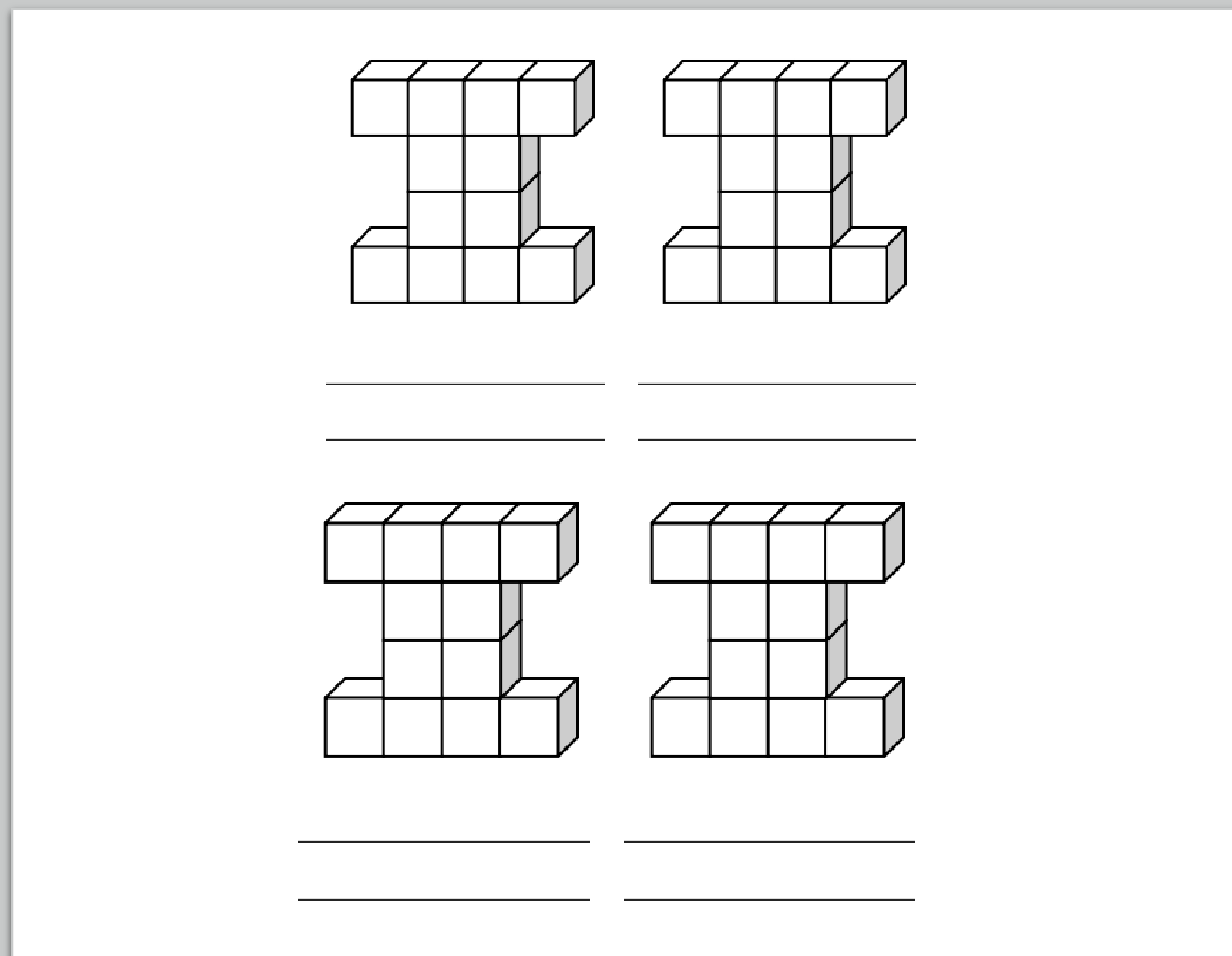

Cube Conversation #2

- How many unit cubes make up this structure?   Explain how you know.
- How else can you think about this structure? Is there another way to see it?
- Are there even more ways you can picture or think about this structure?

Note: you may want to print this page and colour the different ways you see the structure. Can you write a mathematical equation to go with each picture?

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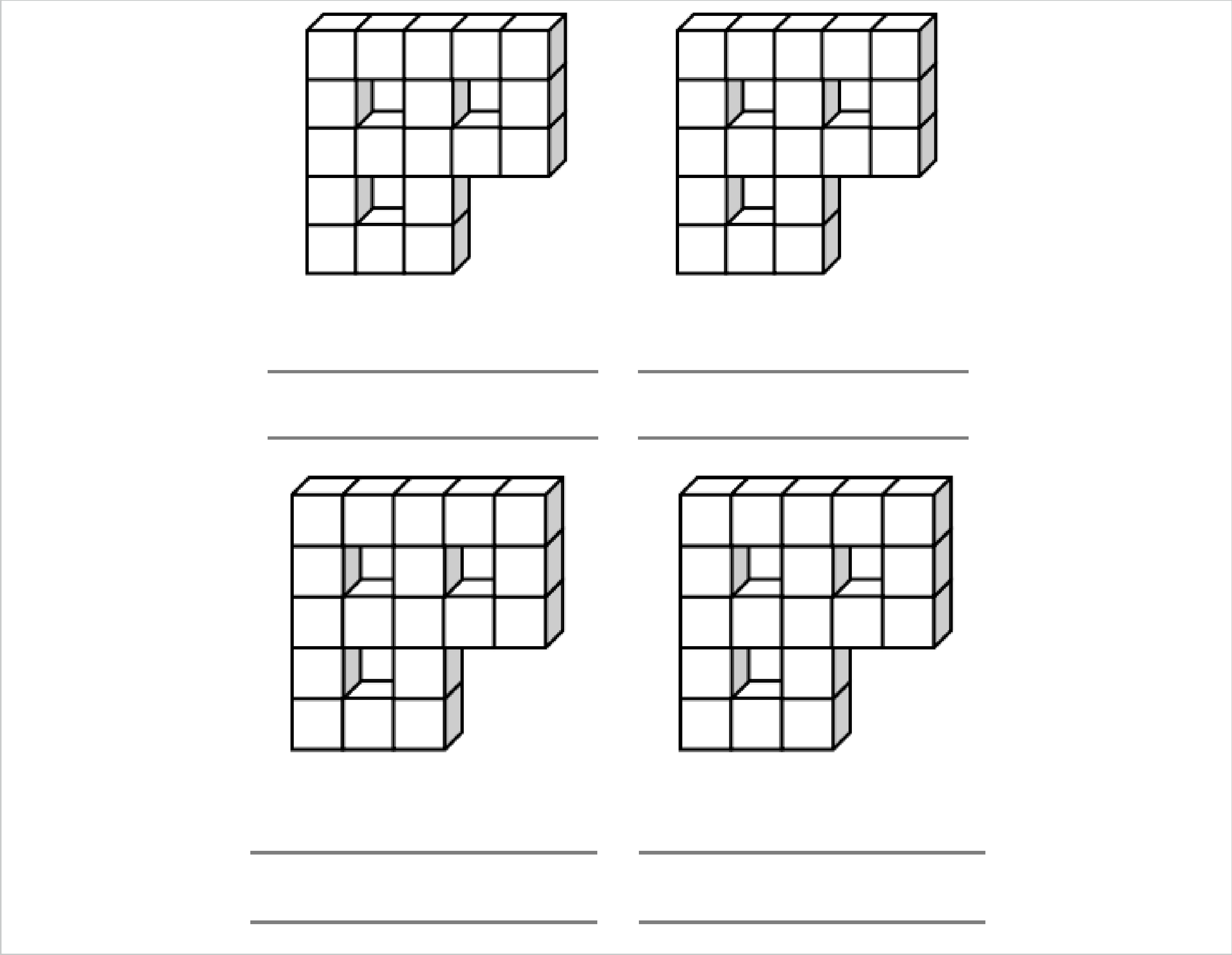
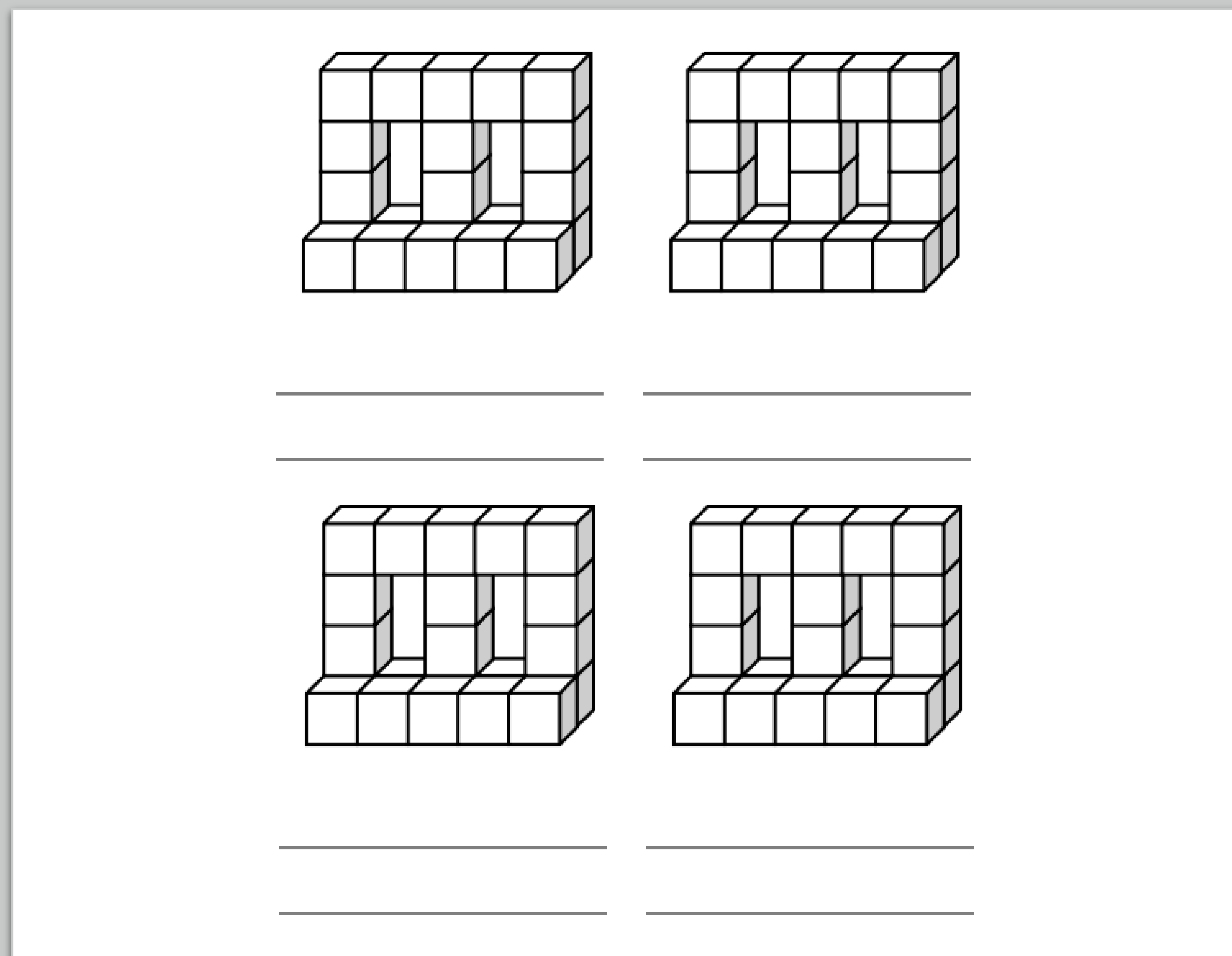


Cube Conversation #3

- How many unit cubes make up this structure? Explain how you know.
- How else can you think about this structure? Is there another way to see it?
- Are there even more ways you can picture or think about this structure?

Note: you may want to print this page and colour the different ways you see the structure. Can you write a mathematical equation to go with each picture?



Cube Conversation #4

- How many unit cubes make up this structure? Explain how you know.
- How else can you think about this structure? Is there another way to see it?
- Are there even more ways you can picture or think about this structure?

Note: you may want to print this page and colour the different ways you see the structure. Can you write a mathematical equation to go with each picture?

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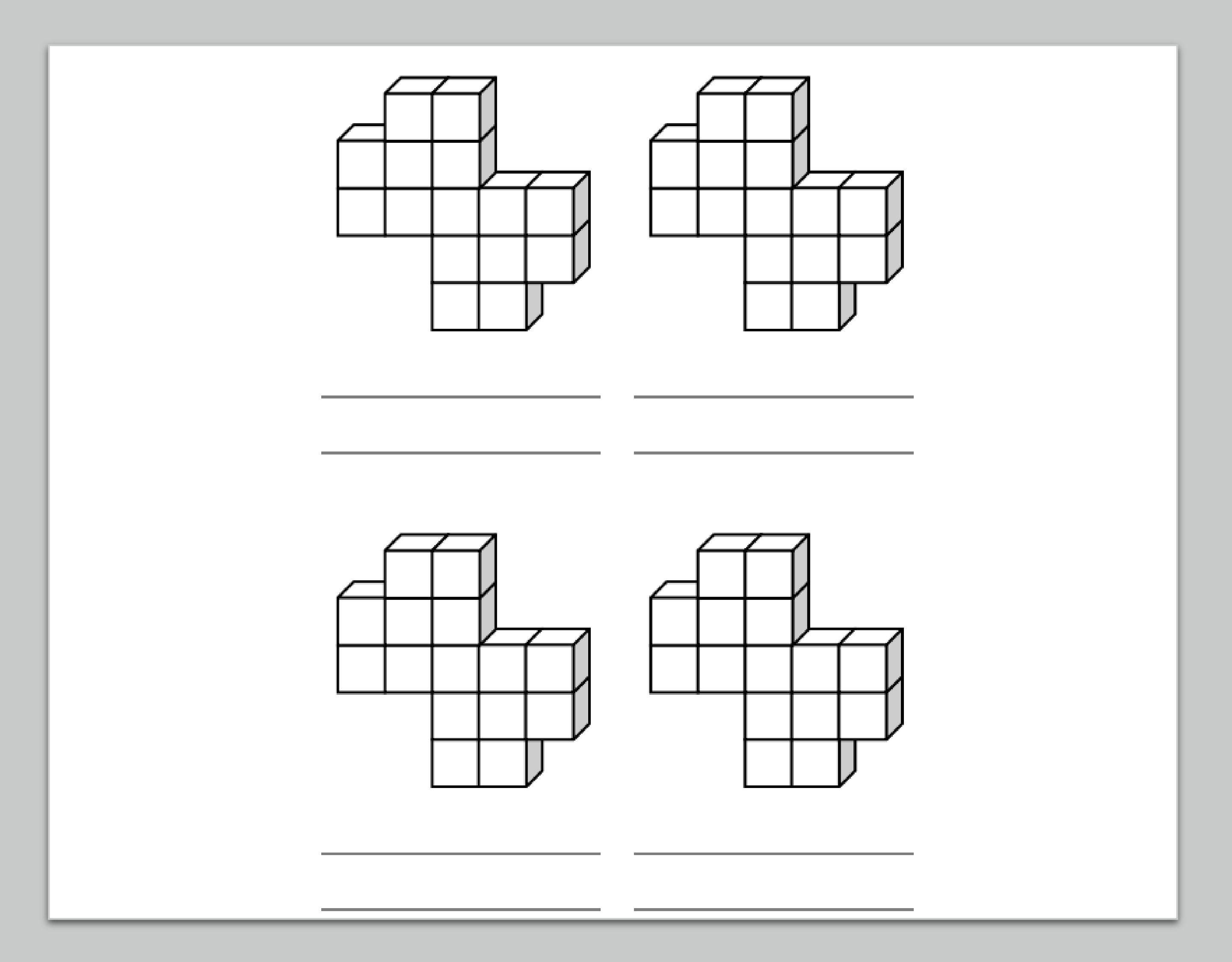

Cube Conversation #5

- How many unit cubes make up this structure? Explain how you know.
- How else can you think about this structure? Is there another way to see it?
- Are there even more ways you can picture or think about this structure?

Note: you may want to print this page and colour the different ways you see the structure. Can you write a mathematical equation to go with each picture?

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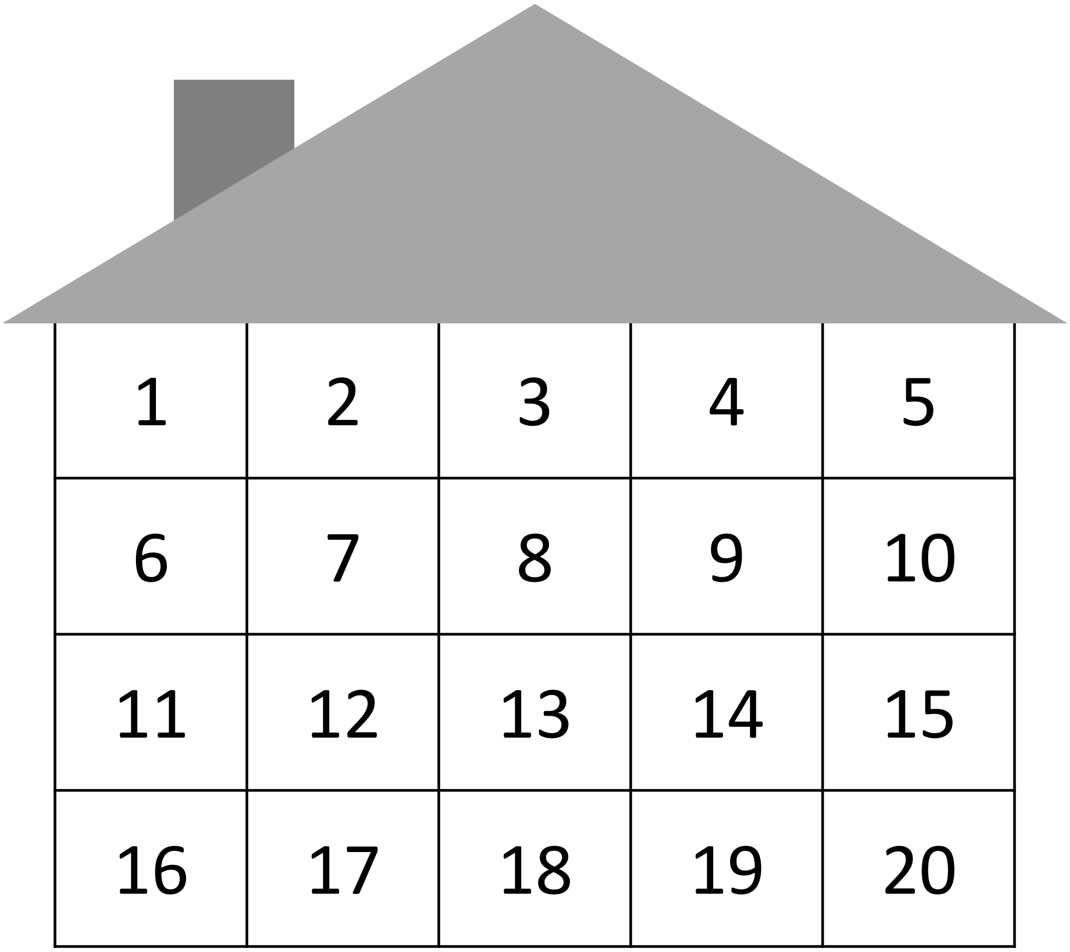


Get Out of My House!

Required materials:

A deck of cards (with face cards and jokers removed) and a piece of paper to draw the house.

7 markers for each person (i.e., 7 buttons, 7 Legos, or 7 coins) Ensure that each person has something different.

Instructions:

Create a house gameboard, like the one shown above.

On your turn, you flip over two cards from the deck. You either then add or subtract the cards. You place your marker on the result.

The next player flips over two cards from the deck. They can choose to add or subtract the cards and play their marker on the result.   IF the space is already occupied, they tell the other player to "Get out of my house!" and replace the marker with their own.

Play continues until 1 player has all seven of their markers on the board.

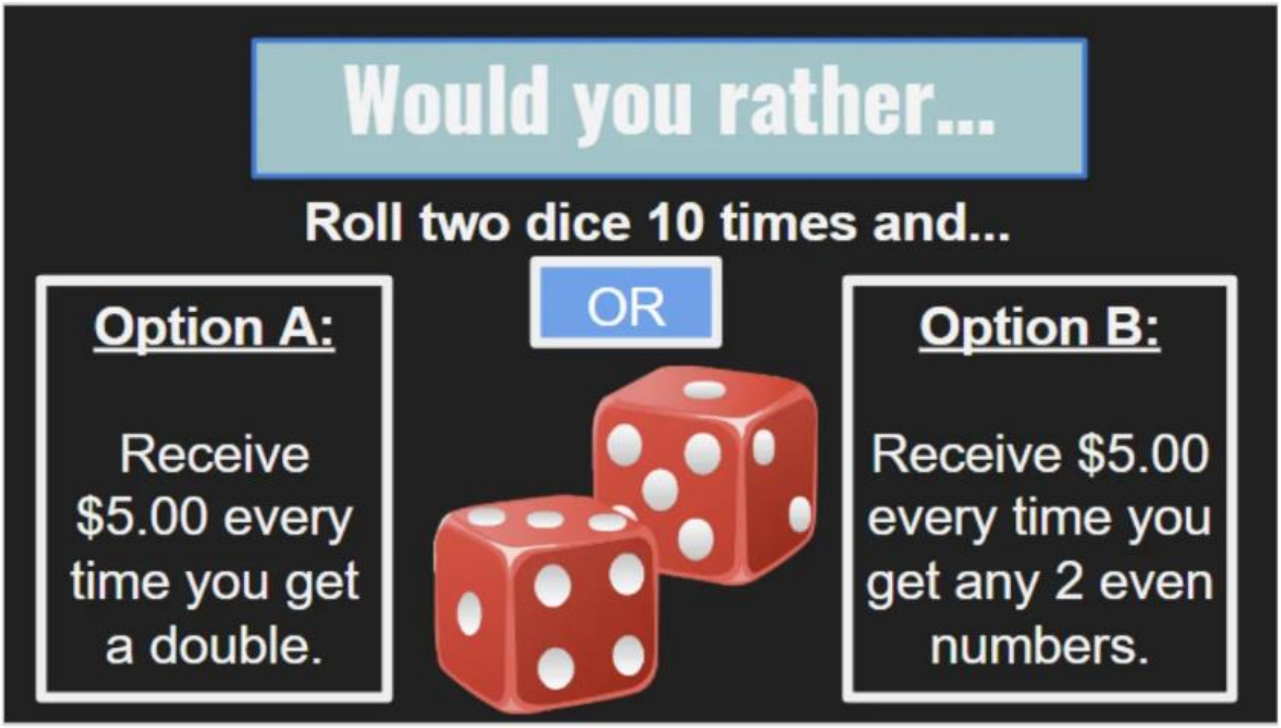
Change it up:

Use only the numbers 1 – 12, two number cubes, and 5 markers

Allow for multiplication and division

Want to see the game in action? Click here

Would You Rather?



Make a decision about which you would rather. Be sure to explain your thinking.

Try it out. Get out two dice and roll them ten times. Keep track of how often you get doubles, and how often you get an even number.
Which would have been the better option?
Do you always get the same results?

Certain	Likely
Unlikely	Impossible

Certain, Likely, Unlikely and Impossible

Take turns sharing events or things that might happen. Try to come up with 10 events, and don't be afraid to get silly. For example:

- Today I will brush my teeth.
- Today I will ride my bike.
- Today I will make my bed.
- Today I will take the dog for a walk.

Once the statement is said, decide if it is certain, likely, unlikely or impossible to happen. You may choose to record the statement in a chart like the one shown.

Certain I will brush my teeth. (I brush my teeth every morning and every night).	Likely I will make my bed. (I make my bed most days, but not always.)
Unlikely I will ride my bike. (I have a bike, but I don't ride it very often.)	Impossible Today I will walk my dog. (I don't have a dog.)

Heads or Tails?

Required Materials: two different coins like a quarter and a loonie

If you were to flip the coins 4 times, how many times would you expect:

- Two heads? Two tails? One of each?

How many times would you expect to see each, if you flipped the coins 8 times?

Predict how many of each you would get if you flipped the coins 20 times.

Try it! Flip two coins 20 times and record the results.

How close were you to your predictions?

Why might your predictions and the outcome have been different?

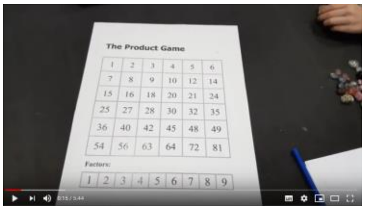
Outcome	Prediction for 20 flips	Tally Record for 20 flips
Two heads		
Quarter heads Loonie tails		
Quarter tails Loonie head		
Two tails		

Games of chance were, and continue to be, culturally significant within many Indigenous groups.

Please read the attached article to better understand cultural practices with some of the peoples whose land we share.

“The Peach Stone Game”

The Product Game



[Watch the game being played here]

1	2	3	4	5	6
7	8	9	10	12	14
15	16	18	20	21	24
25	27	28	30	32	35
36	40	42	45	48	49
54	56	63	64	72	81

Factors:

1	2	3	4	5	6	7	8	9

Required Materials:

Game board (like the one shown above, you can make your own), counters or tokens, and two items to mark the factors

Instructions:

Player 1: Puts a token on a factor.

Player 2: Puts the second token on a factor. Multiply the two factors together. Place a counter on that number, on the gameboard.

Questions to ask while playing:

Why did you choose to make ________?

Why didn't you make ___? That seems like it might have helped you?

Explain how you got ____?

What would you do differently next time you play?

Player 1: Moves one of the factor tokens to a different factor. Multiply the two factors together and place their counter on that number on the gameboard.

Player 2: Repeats the process of moving one factor token, and placing their counter on the product of the two numbers.

Game ends when a player gets three tokens in a row on the game board. You do not bump coins.

Change it up:

Use fewer factors and have the numbers appear more than once.

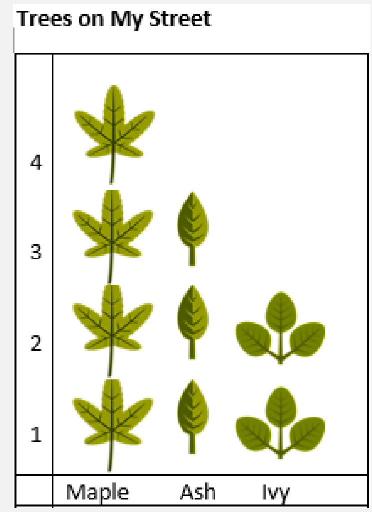
Try to get 4 in a row.

https://www.lovemaths.me/games/2020/4/1/the-product-game

Using and Creating Pictographs

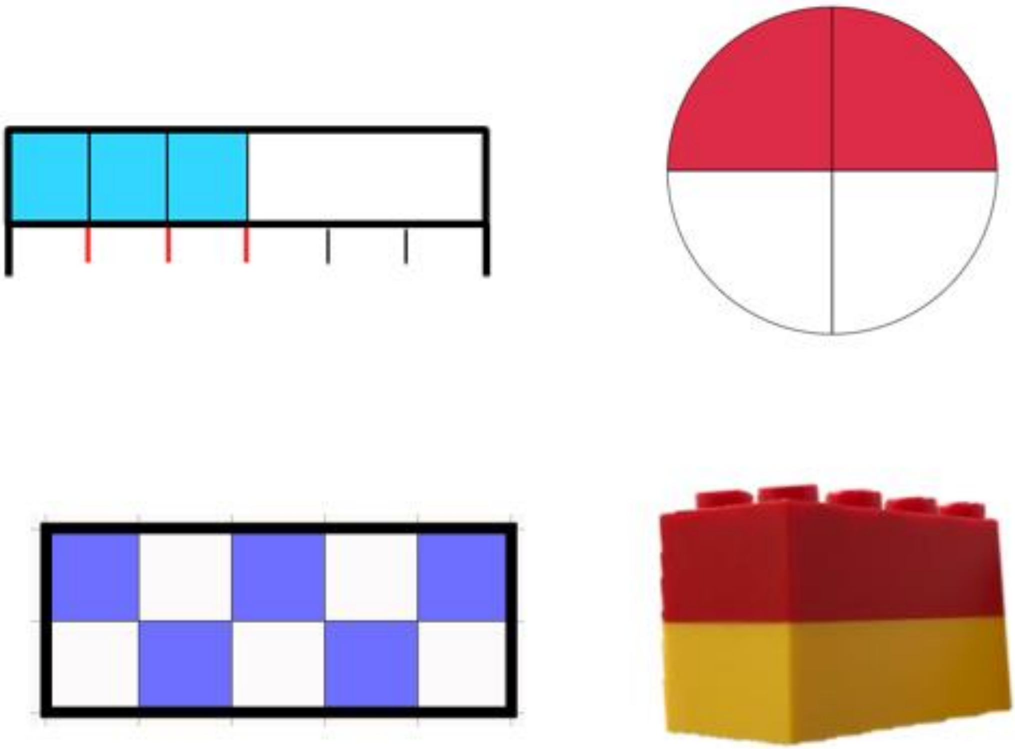
Using the pictograph here answer the following questions:

- How many trees are there in total?
- How do you know?
- How many more maple trees than ash trees does this represent?
- How do you know?
- If each picture were to represent 5 trees, how many trees would there be in total?



Create your own pictograph and answer the following questions:

- How many trees are there in total?
- How do you know?
- What type of tree is most common?
- What type of tree is least common?

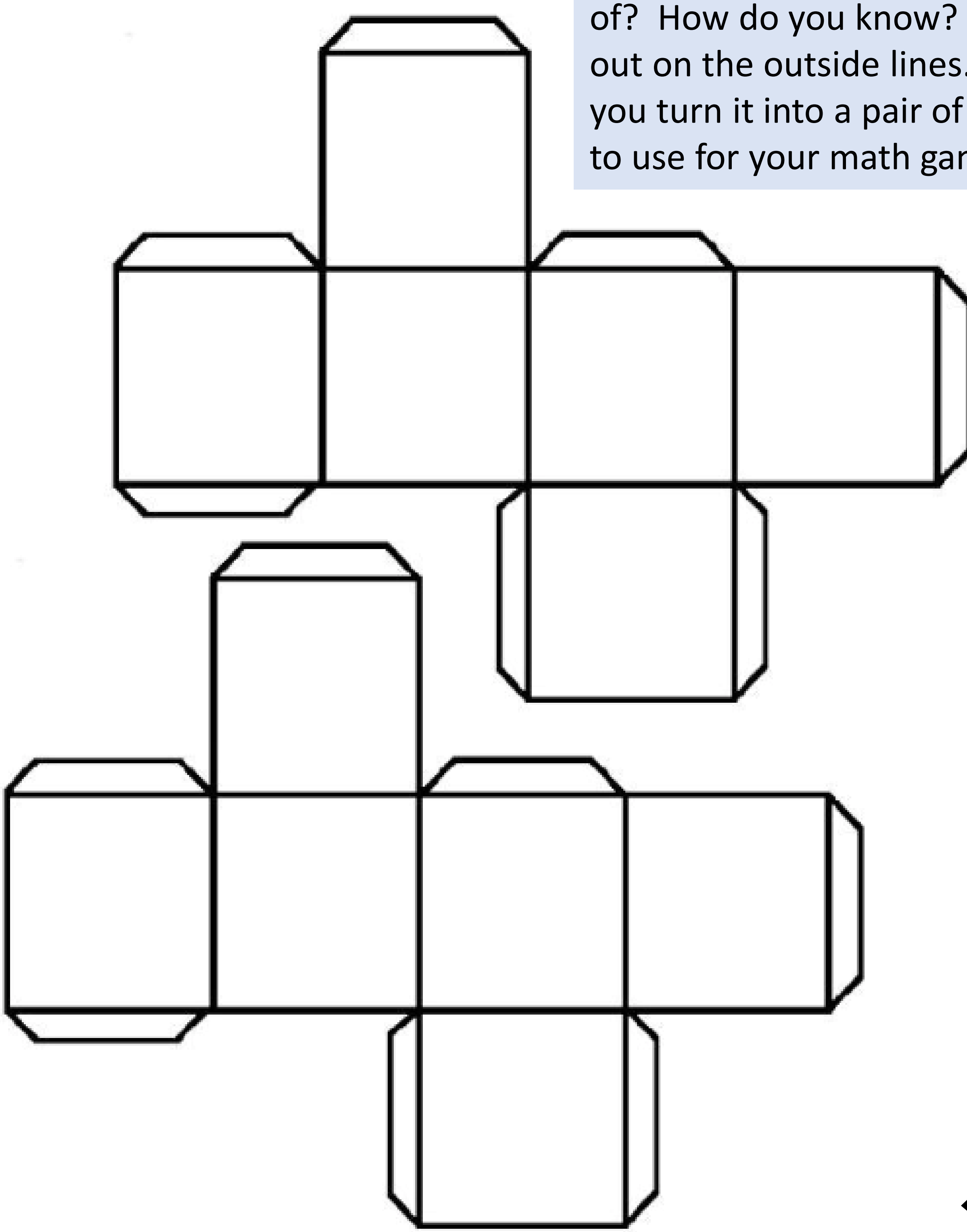


Same but Different

How are all the pictures alike?   How are they different?

Create a 3D Shape

What 3D Figure is this a net of? How do you know? Cut it out on the outside lines. Can you turn it into a pair of dice to use for your math games?



Muffin Tin Math

- Grab your spare change.
- In a muffin tin, place different money amounts.
- Have your child put coins in the muffin cups, to equal the money amount. Change up the values.
- Ask questions such as:
  - How did you come up with that?
  - Could you make that amount another way?
  - Could you use fewer coins?

Geoboard Gems*

- Using the geoboard tool found here, complete the activity.

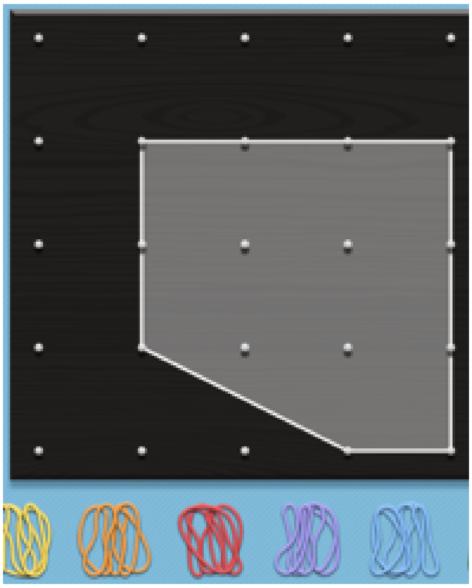
- Player 1 creates a shape that has 3 to 8 straight sides.
- Have students describe their shape and indicate what family it belongs to. (Triangles, Quadrilaterals, Pentagons, Hexagons, Heptagons, or Octagons).
  - when describing your shape, include words like sides, vertices, angles, lengths of sides (same, different)
- Repeat for several shapes.

Change it up: Can you give a set of clues and see if the other person creates the shape you were thinking of? What type of information do you need to make sure you get two congruent (same) shapes?

*Adapted from Effective Guide to Instruction 1 -3 Geometry and Spatial Sense

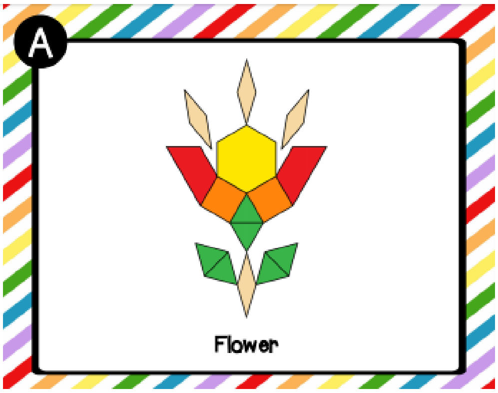
Example:

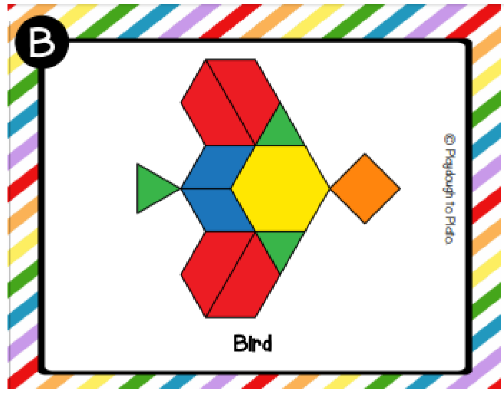
- The shape is a pentagon
- The shape has 5 vertices
- Three angles are right angles
- There are 4 pins in the middle of the shape
- Two sides are the same length

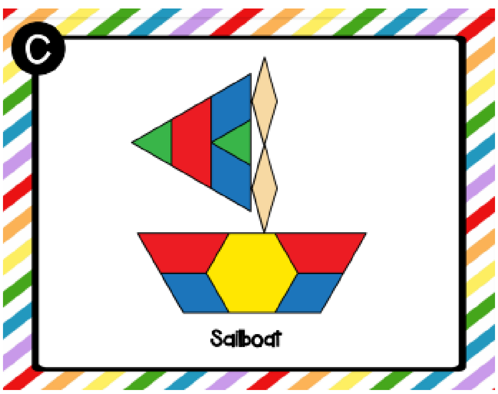


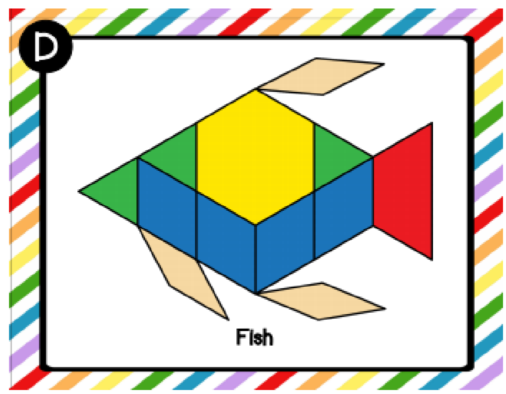
Pattern Block Challenge

Use the pattern blocks at mathies.ca.
Create the images below.
Keep track of how many of each shape you use.









	HEXAGON	FAT RHOMBUS	SKINNY RHOMBUS	SQUARE	TRAPEZOID	TRIANGLE
A						
B						
C						
D						

Grades 1 -3 Curriculum Continuum Connections

Note: highlighted expectations are addressed in Menu C

	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