

Pack #3 Montessori learning ideas

THE FMS LEARNING FROM HOME SERIES PACK FOR
Lower Primary (6-9 years)



Forestville
MONTESSORI School
Thriving beyond...

Monday 27th April 2020

From Your Teachers:

Dear 6-9 Children and Parents,

Welcome back to Term 2! We hope that all of you had a safe and enjoyable break.

We are very much looking forward to working with everyone this term. Please enjoy the lessons contained inside this Pack #3 of the FMS Montessori Learning from Home Series. Parts of this packet will use some homemade materials from the Lower Primary Get Crafty pack that was released at the end of last term. We would love to see the great learning that is taking place at home. Please share what your child and family are doing by uploading photos and comments via the Transparent Classroom app.

As with the previous packets, these activities are suggestions for what the children can do at home. We do not expect all the activities to be completed, though, the children are welcome to work through all of them if they are interested.

Children can choose the activities that appeal to them and are welcome to also come up with their own ideas for how to express their understanding of the material and concepts. To help the children keep their routine, we encourage them to keep their work diaries and thoughts about their own work and ideas. We would love to see these diaries when they come back.

We sincerely thank you for supporting your children, and we really appreciate you contacting us with questions for guidance as your child continues their Montessori Learning from Home journey. The teachers will contact you shortly with a one on one conference to talk about starting points, expectations and how you are going. This will be like a mini conference, so be prepared to share what you have been doing.

We are also happy to announce that shortly we will be moving lessons to a new on-line platform which will enable us to customise lessons to your child's needs and monitor their progression.

Please continue to reach out to us via the telephone or email if you have any questions about your packs. Remember to keep looking out for the YouTube clips on our [Forestville Montessori School Channel](#).

Warm regards,

Xarifa, Carli and Harini

Lower Primary (6-9 years) Staff



Mathematics

Maths Materials Challenge

Pack #2 Get Crafty! Hand-made Montessori resources

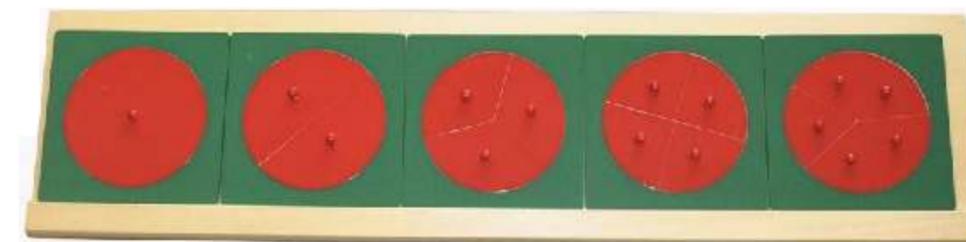
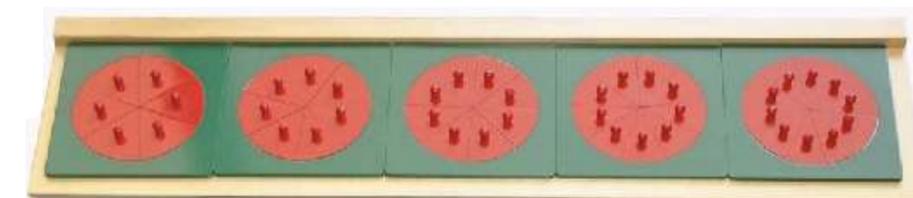
At the end of Term 1 you were emailed a Get Crafty! Pack which had instructions on how to make the following materials:

- Stamp Game
- Fractions
- Racks and Tubes
- Large Bead Frame or Small Bead Frame
- Checkerboard

Which materials have you made? Which materials have you used? If you haven't made anything yet now is your time to start!! You will need the materials for lessons inside this pack.

Please upload photos of your material and you using it to Transparent Classroom. We'd love to see what you've been up to.

Can you explain to someone what you used the material for and what your next lessons on it could be?



Mathematics



Stamp Game - Addition

This activity will require the Stamp Game material from the Get Crafty Pack.

When we talk about dynamic addition, we're going to be working through problems that need us to exchange between hierarchies.

How many of each hierarchy can we have before we need to exchange? Once we reach 10 in a single hierarchy, we need to exchange those 10 for 1 of the next hierarchy up.

Do you remember when we did this lesson? We used the stamps to **add** two numbers together to find our **sum**. We formed one number first, our first **addend**, and then we formed a second number beneath it, our second **addend**. Then, when we did that, we pushed them all together and counted them out and exchanged when we needed to.

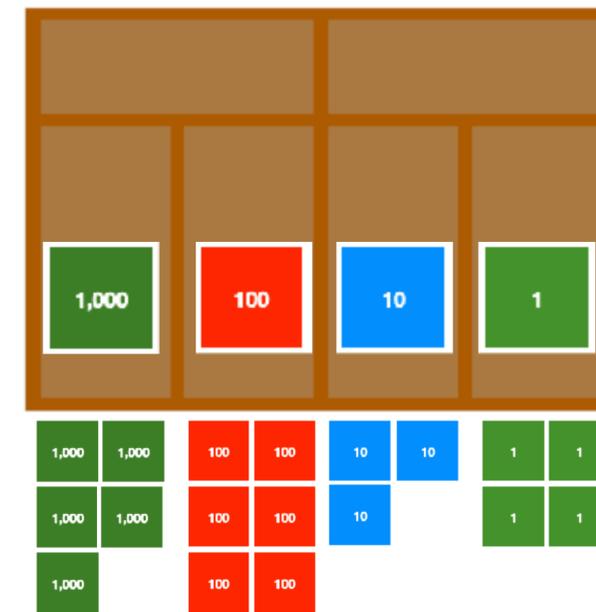
Let's do an example together.

Dynamic Addition with the Stamp Game

1. Our problem will be $5,634 + 1,827$. Write it out on grid paper with our coloured pencils so it looks like this:

$$\begin{array}{r} 5634 \\ + 1827 \\ \hline \hline \end{array}$$

2. Now we're going to form the top number, our first **addend**, with our Stamp Game Material.



Mathematics

3. Now, we're going to form the bottom number, the second **addend**, below that with a bit of space between them.



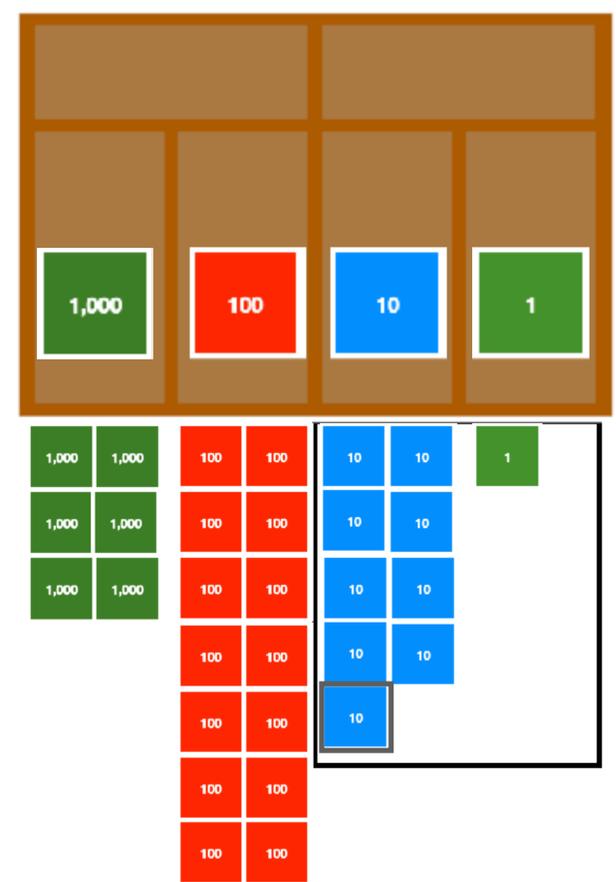
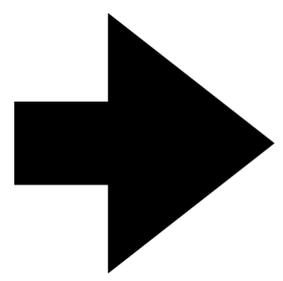
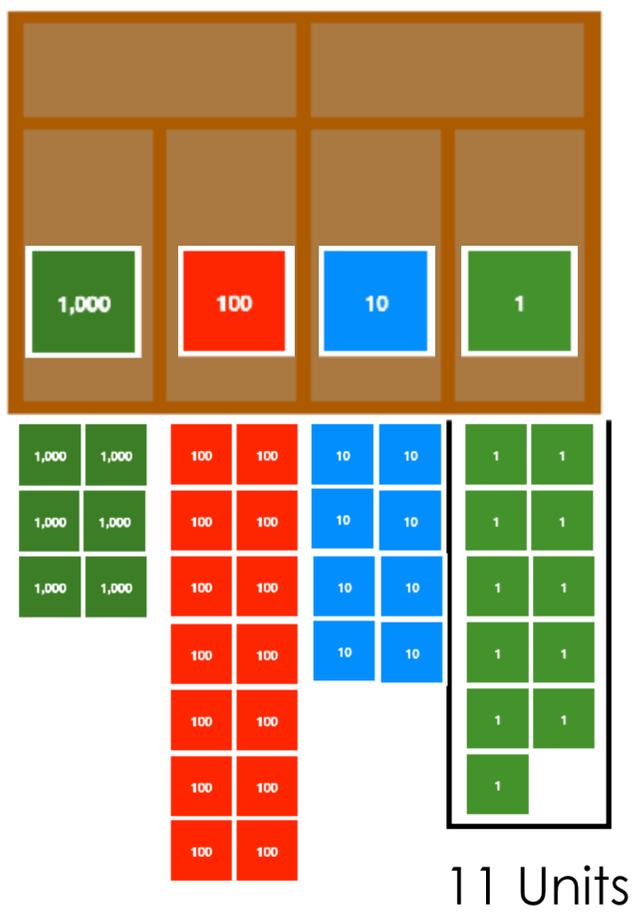
4. We've formed both **addends**, so we're going to push them together and find out the **sum** of both numbers. We're going to have to exchange when we get to 10 of each hierarchy, so let's remember to do that.



1

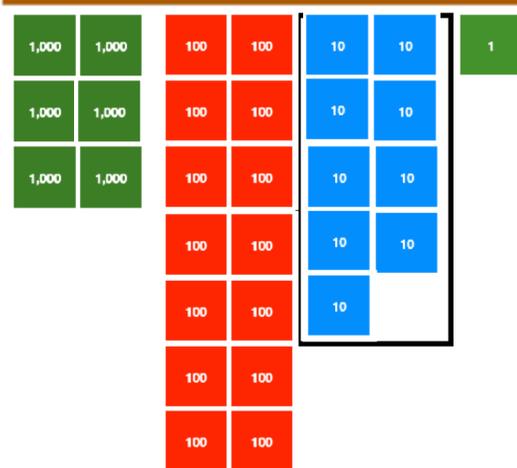
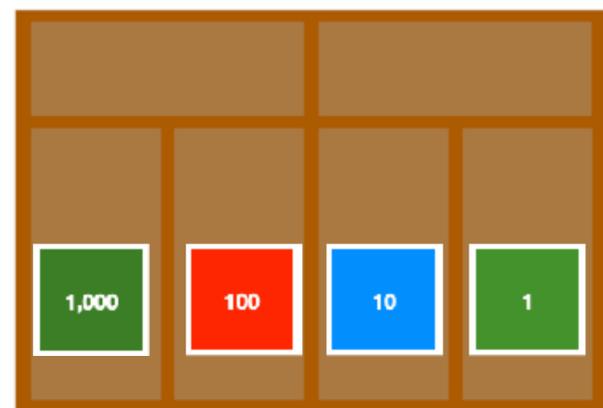
Mathematics

5. Starting from the **units**, we're going to count them out and exchange when necessary.

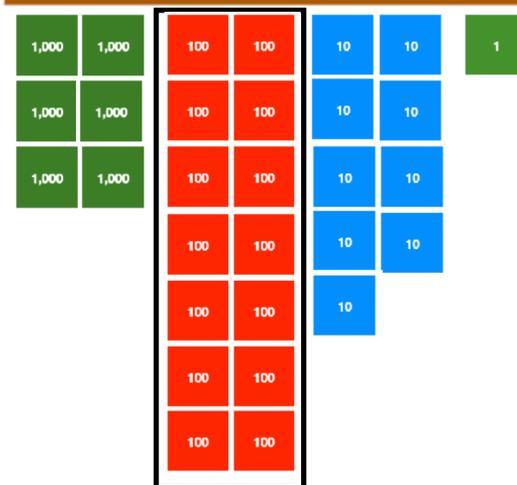
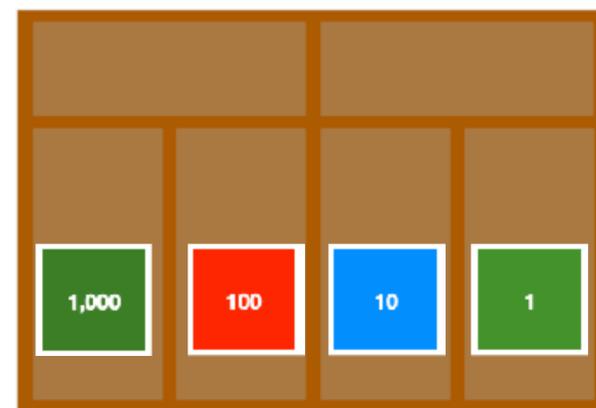
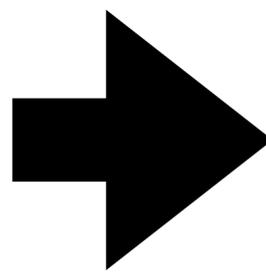


One unit left, exchanged ten units for one 10

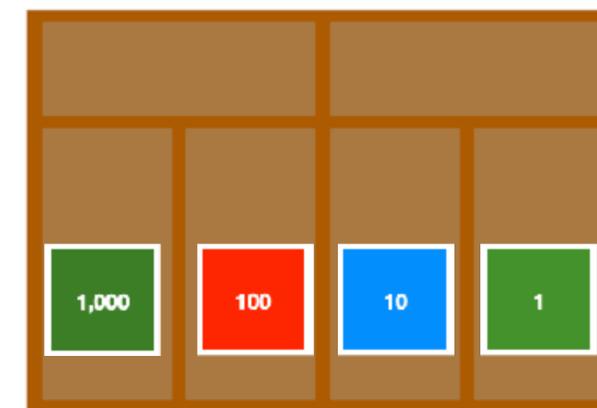
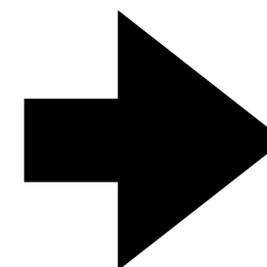
Mathematics



Nine 10s, no need to exchange

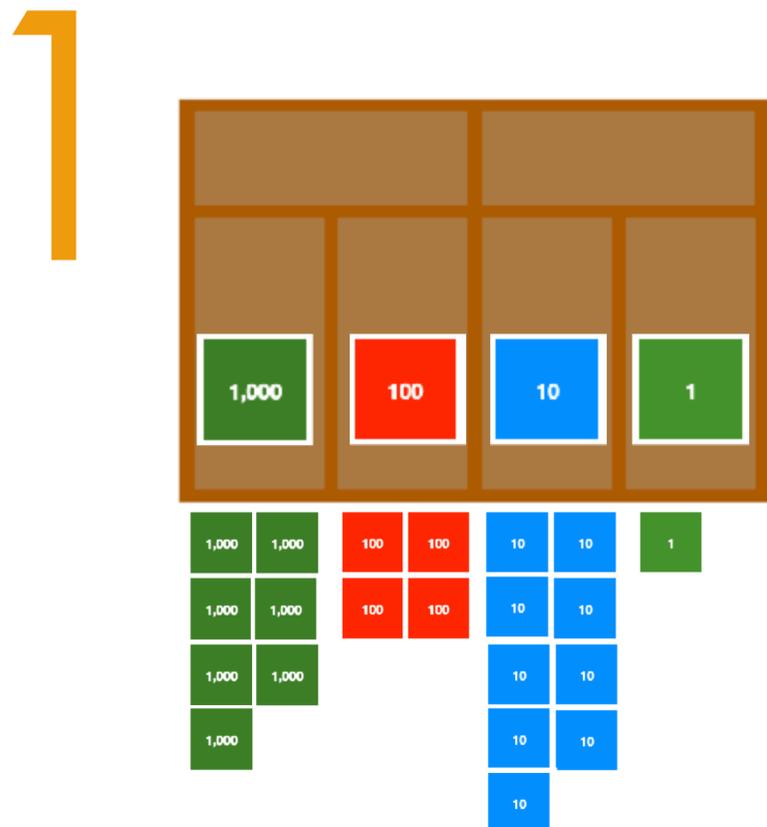


Fourteen 100s, need to exchange.



Four 100s, exchanged ten 100s for one 1000.

Mathematics



Seven 1000s, no need to exchange.

Our final answer

6. Our final answer is what we can see in our tiles. We have:

1 Unit

9 10s

4 100s

7 1000s

We can write this answer down in our problem.

$$\begin{array}{r}
 5634 \\
 + 1857 \\
 \hline
 7491
 \end{array}$$

Now we've completed an example together!

Can you make up your own problems to solve?

Mathematics

Stamp Game - Subtraction

This activity will require the Stamp Game material from the Get Crafty Pack.

Dynamic subtraction is a tricky activity but we will work through it together.

Dynamic subtraction is when we need to exchange between the hierarchies, but instead of adding to the higher hierarchy, we will be taking from it.

Do you remember when we did this lesson? We used the stamps to **subtract** two numbers together to find our **difference**. We formed one number first, our **minuend**, and then we **subtracted** the second number, our **subtrahend**, from it.

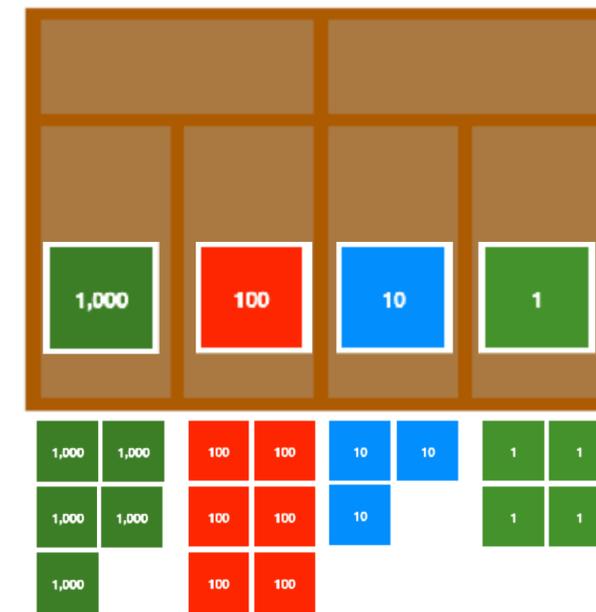
Let's do an example together.

Dynamic Subtraction with the Stamp Game

1. Our problem will be $5,634 - 1,912$. Write it out on grid paper with our coloured pencils so it looks like this:

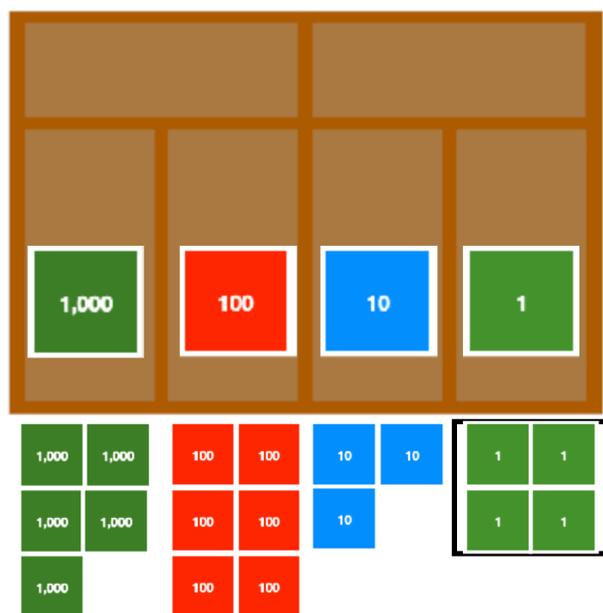
$$\begin{array}{r} 5634 \\ 1912 - \\ \hline \\ \hline \end{array}$$

2. Now we're going to form the top number, our **minuend**, with our Stamp Game Material.

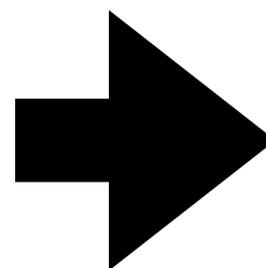


Mathematics

3. Now, we're going to take the bottom number, the **subtrahend**, away from the top number, the **minuend**, starting from the units.

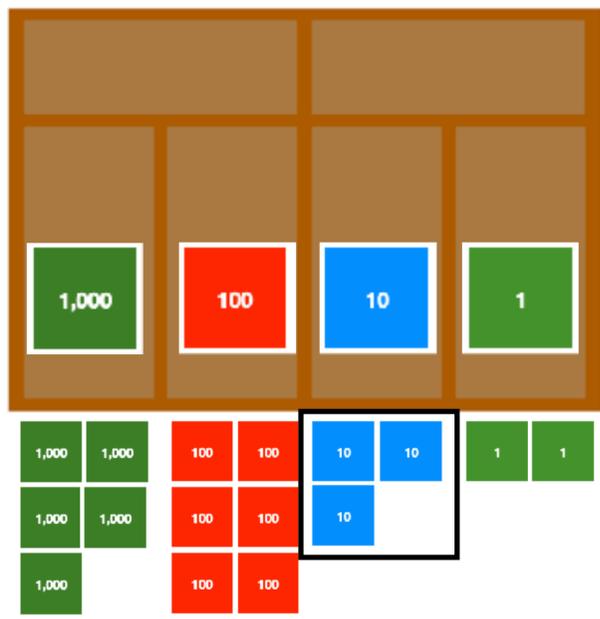


Four units minus two units. We have to take away two unit tiles.

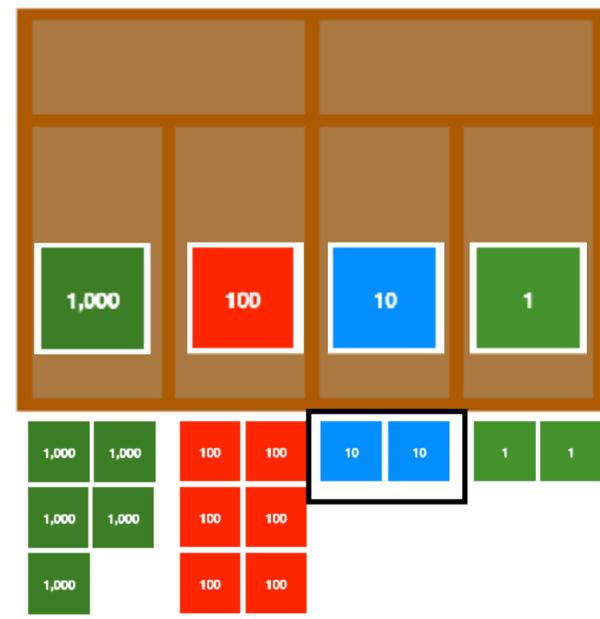
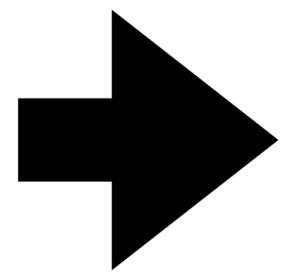


We have two unit tiles left.

1 Mathematics

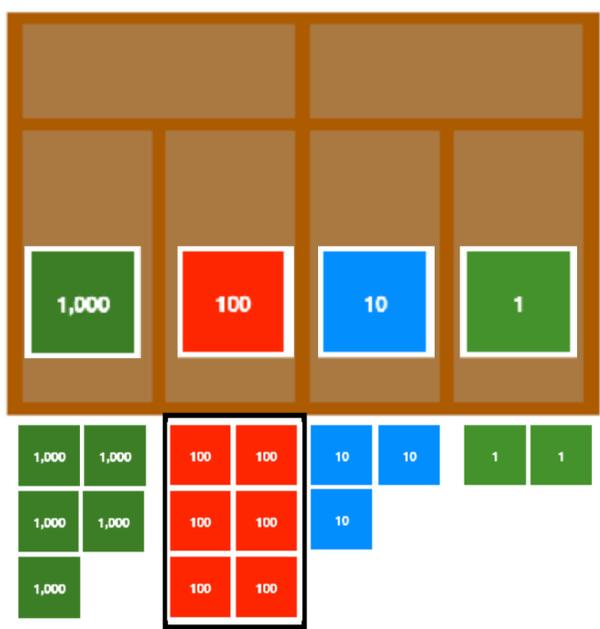


Three 10s minus one 10.
 We have to take away
 one 10 tiles.



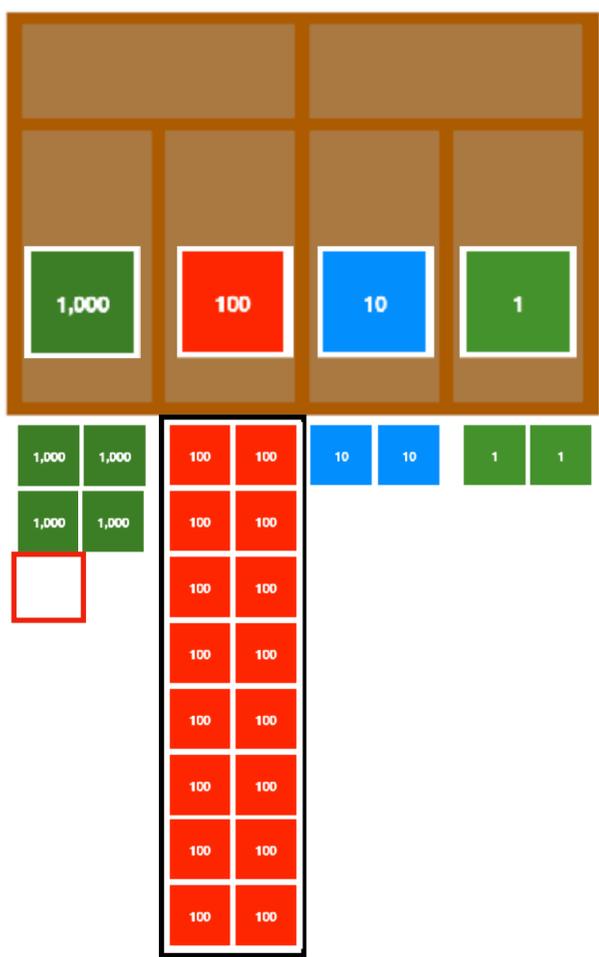
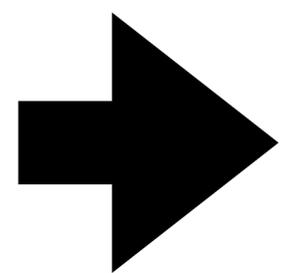
We have two 10s tiles
 left.

Mathematics

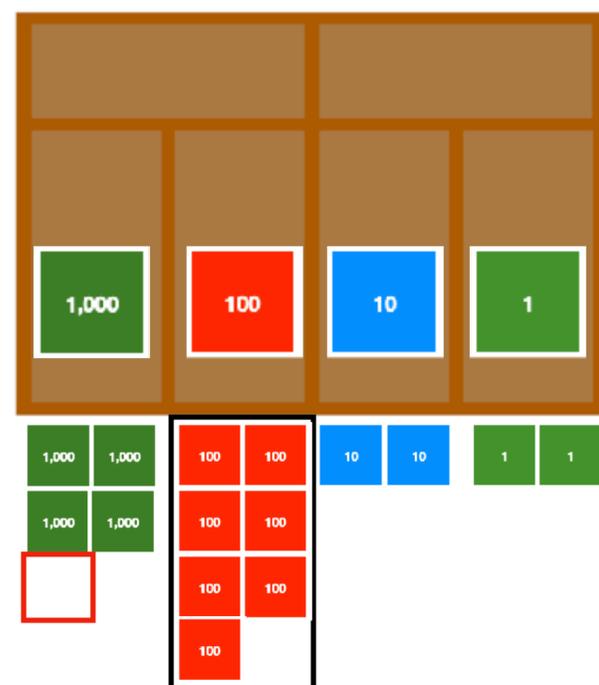
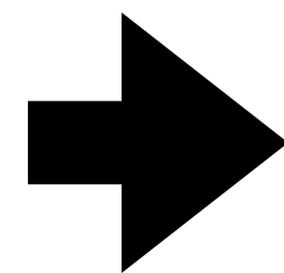


Six 100s minus nine 100s. We have to take away nine 100s tiles.

We don't have nine 100s tiles - we don't have enough to take away. What we need to do now is **exchange**. To do this, we need to put back one 100s tile and exchange that for ten 100s tiles.

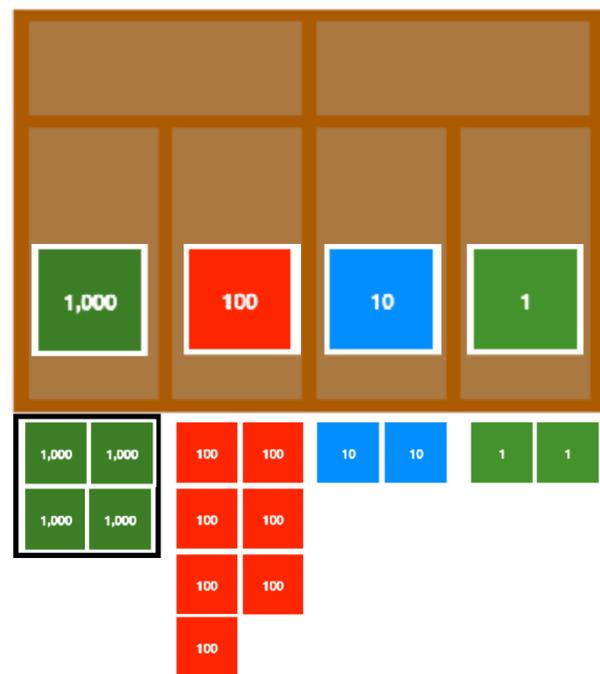


We now have sixteen 100s tiles. We are now able to take away nine 100s tiles.

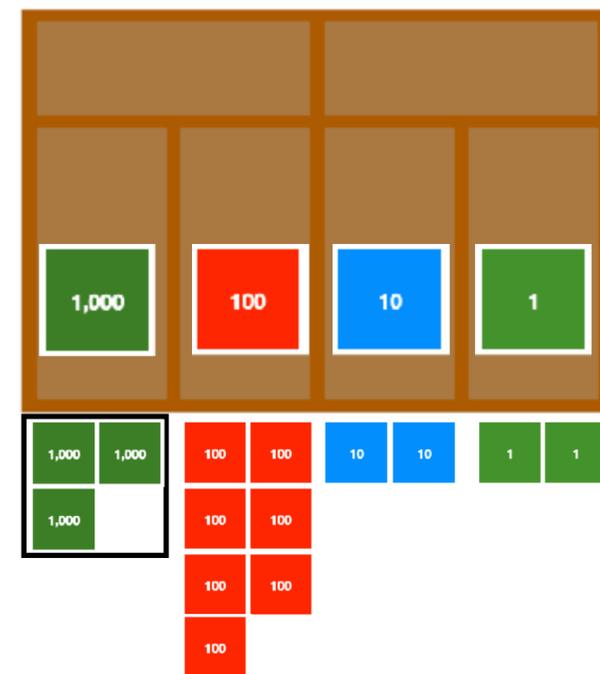
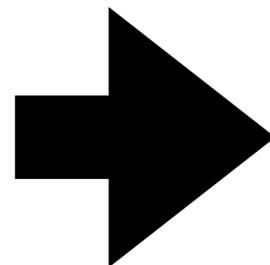


We have seven 100s tiles left.

Mathematics

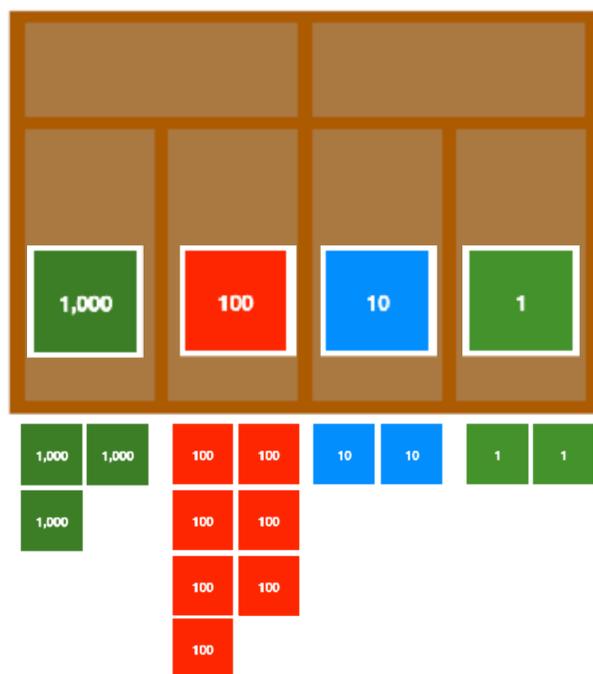


Four 1000s minus one 1000. We have to take away one 1000 tile.



We have three 1000s tiles left.

Mathematics



Our final answer

6. Our final answer is what we can see in our tiles. We have:

2 Units

2 10s

7 100s

3 1000s

We can write this answer down in our problem.

$$\begin{array}{r}
 5634 \\
 1912 - \\
 \hline
 3722
 \end{array}$$

Now we've completed an example together!

Can you make up your own problems to solve?

Mathematics

The Large Bead Frame

This activity will require the Large Bead Frame material and the Large Bead Frame paper (page 28 of the Get Crafty Pack) from the Get Crafty Pack.

When we've worked with the Large Bead Frame, we've done a few activities. What we're going to revise here is how to form and how to read numbers on the Large Bead Frame.

Let's do this together now!

For the children who have already worked through addition, subtraction and multiplication on the Large Bead Frame, please feel free to do these activities as well.

Forming and reading numbers on the Large Bead Frame

When the Large Bead Frame is in a neutral starting position, all the beads start on the left side of the Large Bead Frame, next to the numbers.

1. Here is our Large Bead Frame. Remember how many beads are on each wire? We have ten beads per wire, so that means there are ten beads per hierarchy.

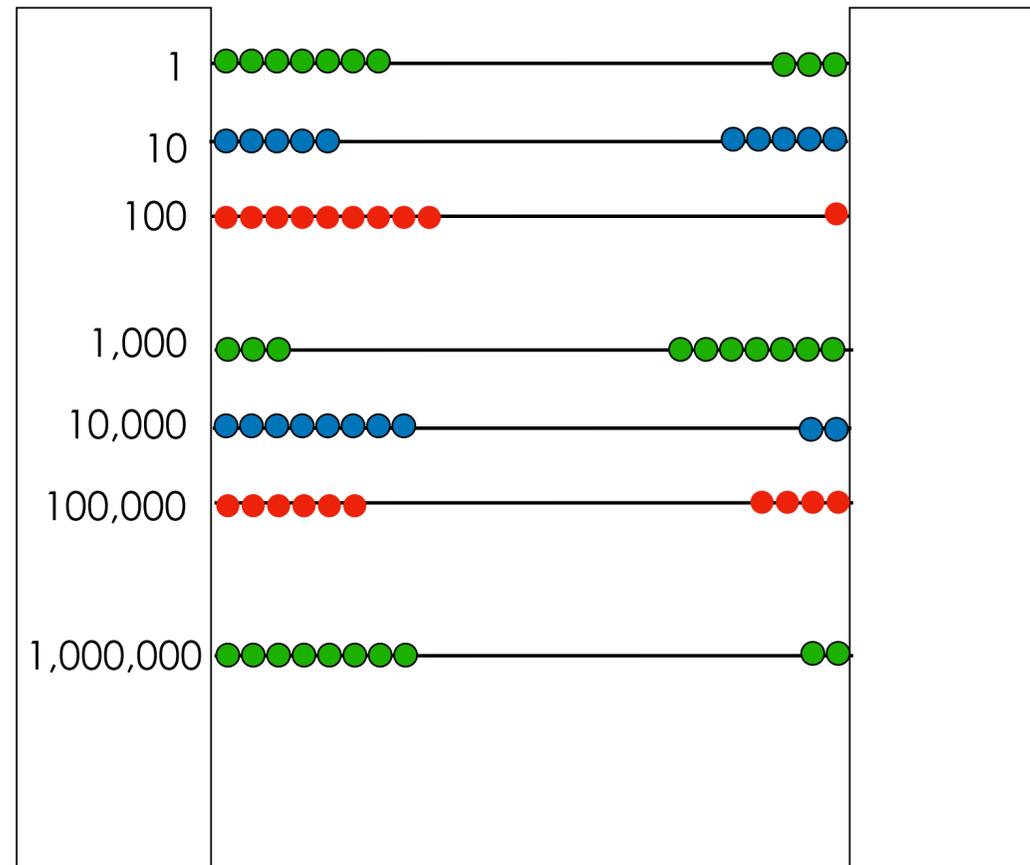


Mathematics

Forming and reading numbers on the Large Bead Frame

2. To form a number, we need to move the beads to the right side of the bead frame and read the number of beads that are on that side.

For example, I will form a number.



I can see that I have three beads on my units wire. This means I have three units.

I can see that I have five beads on my 10s wire. This means I have five 10s.

I can see that I have one bead on my 100s wire. This means I have one 100.

I can see that I have seven beads on my 1000s wire. This means I have seven 1000s.

I can see that I have two beads on my 10,000s wire. This means I have two 10,000s.

I can see that I have four beads on my 100,000s wire. This means I have four 100,000s.

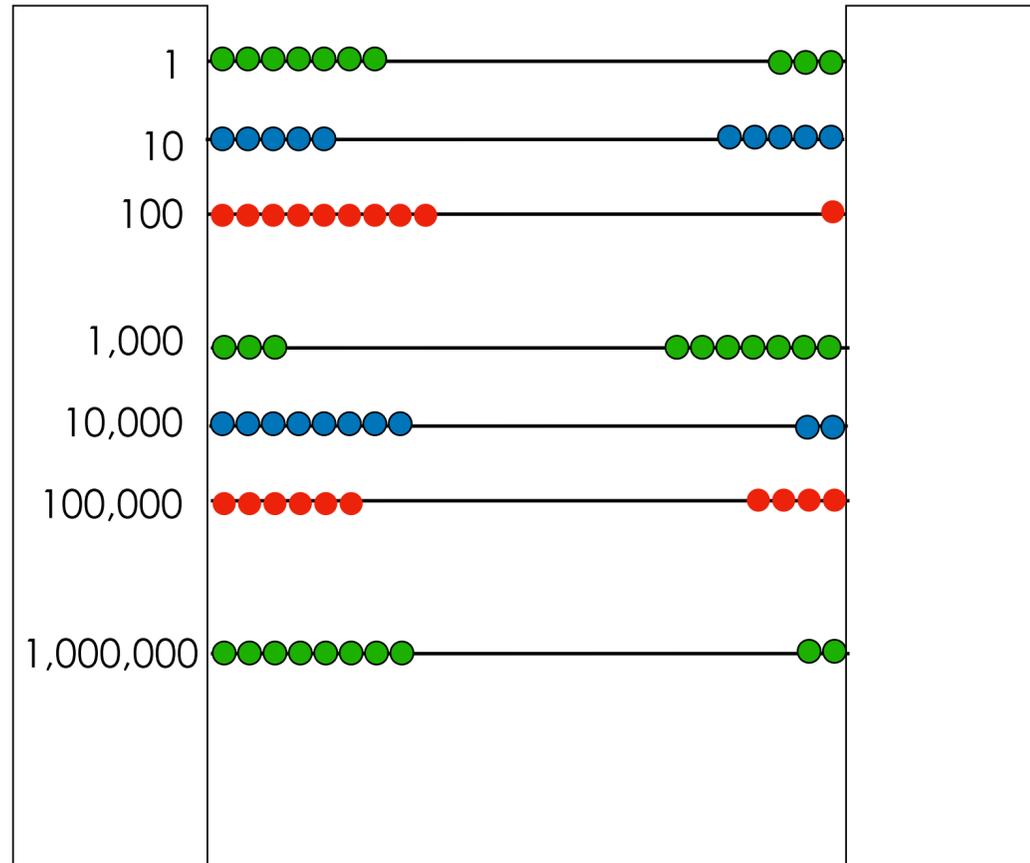
I can see that I have two beads on my 1,000,000s wire. This means I have two 1,000,000.

Mathematics

1 Forming and reading numbers on the Large Bead Frame

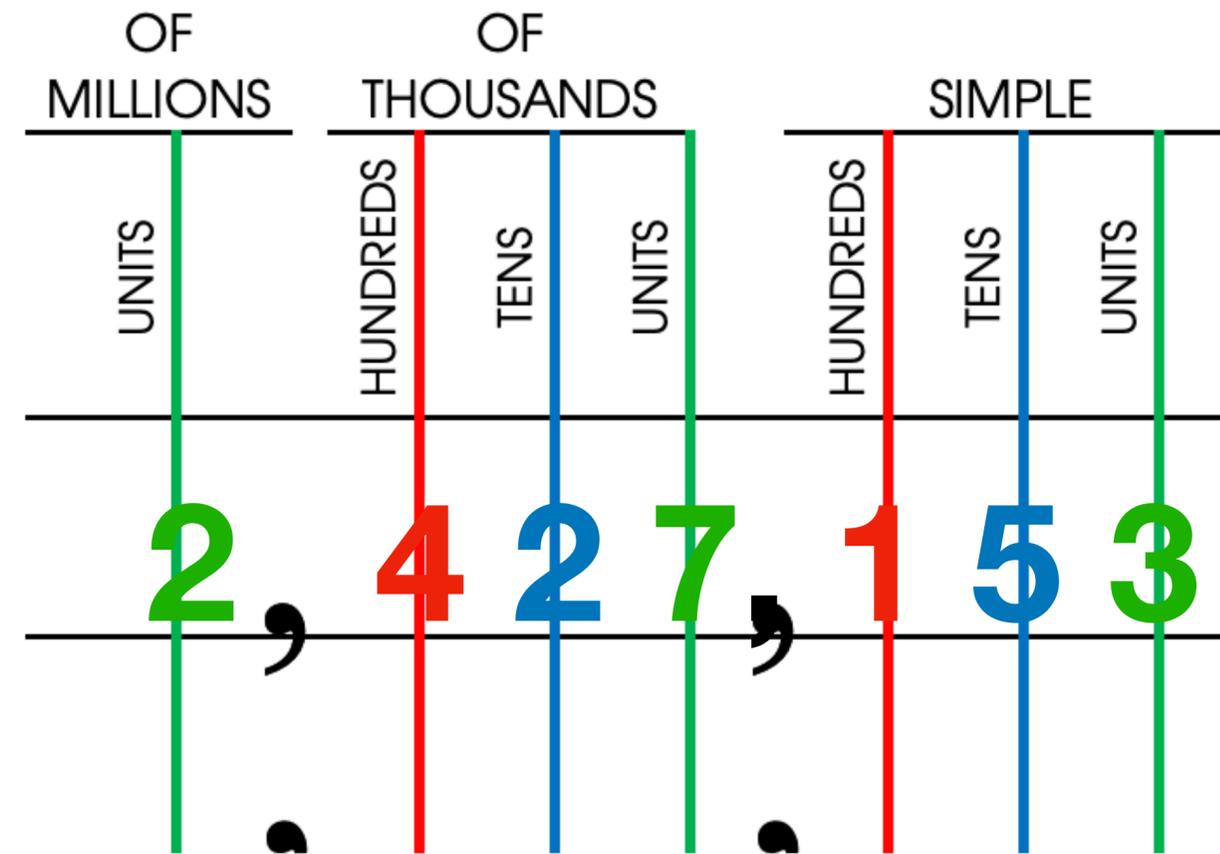
3. I have formed a number on the Large Bead Frame.

This number reads as two million, four hundred and twenty seven thousand, one hundred and fifty-three.



It is also okay if the children read the number as two millions, four hundred thousands, two ten thousands and seven thousands, one hundred and five tens and three units, as reading large numbers is also about practice and understanding.

I would write this number like this:



Mathematics

Racks and Tubes

Note: This should be a revision lesson. Please do not give this lesson to the child if they have not been given a lesson on the Racks and Tubes by Xarifa or Carli.

The activity requires the Racks and Tubes material from the Get Crafty Pack.

The Racks and Tubes material was created for Distributive Division. We explore the concept of long division with this material through working initially with 1-digit divisors through to multi-digit divisors.

This material helps the children to work through the abstract concept of distributive division with concrete materials.

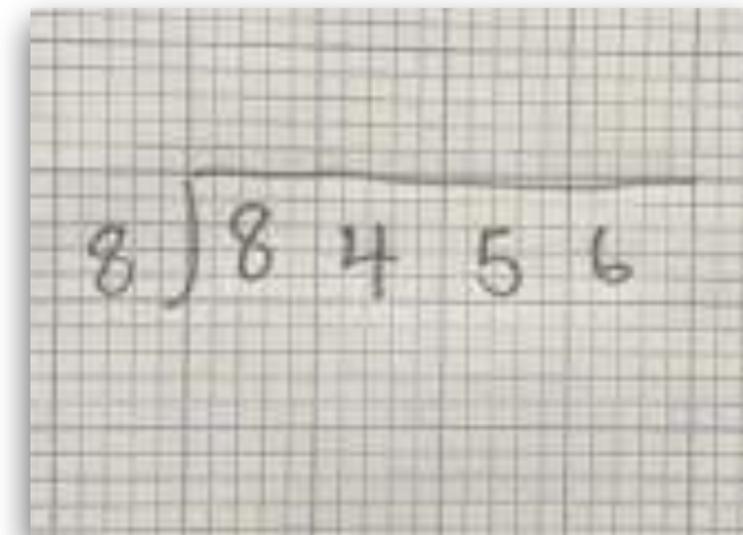
Let's do an example together.

Distributive division with the Racks and Tubes with a 1-digit divisor

Let's start by creating a problem. For example **8,456 divided by 8** or $8,456 \div 8$.

In this example, the **dividend**, the number we are dividing, is 8,456. The divisor, or the number we are dividing by, is 8.

The first thing we do is write it in box notation on paper:



A photograph of a piece of graph paper with the division problem $8 \overline{) 8456}$ written in pencil. The divisor '8' is on the left, followed by a closing parenthesis '}', then the dividend '8456' is written across the top line of the box.

Mathematics

Distributive division with the Racks and Tubes with a 1-digit divisor

The dividend is 8456. We need to create that number with the material.

We do that by placing the beads in the appropriate bowls.

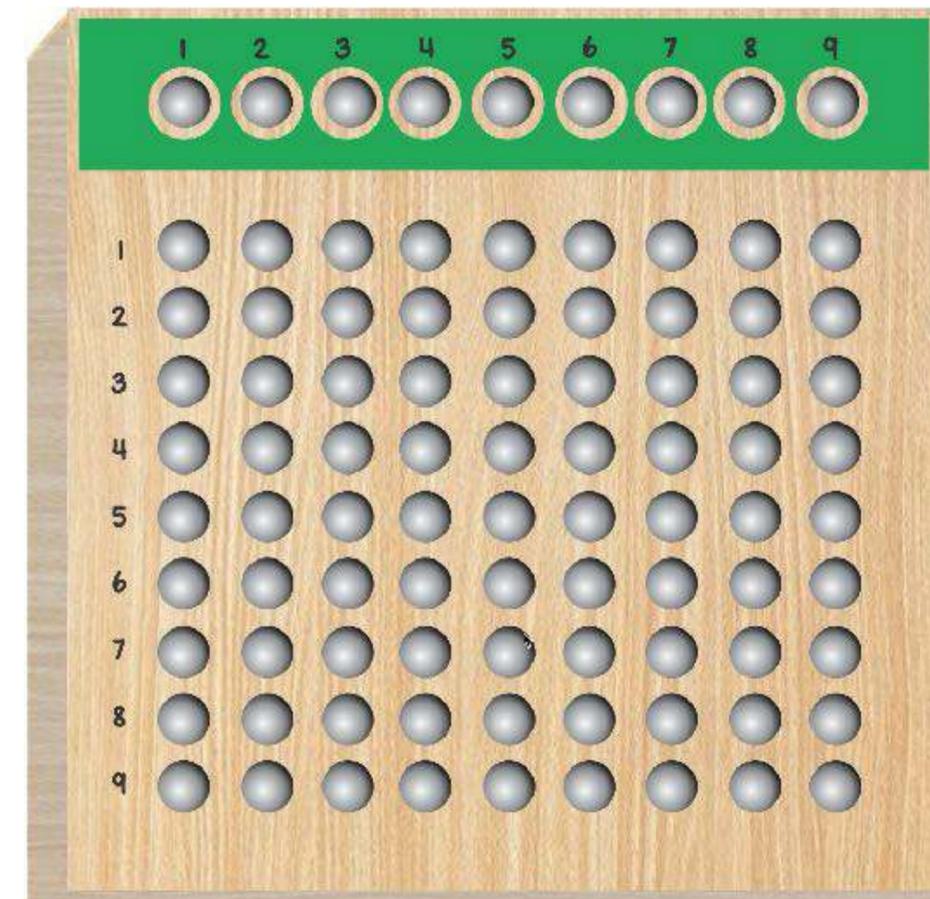
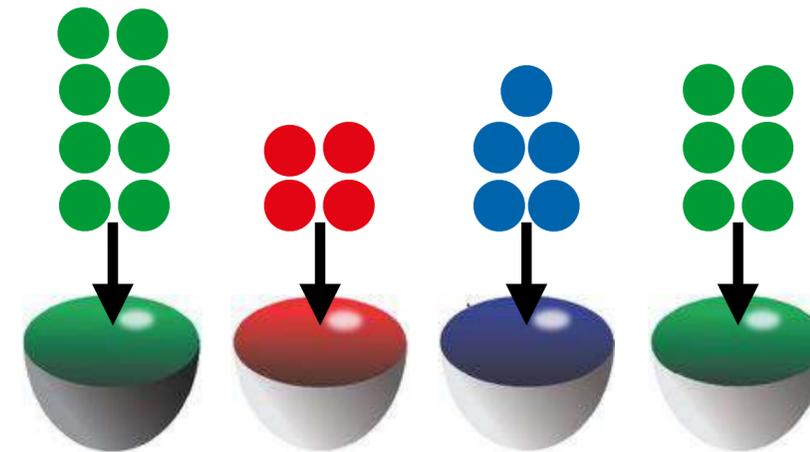
We have 6 units, so we place 6 green unit beads in the green and white bowl.

We have 5 tens, so we place 5 blue unit beads in the blue and white bowl.

We have 4 hundreds, so we place 4 red hundred beads in the red and white bowl.

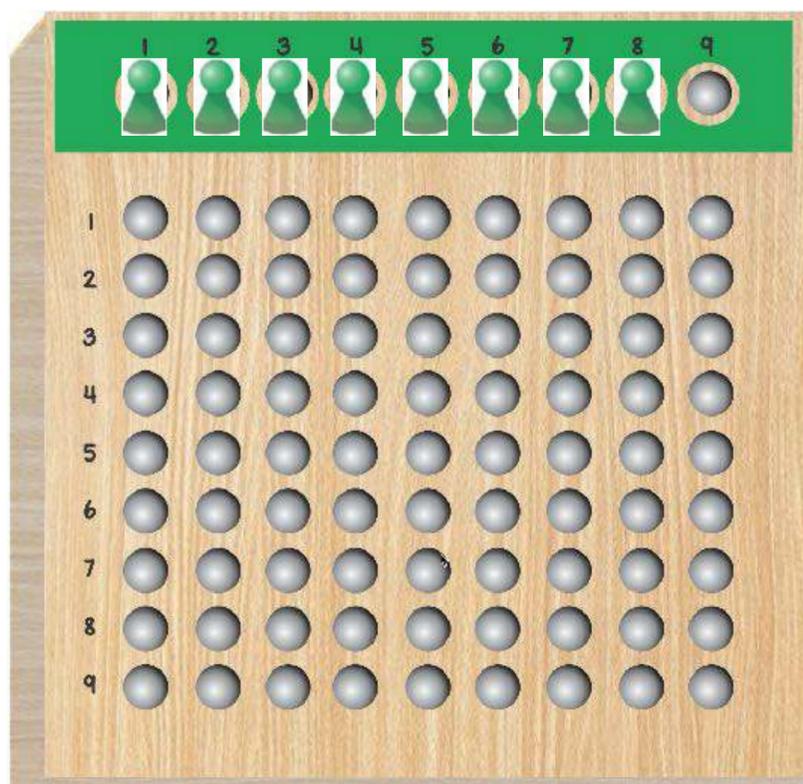
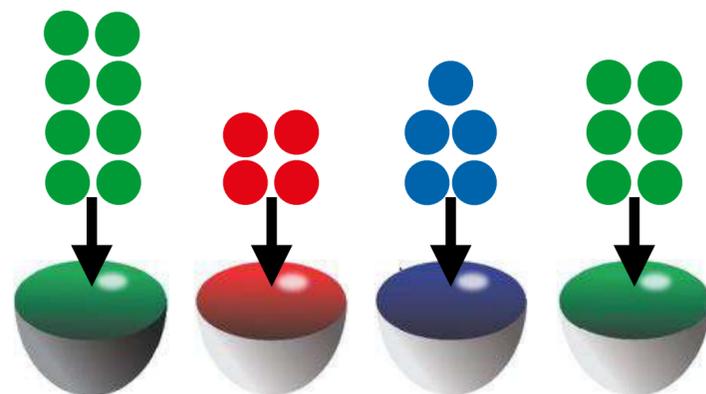
We have 8 thousands, so we place 3 green thousand beads in the green and grey bowl.

It should look like the picture to the right.



Mathematics

Now we need to set up the divisor. The divisor is 8 units, so we need to set that up on the units board with our skittles. The board should look like the picture below:

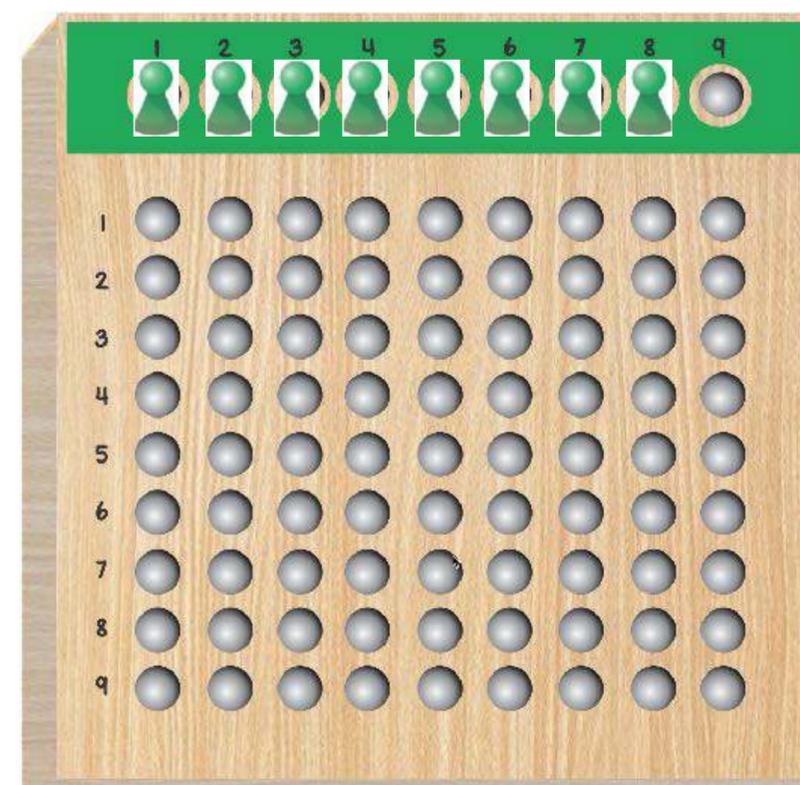
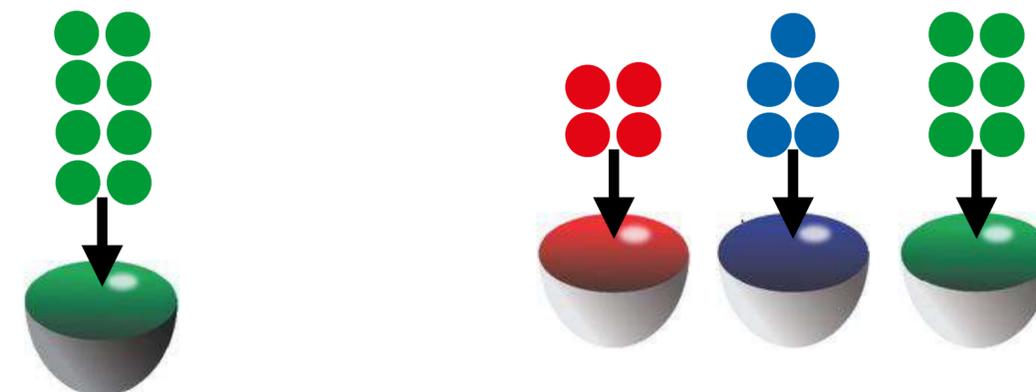


Now we can divide out our dividend, 8546, by the divisor, 8.

With division, we always start by dividing our highest hierarchy, so we place our thousands bowl above our board.

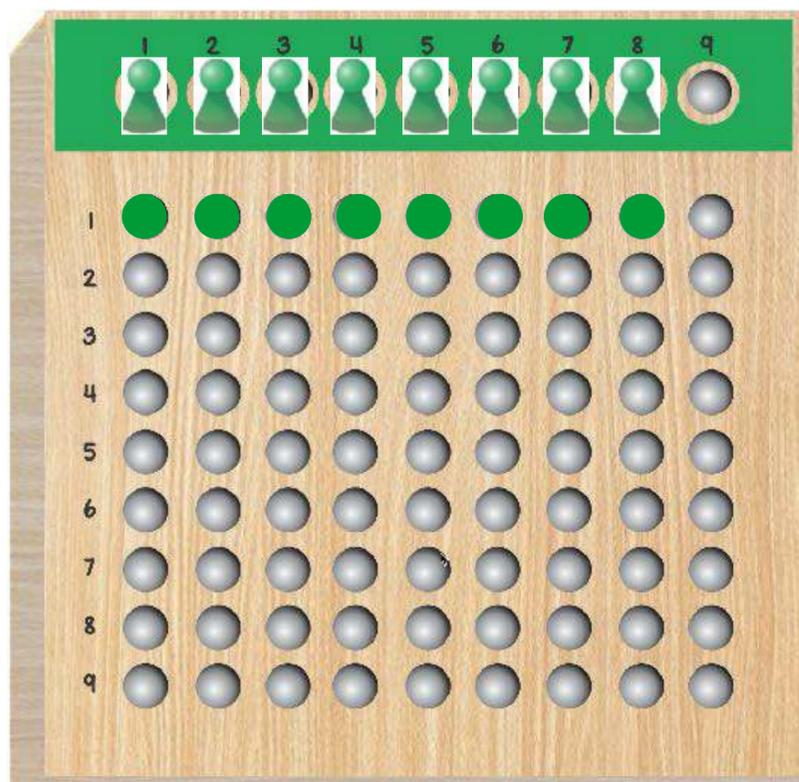
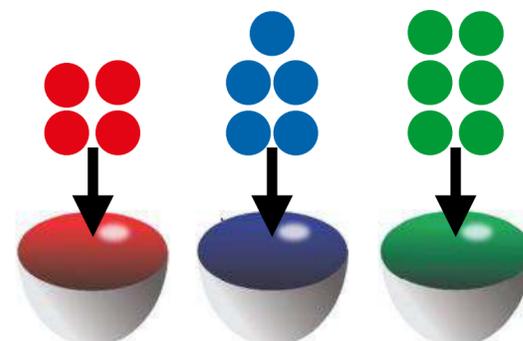
We need to place it in the starting position which looks like this.

Our other bowls stay on the right side in order.



Mathematics

Now we can place our beads onto the board.

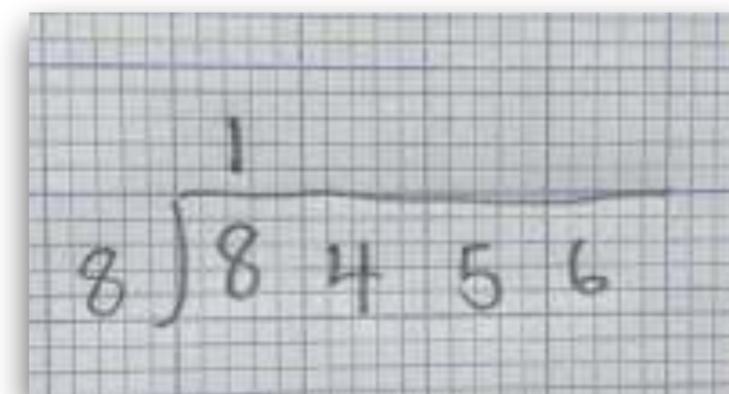


We have used all the beads in our bowl.

We know the answer is what one skittle receives, which we can see here.

It is 1.

The beads are thousands, so we can write 1 and place it in the thousand's column.



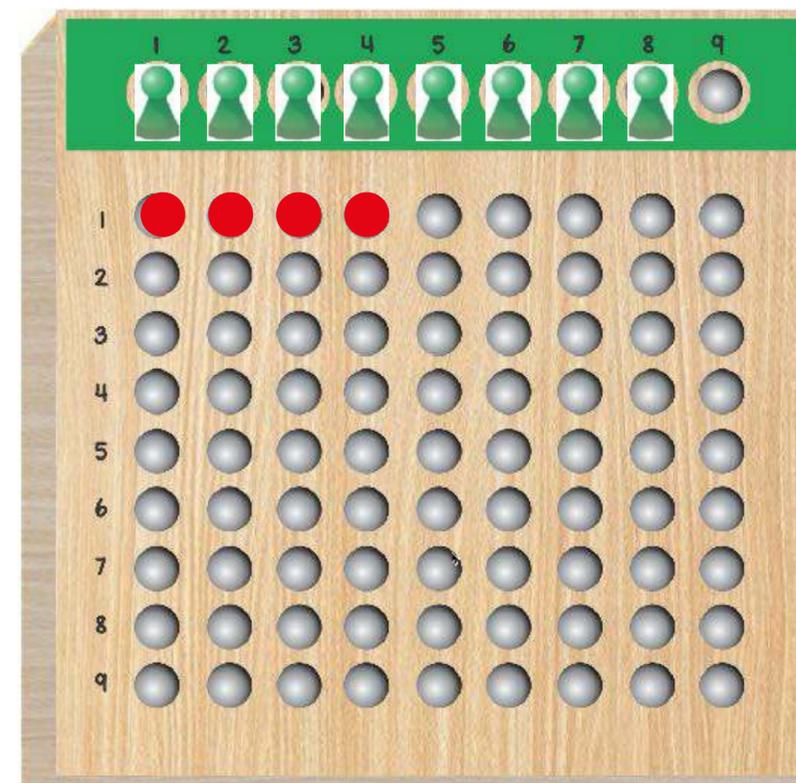
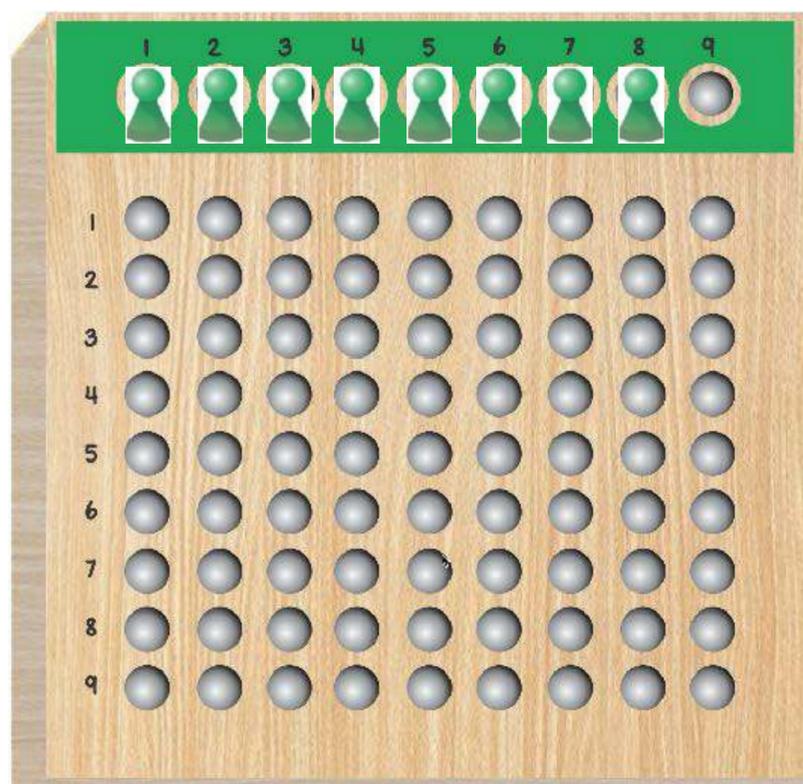
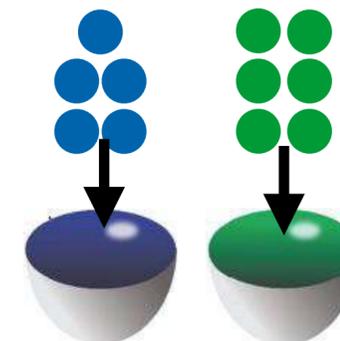
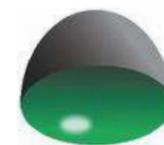
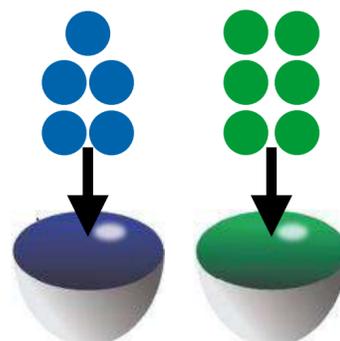
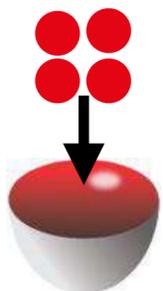
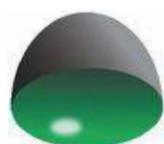
As the thousand beads that have been already been distributed, we no longer need them and we put them back into the tubes.

We put the green and grey bowl upside down and away to the top of the board.

Mathematics

1 As we have finished with the thousands, we move onto the next hierarchy - the hundreds. We place the red hundreds bowl above the board.

We can now divide the four hundred beads by our divisor (8). Place the red hundreds beads onto the board.



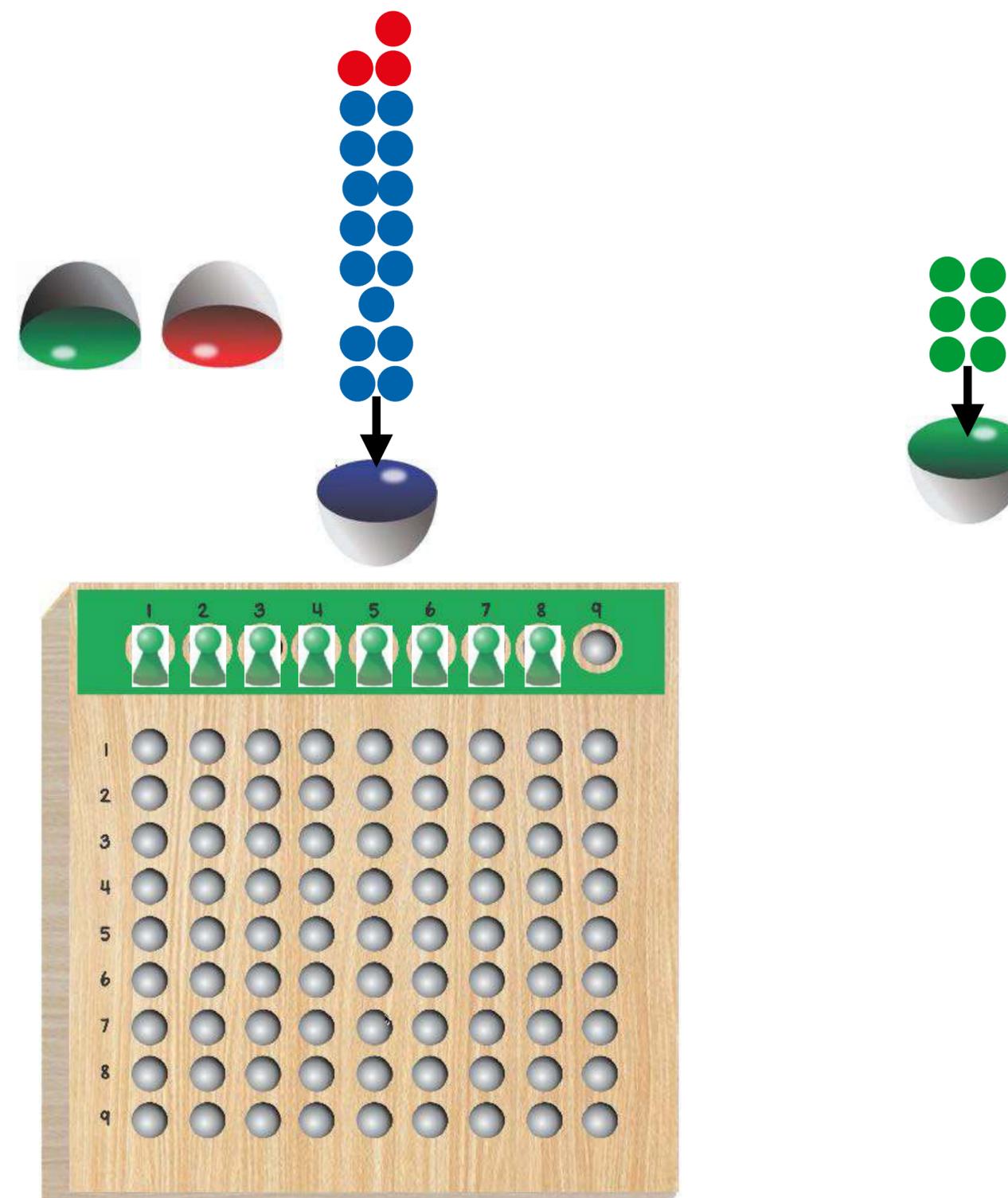
Mathematics

We know we have a rule:

We cannot divide beads that are not the same hierarchy as the bowl, therefore we need to exchange.

We know one hundred equals ten tens. So, we can put one red hundred bead back into a hundreds tube and exchange it for ten blue beads.

Place the red hundred bead back in the tube and place ten blue beads into the bowl.

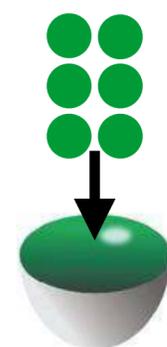
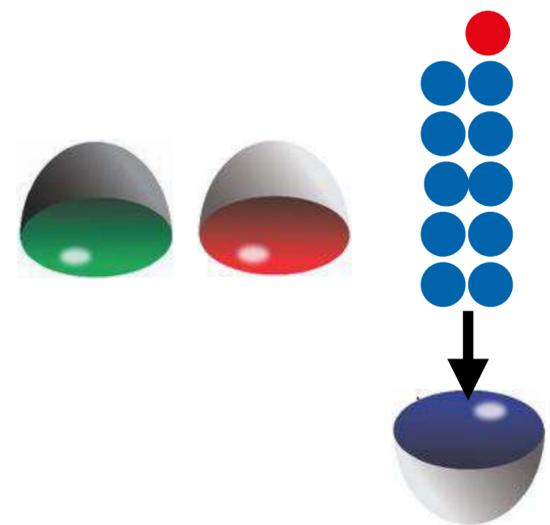
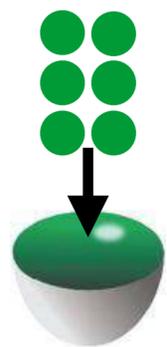
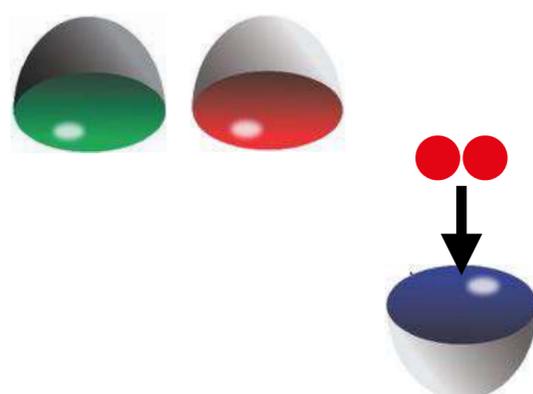


Mathematics



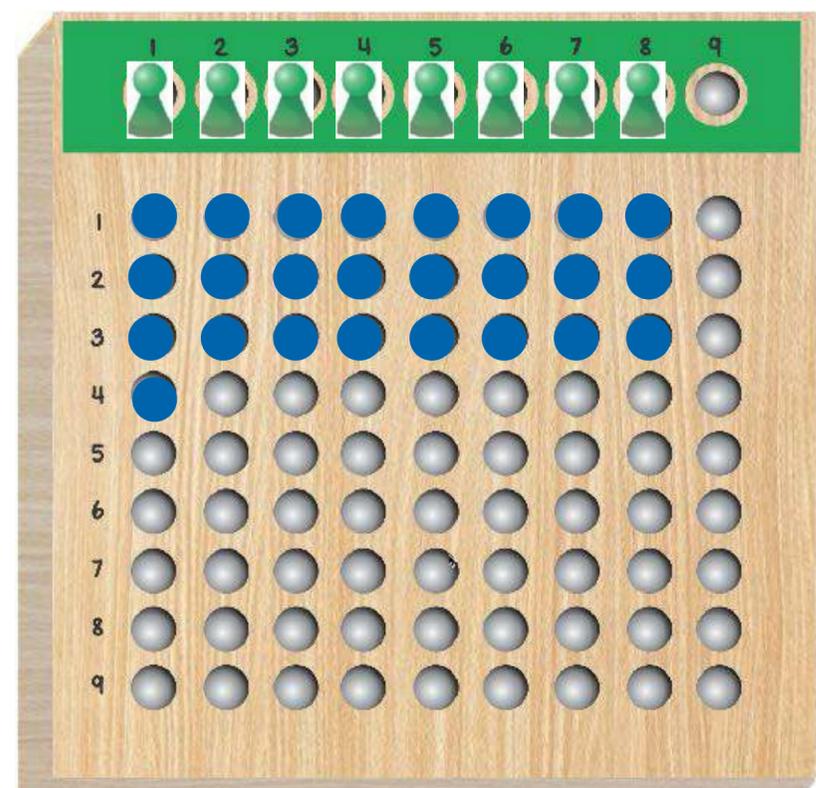
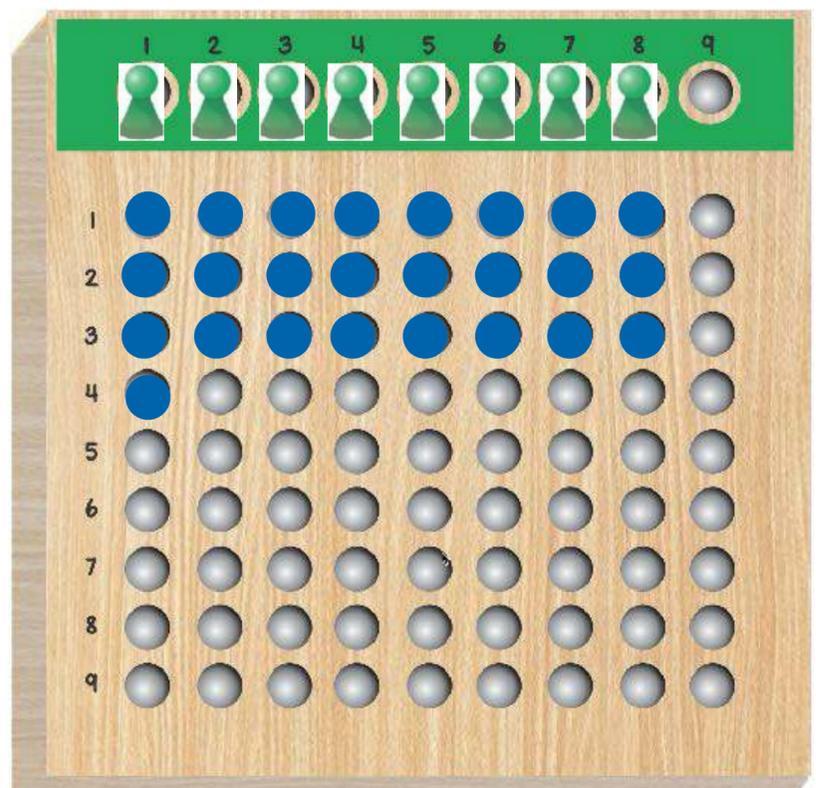
Now we can divide.

Place the blue beads onto the board.



We can keep going, but before we do that, we need to exchange.

Place a red bead back into the tubes and place ten blue beads into the bowl. We do this because one hundred can be exchanged for ten tens.

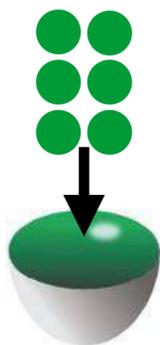
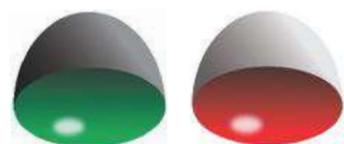


Mathematics



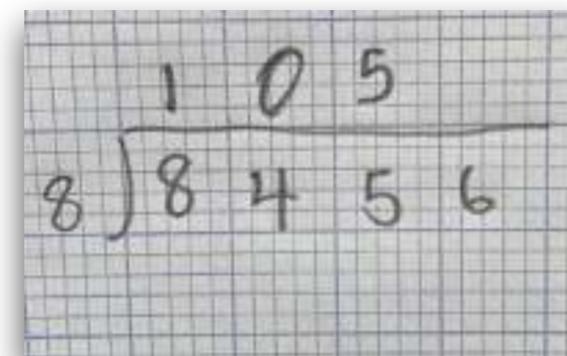
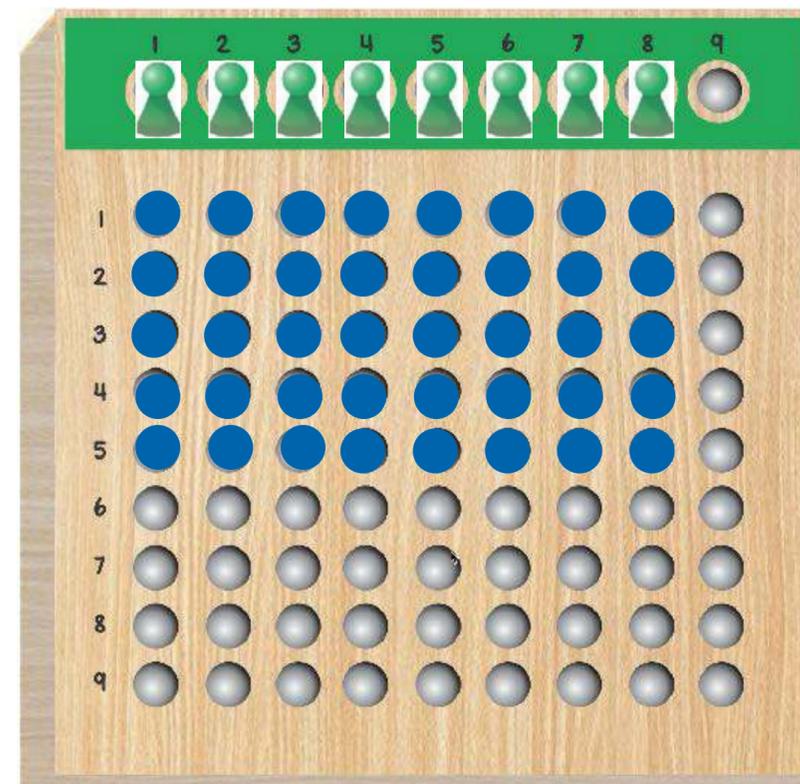
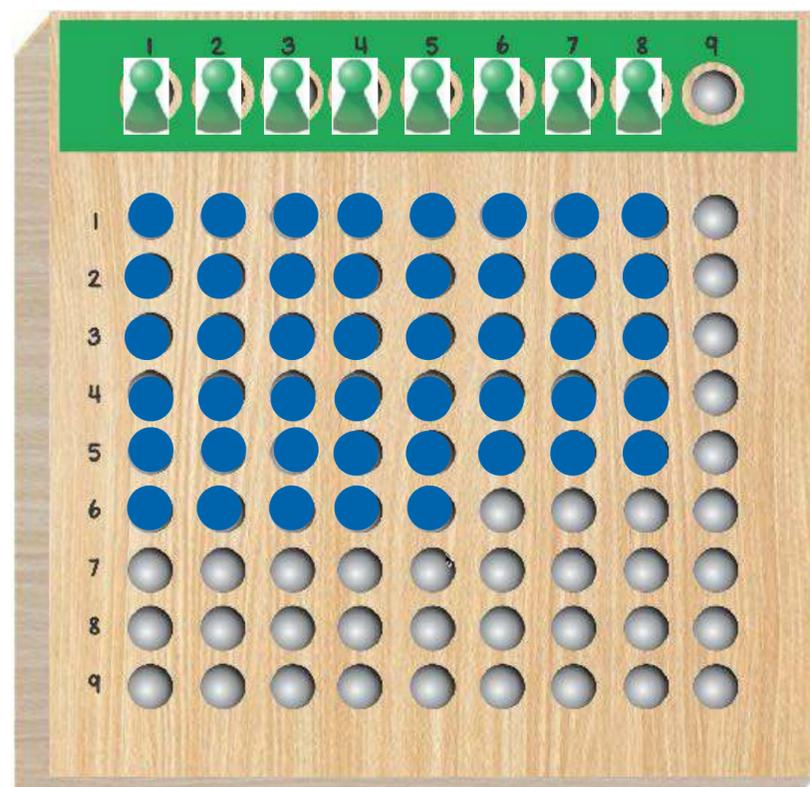
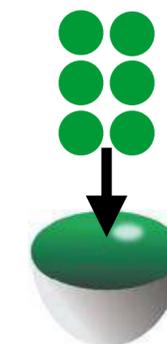
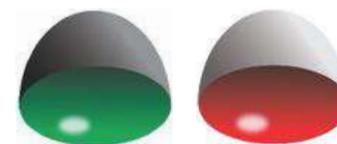
Now we can divide.

Place the blue beads onto the board.



We cannot make another full row.

Take the five beads and place them back in the bowl.



We know the answer is what one skittle receives, which we can see here. It is 5. The beads are blue which represent tens, so we know we write 5 in the ten's column.

Mathematics

Now we need to clear the board.

As we used these beads on the board, we can put them back in the tubes.

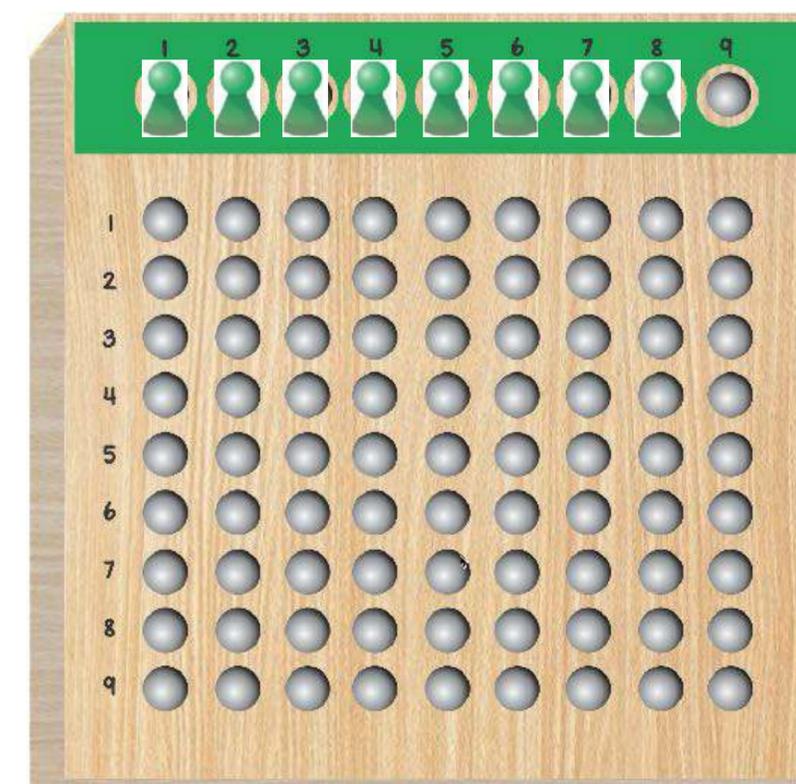
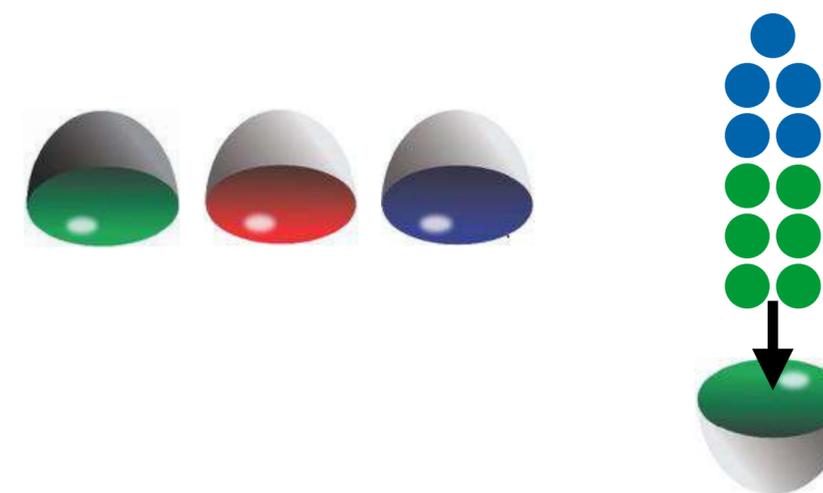
Place the beads on the board back into the tubes.

Now we can move onto the units.

We can see we have five tens remaining, so we can place it in our units bowl.

Place the blue beads that were left in the blue bowl into the green bowl.

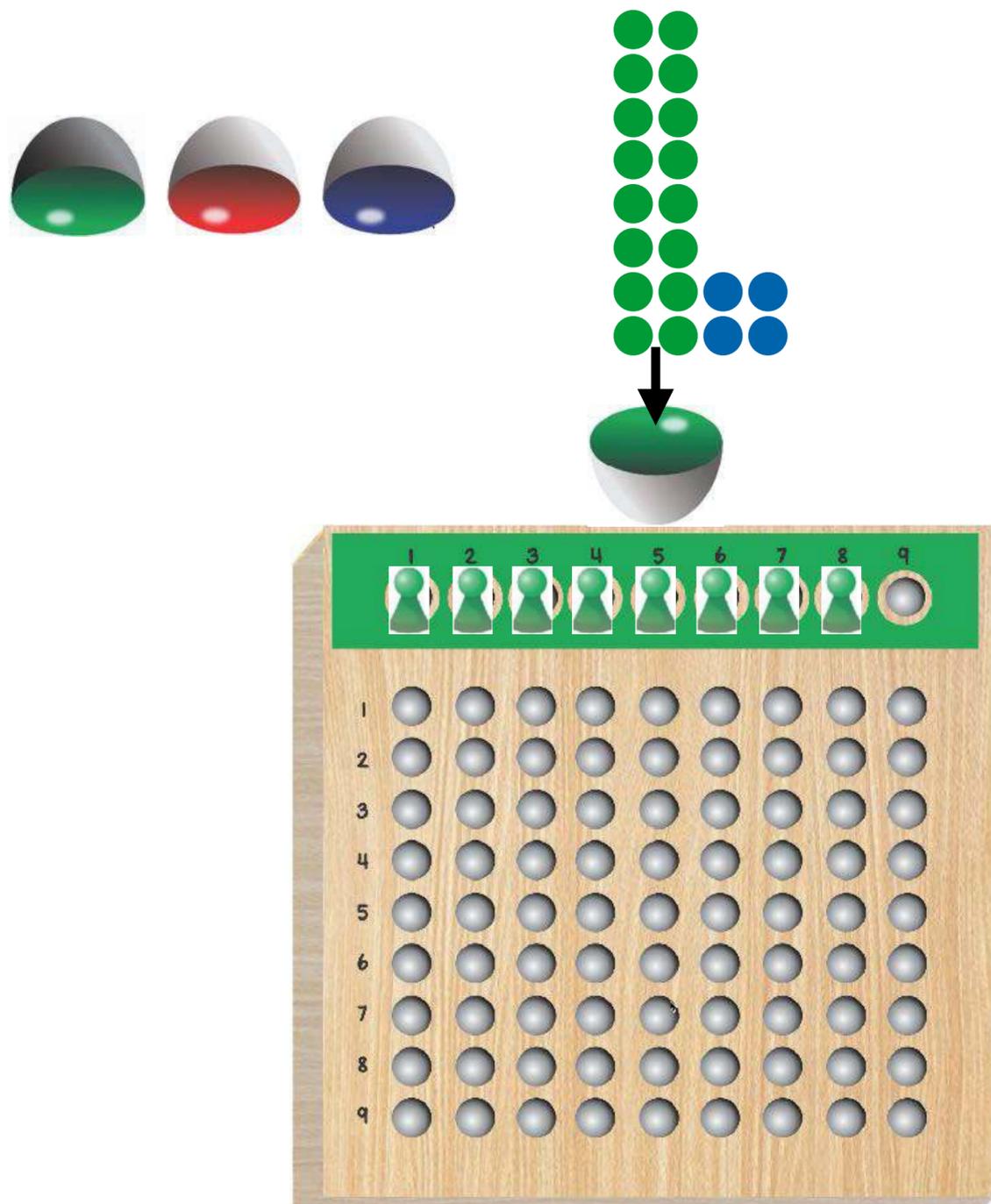
Place the green bowl above the board.



Mathematics

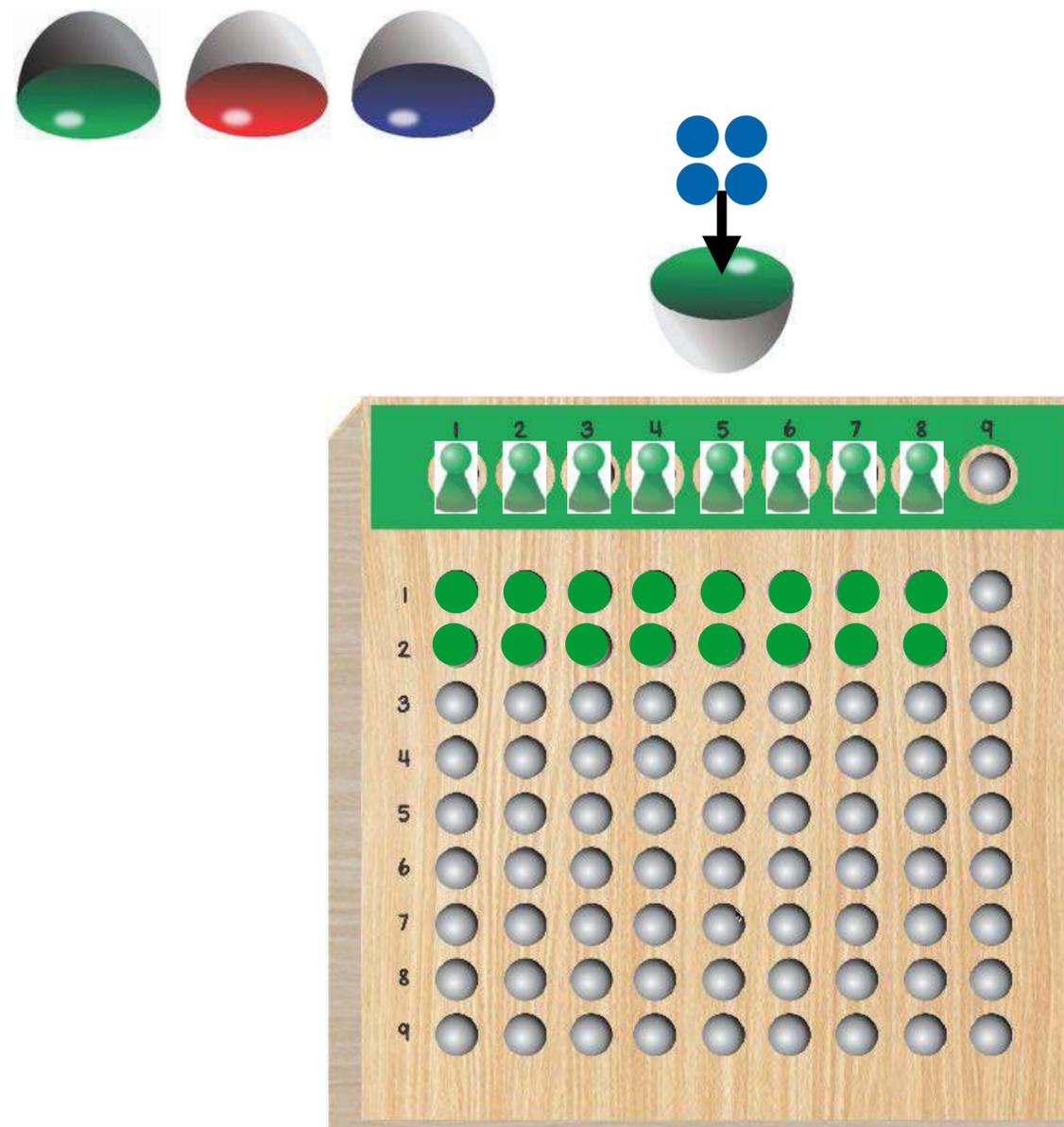
We need to divide as we know the rule. We cannot divide beads that are not in the same hierarchy as the bowl, therefore we need to exchange before we divide.

Place one ten back into the tube and exchange this for ten green beads. We do this because one ten equals ten units.



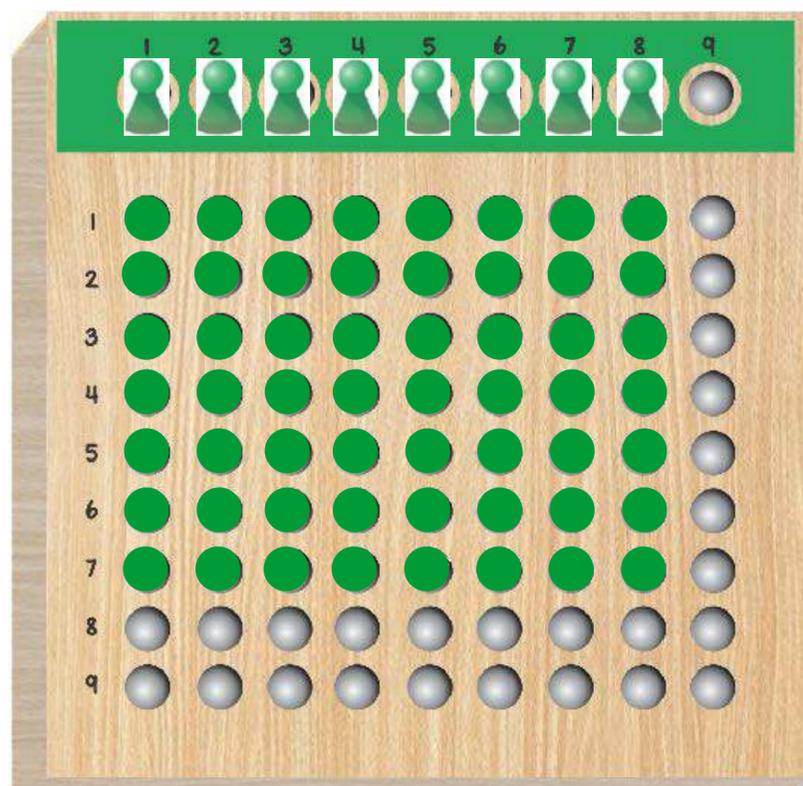
Now we can divide.

Place the green beads on the board.

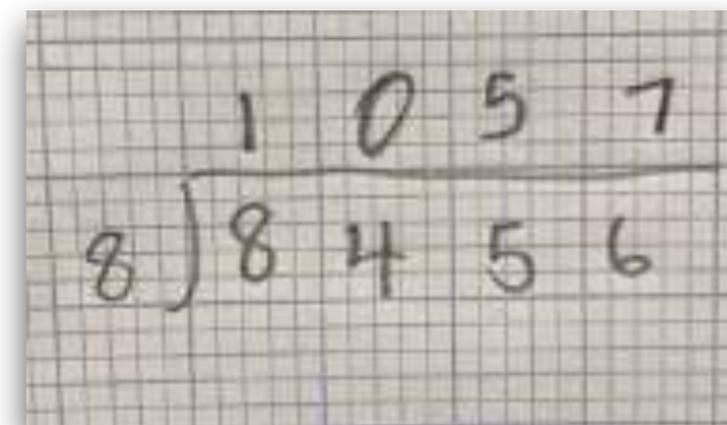


Mathematics

We keep on exchanging as done before until we get to the final answer.



Our answer is 7. We can write that in the unit's column.



We have found our answer. 8,456 divided by 8 is 1,057.

Have a go making your own problems!

If you have moved on to dividing with two or three digit divisors, or even more, at school, have a go making larger problems. In this case, we use a tens and hundreds board to place our skittles on.



Mathematics

Quick Math Activities

Look at the rules and instructions for these games in the **Appendix** section.

<p>Multiplication Bingo</p> <p>Have a fun time working out multiplication and working through your number board!</p>	<p>Salute</p> <p>Use your math skills to work out your mystery number!</p>	<p>Higher or Lower</p> <p>Are you good at guessing numbers? Try this game to see how well you know your numbers.</p>	<p>Math Splat</p> <p>Test your math facts recall with this fast paced game of memorisation.</p>	<p>Flipping Place Numbers</p> <p>This is a game of chance and number knowledge.</p>
<p>Memo</p> <p>Memorise you timetables and practise this every day.</p> <p>Maybe you could give a friend a quiz and they could quiz you over Zoom or the phone?</p>	<p>Measurement</p> <p>Use a ruler to measure objects in your house and record them.</p> <p>You could convert them. For example, measure an object in centimetres <i>and</i> millimetres.</p> <p>Have you ever wondered why we have a standard metric system? Would you like to hear a story on measurement?</p> <p>Listen to this Ted Ex Story</p>	<p>Code Breaker</p> <p>Try out this code breaker (Appendix) or make your own code for a friend to break!</p>	<p>Roman Numerals</p> <p>Research and learn the roman numerals. You could even make your own roman numerals board like we have at school.</p> <p>Complete addition and subtraction using roman numerals.</p>	<p>Dice Game</p> <p>A fun way to use dice to memorise your math facts!</p>



Spelling Rules

Rule One:

The magic fairy 'e' changes short vowel sounds into long vowel sounds.

For example, 'can' becomes 'cane'. The 'ah' sound becomes an 'ay' sound.

Rule Two:

The consonants 'f', 'l' and 's' are doubled at the end of most words of one syllable.

For example ball, off and kiss.

Rule Three:

'q' is generally followed by a 'u'

For example quick, queen and quack.

Choose a rule and see if you can find words where that rule applies. Make a list of words where the rule applies. You can make a little booklet, create the words using the movable alphabet template (see Appendix), a poster or choose your own creative way to express it.

Throughout the week you can choose any of the rules and repeat the activity as follow up work.

Extension 1

Write the rule in your own words. If you were trying to explain the rule you chose, how would you explain it?

Extension 2

Some words don't follow the rules when they should. Find the exceptions to the rules and research why that may be.

Extension 3

Did you know all of these rules? Find and research your own spelling rules.

2

Language

Grammar Activities

The grammar work for this week is to read through a story and then look at the words in it. Think about the parts of speech that you have had lessons on and worked on.

Read through one of the [fairytales by the Brothers Grim](#).

Depending on which Grammar Box you are up to, you can explore the following in the story:

- Articles
- Nouns
- Adjectives
- Verbs
- Prepositions
- Conjunctions
- Adverbs
- Pronouns
- Conjunctions
- Interjections



Here are two activities that you can do:

1. Symbolise your favourite part of the story if you know the symbols. Otherwise, you can write what kind of word it is above the word.



"What does a frog want with you?"

2. Make a word list using the part of speech of your choice. For example: Write a list of all the nouns you can find in the story.

See the **Appendix** for the symbols for the different parts of speech and their definitions and examples.

Extension 1

Choose a part of speech and write a definition of it. Write sentences that include the part of speech you chose.

Extension 2

Choose a part of speech and write about why it's important in grammar. What would happen if we didn't have that part of speech?

Extension 3

Symbolise two different kinds of writing. For example, a fairy tale and a non-fiction text. Do you see any differences in the kinds of words you can find? Were there more adjectives? More verbs? More nouns?



Reading and writing: Choose your activity

2

<p>Writing Prompts</p> <p>Visit Pobble 356 and use the images on the page as a creative writing prompt.</p> <p>What kind of story/poem/song can you write to go with the picture?</p>	<p>Pass Back Stories</p> <p>An interesting way to tell a story on the spot!</p> <p>See Appendix for how to play the game.</p>	<p>Tell me who I am</p> <p>Each person chooses someone and describes that person. They could describe their appearance and their accomplishments. The other players have to guess who that person is.</p> <p>Can you guess who's being described?</p>	<p>Make up your own holiday</p> <p>Think of a holiday you really like. Now, make up your own.</p> <ul style="list-style-type: none"> - Choose a day in the year - What is your holiday about? - What do people do to celebrate it? - Why is it important? 	<p>Sound Word Game</p>
<p>Cursive</p> <p>Make sure you are practising your cursive every day. Have you ever heard of calligraphy? You could research and learn calligraphy as well!</p>	<p>Syllables</p> <p>Go for a walk around the house, garden or even around the neighbourhood and pick some words. Clap and count the syllables in each word. Can you find an object with more than five syllables?</p>	<p>Labels</p> <p>Label objects around your house or garden. If you aren't sure how to spell a word, use a dictionary.</p>	<p>Creative Writing</p> <p>Take a photo of something interesting and write a story about it.</p>	<p>Sign Language</p> <p>The sign language in Australia is called <u>Auslan</u>. You could learn the alphabet and some common greeting signs</p>

2 Language

Planning and Editing:

Outline for Writing a Story or project

Step 1: Gather resources: Read resources in books or online and makes notes. (Small sentences, paragraphs and the facts).

To guide this the child can think of questions they already know (and you can make some up as well), etc.

Or plan the story out (we can send you a template for this if you need).

Encourage own words: You can tell them a story about plagiarism and how they would feel if others copied their work.

Step 2: Read the draft and edit it, for the final copy. (punctuation, grammar and spelling). As we follow the child in Montessori, punctuation and grammar are taught organically in editing. Once a child has finished a language task, story or research task, take some time to edit it with him or her. Not everything needs to be edited all the time, but when you find the time to do it; it's an essential learning experience.

Step 3: Plan how you would like to set out the project. On card or in a booklet, etc.

Step 4: Create the final couple adding the facts or information. Add pictures. They may want to create or draw the maps, or he could do a model.

Editing: *When editing a piece of text, you need to:*

- *Check the text for meaning*
- *Ask yourself: 'Does that sentence make sense?' Check if the spelling is correct.*
- *Remove or re-write any words, sentences or paragraphs that aren't clear or don't make sense.*

Proofing: *When proofing a piece of text, you need to:*

- *Look for an correct any spelling, punctuation, grammatical or typing errors*

Proofing can include:

- *adding capital letters*
- *putting in end of sentence punctuation*
- *changing capitals to lower-case letters as needed*
- *take out a word or insert a word*
- *starting a new paragraph*
- *checking spelling.*



Botany and Zoology Studies

External Parts of an Animal - Fish

The children will get to know and understand the different parts of a fish in a focused study. All the children have had lessons on the external parts of a fish.

Children can choose a fish that they find interesting and write a short report on it. Answer the following questions in full sentences. The questions can be the headings for each section:

- Can this fish be a pet?
- Describe what the fish looks like.
- How long does the fish live?
- What is the lifecycle of this fish?
- How does it shelter itself?
- Where in the world does the fish live?
- What kind of water does this fish live in?
- What does the fish eat?
- How does the fish protect itself?
- How does it shelter itself?
- What are the babies of this fish called and how does the fish take care of its babies?
- Does the fish have predators?
- Does the fish prey on other animals?

They can also draw a picture of the fish and label its parts and write a short description of what each part of the fish is for. You could pay special attention to the parts of the fish that make it unique (e.g. large dorsal fin, venomous spines, etc).

Use the world map in the appendices to show where the fish lives.

Extension 1

Choose another fish from the same area as your original fish and compare them against each other.

- How are they different from each other?
- Is there anything that is the same between them?
- Do they get along in their area?

Extension 2

Choose another fish from different areas of the world.

- How are these animals different from each other?
- Why are they different from each other?
- How do you think they would get along if they ever met?

Extension 3

Choose two fish from two different areas that live in the same kind of area (e.g. both freshwater or both salt water).

- Do they have similarities and differences in how they live in their areas?
- Do they have special parts of their bodies that help them live in their areas? Are those special parts the same or different?
- Even though they share the same kind of area, why do you think they might be towards each other? Would they be friends or would they be unfriendly towards each other?

3 Botany and Zoology Studies

Leaves

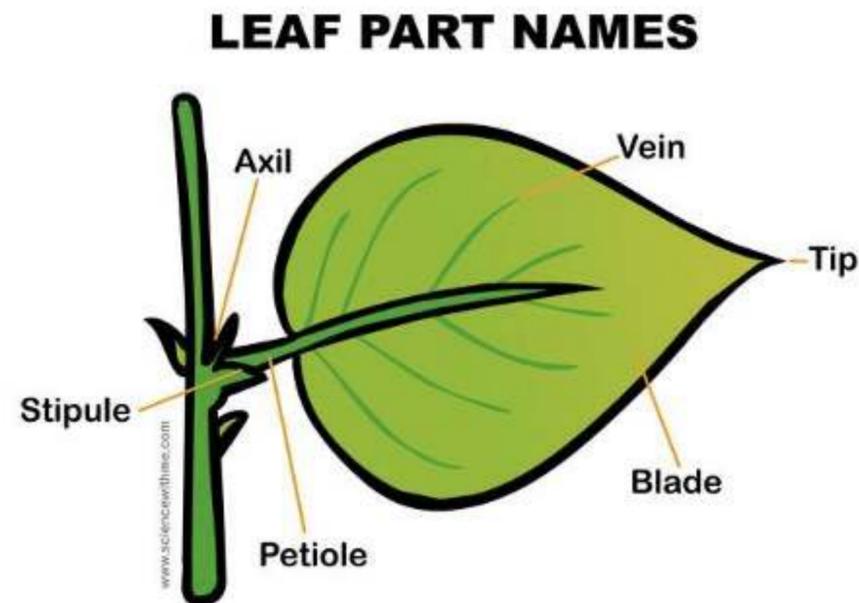
The Function of Leaves- The food factory!

The leaves of a plant come in various shapes and sizes, and they are vital to a plant's existence as they play one of the most important functions. Most plants are capable of making their own food but would be unable to do this without leaves.

Food is produced in a plant by a simple process called photosynthesis. This process collects energy from light and converts it to chemical energy.

The process of photosynthesis involves adding water and carbon dioxide to the captured light to convert it into chemical energy.

Label and draw the parts of the leaf using the template below.



Extension 1:

Have you noticed there are many different types of leaves? Some are long, some are short, some look like the palms of your hand? Pick a variety of leaves, draw them and label the different types.

You can find the names of the different shapes of leaves in the **Appendix**.

Extension 2:

Research photosynthesis and write a research report about the process.

Extension 3:

Research the 'stomata' and write the function of the stomata.

History

Fundamental Human Needs

In one sense, history is as grand as the universe, but we limit it to human beings, though not just civilisation.

The Fundamental Human Needs apply to **all** human beings. They are universal and are not tied to a particular people, place or time, or age. They are needs that must be fulfilled in order for a human being to feel secure and content in their lives. However, we differ enormously in how we satisfy these needs. What we have in common unites us, but it is also important to understand how we differ, why differ and what we differ in.

(See the Appendix for the Fundamental Human Needs Chart 1)

In order to understand our needs, create a chart that shows how you satisfy your Fundamental Human Needs. Use the chart in the Appendix as a guide.

Extension 1

Compare how you fulfil your Fundamental Human Needs to that of your parents.

- Were there any similarities?
- What were the differences?

For Extension 1 and Extension 2 activities, you will need to pick a time period to research. For example, the Ancient Egyptians, the Middle Ages, or modern Australia.

Extension 2

Choose two time periods and compare how they fulfil their Fundamental Human Needs. Use the chart in the Appendix as a guide.

Extension 3

- Imagine how people could fulfil their Fundamental Human Needs in the future.
- How do you think human needs might change over time and why would they change?
 - What could be the similarities?
 - What could be the differences?

5 Geography

Temperature affects viscosity

There are many things that can change the way things move. One of those things is temperature. Temperature can affect the ways things move because it affects the very molecules of a substance. In general, the warmer a substance is, the more quickly it will flow.

This is a practical activity to explore this and we will need the following:

Equipment:

- Honey or molasses
- Two plastic or smooth trays
- A block or brick
- Three similar containers (e.g. drinking glasses)
- Labels or markers

Method:

1. Put down the block or brick and set one tray against it so it sits at an angle. Put the tray down at the bottom so that the leaning tray is sitting in the other tray. See Appendix for set up.
2. Put a similar amount of honey/molasses into all three containers. Label the containers A, B, and C.
3. Put container A on a bench in the room, Put container B in the refrigerator, and hold container C in your hand around where the honey/molasses is.

4. After five minutes, put the different containers against the top of the tray and pour out the contents.

5. Observe and see which container's honey/molasses flows faster down the tray.

Conclusion:

Which container's honey/molasses flowed faster down the tray? Why do you think this was?

Extension 1:

Choose a different substance to repeat this experiment with. For example, you could try tomato sauce or mustard. Did you observe the same effect?

Extension 2:

You could mix two or more substances together and repeat the experiment. Did mixing substances change what you expected to happen?

Extension 3:

Repeat the original experiment but change the amount of time you put the containers in the fridge or in your hand. Did this affect how quickly you could observe the substance flowing? You could use a timer to keep track of the speed.

Geometry

Polygons

A polygon is a closed shape with straight sides. The word polygon comes from the Greeks, like most terms in geometry, which they invented. It simply means many (poly) angles (gon).

Listen to the story about polygons here:

[The Greedy Triangle](#)

Explore your house to find the different types of polygons you can find.

Classifying Polygons: Find the names and label the different types of shapes you've found.

Make some polygons: you could draw them and cut them out, make them using pipe cleaners or any material you can find at home. Be creative! Do you have a sewing kit at home? Perhaps you could cut material and sew some polygons?

Extension 1

Have you ever wondered what the name of a polygon with twelve sides is called? Research and see if you can find the answer. Make a booklet with the names of polygons with sides larger than ten.

Extension 2

Create your own memory game. Use the template in the Appendix to help with this.

Extension 3

What does the word 'regular' mean? What does the word 'irregular' mean? Using these words, describe what you think we might mean when we say 'regular polygons' and 'irregular polygons'.



7 Mindfulness and Wellbeing

In the classroom, the children have been doing activities to help them be more comfortable with themselves as well as with others. We have a few suggestions for mindfulness and wellbeing activities.

<p>Podcasts</p> <p>Listen to the 'Grow Your Mind' podcast</p>	<p>Make your own glitter jar Glitter jars are a great way to help calm yourself down or just help you unwind.</p> <p>Glitter Jar 1</p> <p>Glitter Jar 2</p> <p>Glitter Jar 3</p>	<p>Setting up a 'Me' space</p> <p>Set up your own quiet time area to do meditation, yoga, reading or mindful colouring in.</p>
<p>Drawing</p> <p>Draw your family and friends doing the things you love doing together. Don't forget to share them.</p>	<p>Yoga</p> <p>Do some yoga to calm your mind and body</p>	<p>Meditation</p> <p>Do some meditation to calm your mind and body.</p>
<p>Be a Friendship Ninja</p> <p>Sign up to the free 'UR STRONG' healthy relationships resource centre for lots of great activities, videos and resources.</p> <p>Use the coupon code URSTRONG</p>	<p>Keep Connected</p> <p>Make a message in a bottle for a friend</p>	<p>Healthy body Healthy Mind</p> <p>Make a delicious immunity boosting smoothie with fruit, veg & water, chuck in some ginger to really fight off those germs!</p>



8 Daily Physical Activity

Daily Physical Activity Aim for 60 minutes or more a day of activities you find fun Feel free to mix and match or make up your own ones and share what you have done			
Be Inspired Get active and try an awesome sports activity or dance routine designed by the <u>children</u> of FMS	Rainy Day Make an indoor obstacle course	Silky skills Find an online sports tutorial and dazzle your team mates once the season is back on. Try	Let's Dance Choose a word in your favourite song, every time you hear that word see who can sit on the floor first.
Beep Test Download a beep test app, set yourself a marker to run to and get there before the beep - see what level you can get up too.	Body Balance See how long you can stand on one leg for, then the other leg. Too easy? See what you can balance on your body while standing on one leg.	Target Setting Set yourself an exercise target for the next 2 weeks then give yourself a high 5 when you achieve it!	Time Trial Find some wide-open space to ride your bike, scooter, skateboard, roller blades or Unicycle around in a loop. Time yourself, then try and beat your own time!
Help out and Get Healthy Put the washing basket away from the clothes horse and run back and forth hanging the washing as quickly as you can.	Mission Impossible Design an Obstacle course where you can't touch any of the obstacles.	Challenge 15 How many 15 minute activity challenges can you complete?	Terrific Teamwork Get mum or dad away from their screens and play a game with them



Artist Study: Picasso

"Every child is an artist. The problem is to remain an artist once they grow up." *Pablo Picasso*

Children will investigate the work of artist Pablo Picasso looking at different art movements and styles he was famous for. They will create their own Picasso inspired art pieces by exploring the same subject matter and visual elements in his work. They will experiment with the art formal elements Line, Colour and Shape through their own responses to the work of Picasso.

Before you start please check out this child friendly introduction to [Picasso](#) on on the Tate Gallery Website.

Activity 1: Exploring Line Picasso Style

- Draw as many different types of line as you can think of and label them - e.g. Bold, Sharp, Zig Zag, Curved, Thin....
- Picasso had a special relationship with his dog and he drew him using only 1 line - try drawing Picasso's dog, your own pet or an animal of your choice using lines only
- Picasso often used bold black outlines or colourful flowing lines - create your own original picture using line inspired by a Picasso artwork of your choice.

Activity 2: Cubism and Collaging Shapes

- One of his most famous periods is the cubist period. Cubism is when the artist paints an object, from lots of different angles all in the same picture. Draw the same object from lots of different view points
- Cut up your drawings into different shapes, colour them in and collage them all together to create an original cubist masterpiece.

Activity 3: Moody colours

- Mix up a variety of colours and shades using pencils, pastels or paint. Write down a mood that matches with each of those colours.
- Picasso's used lots of Blue and Pink in his early paintings from the Blue period and Pink period - make your own picture using different shades of just one colour. How does colour effect the mood of your painting?

Activity 4: Artist study

- Make a booklet or poster of your Picasso inspired artwork
- Research the artist and try and find out: Who, What, Why, When and How?
- Find your favourite Picasso artworks and draw, paint or make them



Everyday Drawing Challenge



Draw something different everyday - Simple!			
<p>Terrific toys</p> <p>Set up a scene with your toys and get sketching</p>	<p>It's only Natural</p> <p>Draw the detail on a leaf or parts of a plant.</p>	<p>Visit a gallery</p> <p>Go online and take a virtual walk around a gallery. Copy an artwork you like.</p>	<p>Fantastic food</p> <p>Draw something yummy.</p>
<p>Learn from a pro</p> <p>Check out this excellent tutorial from contemporary Australian artist Ben Quilty</p>	<p>Selfie</p> <p>Draw a self-portrait.</p>	<p>Unselfish</p> <p>Draw someone else.</p>	<p>Super Silly</p> <p>Make a silly face capture your true beauty.</p>
<p>Perfect your project</p> <p>Create a picture for a project you are working on.</p>	<p>Time's up</p> <p>Set a timer and draw a picture for 5 minutes, then 3 minutes, then 1 minute and finish of 30 seconds.</p>	<p>Freeze time</p> <p>Draw something that is moving.</p>	<p>Be inspired</p> <p>Ask a friend what their favourite thing is... then draw it.</p>



10 Appendices

Multiplication Bingo

What is needed:

- Grid paper, counters
- Small box
- Slips of paper
- At least two players.

Step 1: In this mathematical version of the game, all players write down 6 numbers on grid paper, which are multiples of a given times table. For example: if they were doing the 5 times table, they might write 10, 35, 45, 50 and 60.

Step 2: A third person can lead the game and call out multiplication questions from the chosen times table, or they can be written on cards, jumbled up in a pile for players to take turns picking and reading out.

Step 3: If the player has an answer to the question on their bingo board, they can cross it out. First person to cross out all their numbers is the winner.

For example:

We are going to look at the multiplication table of 5. On the card we have put down six products of the 5 times tables.

We can see that we have drawn slips that had 1×5 and 6×5 because the products for those times tables (5 and 30), or they have been called out, and have been marked off.

1×5	6×5
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 5	10	15
20	25	 30

10 Appendices

Salute

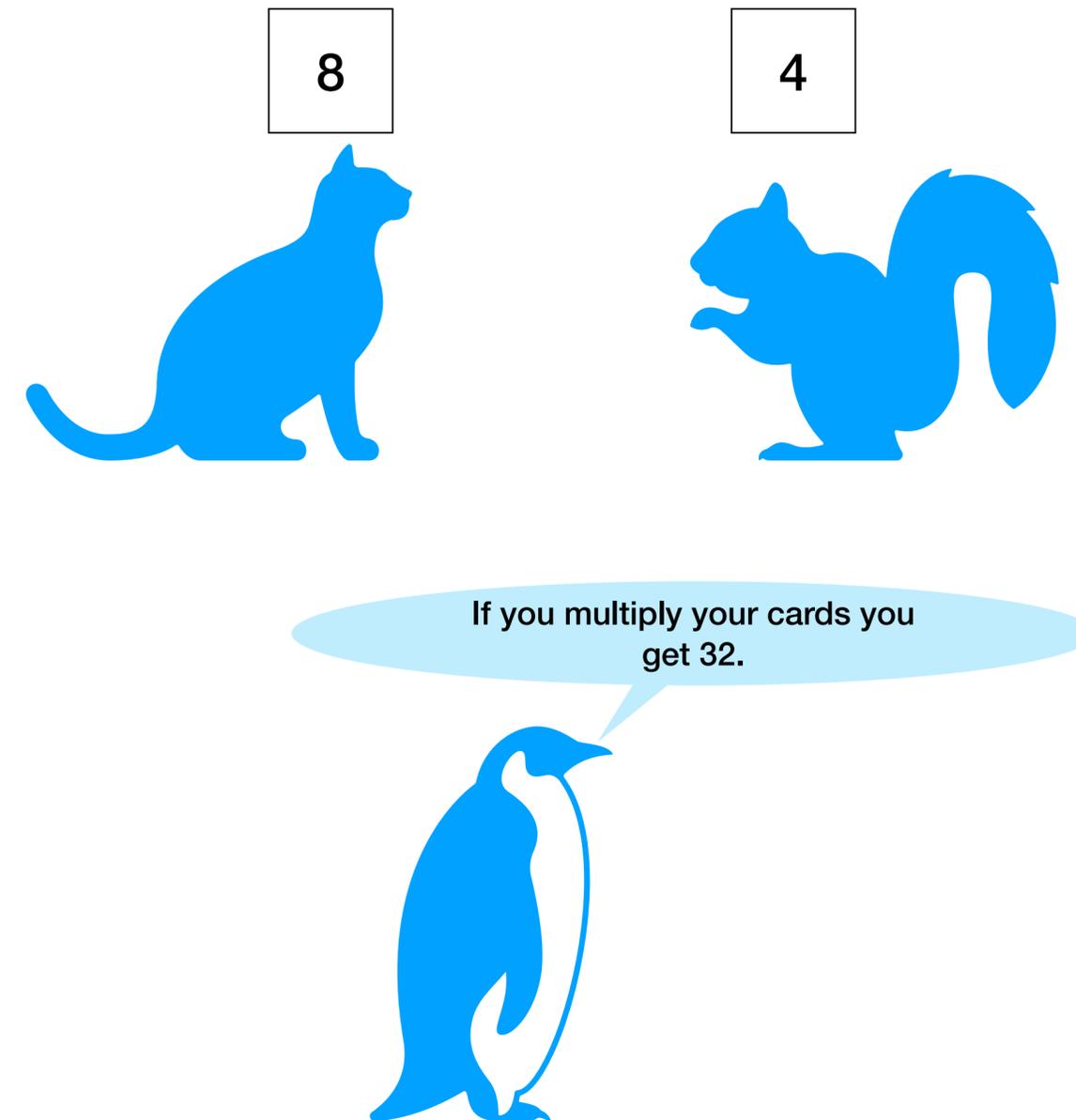
What is needed:

- Cards with numbers 1-10 written on them - two sets so there will be doubles
- At least three people

Step 1: The game starts with the two players facing each other. Each person selects a numbered card and sticks it on their forehead, so the other player can see.

Step 2: The person leading the game gives a statement, such as what the sum of the two numbers is (addition), the difference between the two (subtraction) or the product of the two (multiplication).

Step 3: Each player works out what number is on their own card, based on what is written on the other person's card and the rule given.



10 Appendices

Higher or Lower

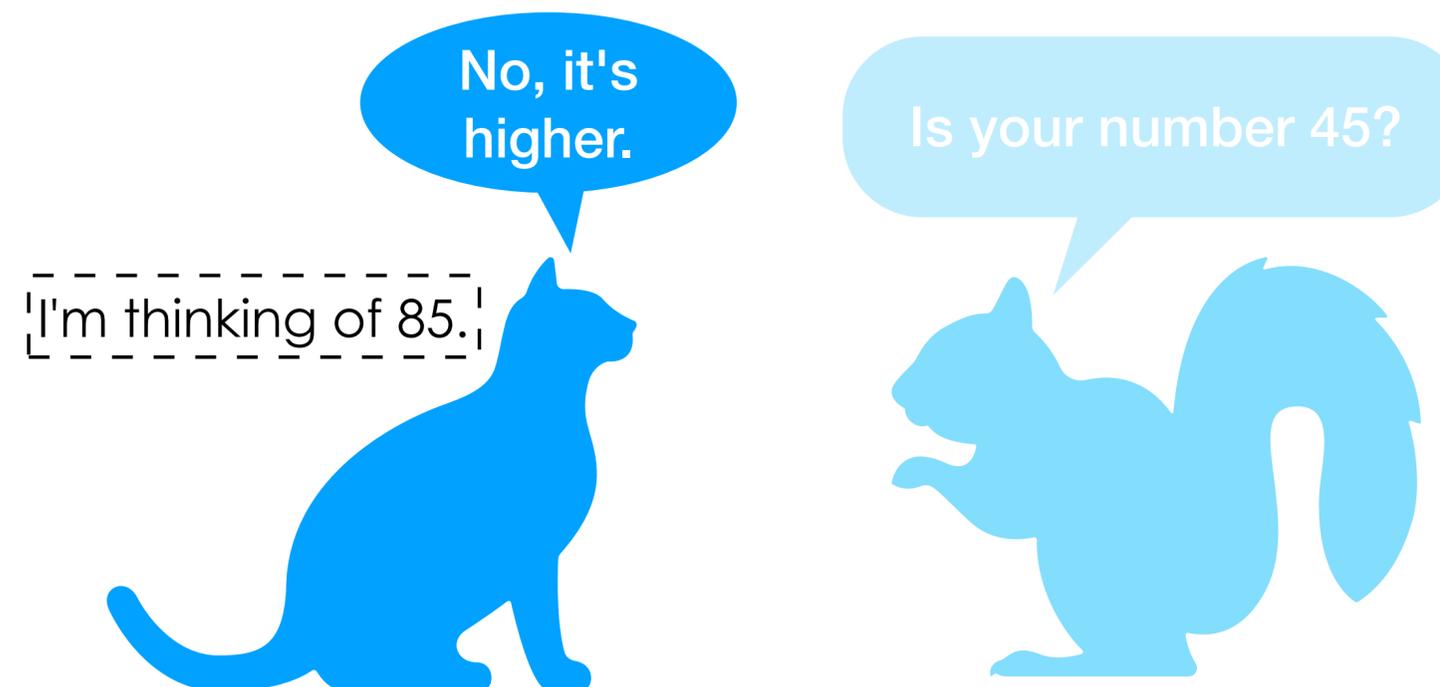
What is needed:

- At least two players

Step 1: One person thinks of a number – e.g. I'm thinking of a number between 100 and 200.

Step 2: Other person guesses the number. The person who is thinking of the number says if the number they are thinking of is higher or lower than their guess. They may also add details such as their number is odd or even.

Step 3: Guesser goes again until they either guess the number or give up.



10 Appendices

Math Splat

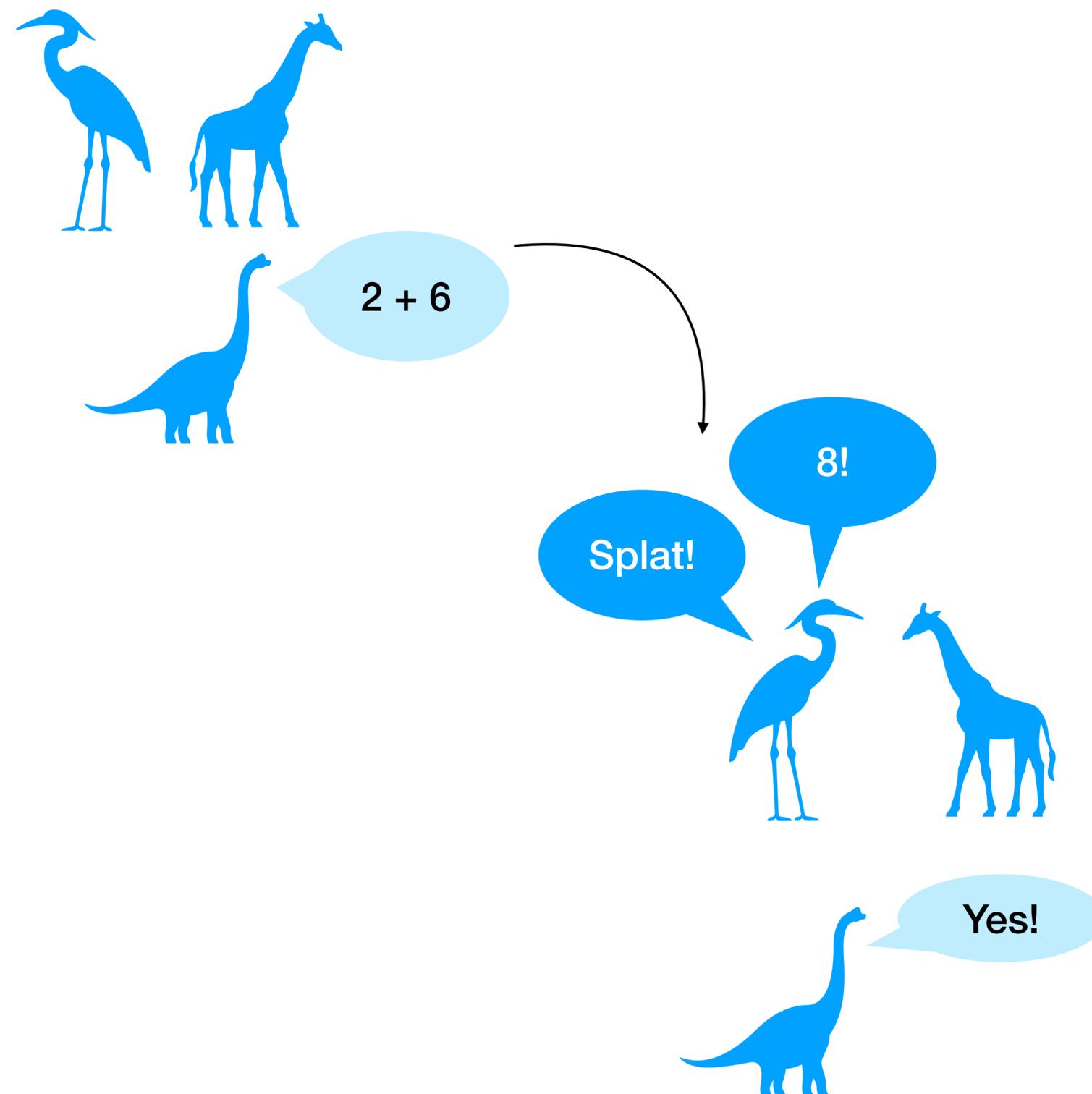
What is needed:

- At least three players

Step 1: One person is the adjudicator and they call out addition, subtraction, multiplication or division question.

Step 2: The other two players stand back to back and when the adjudicator asks the question, they have to turn around and say splat. Whoever says splat first will have the first chance to say the answer. If they get it right, they win that round. If they get it wrong, the other person gets a chance to say the right answer and if they are correct, they win the round. If neither person gets the answer right, it's a draw.

This can continue until a set number of wins has been reached or until they are no longer interested.



10 Appendices

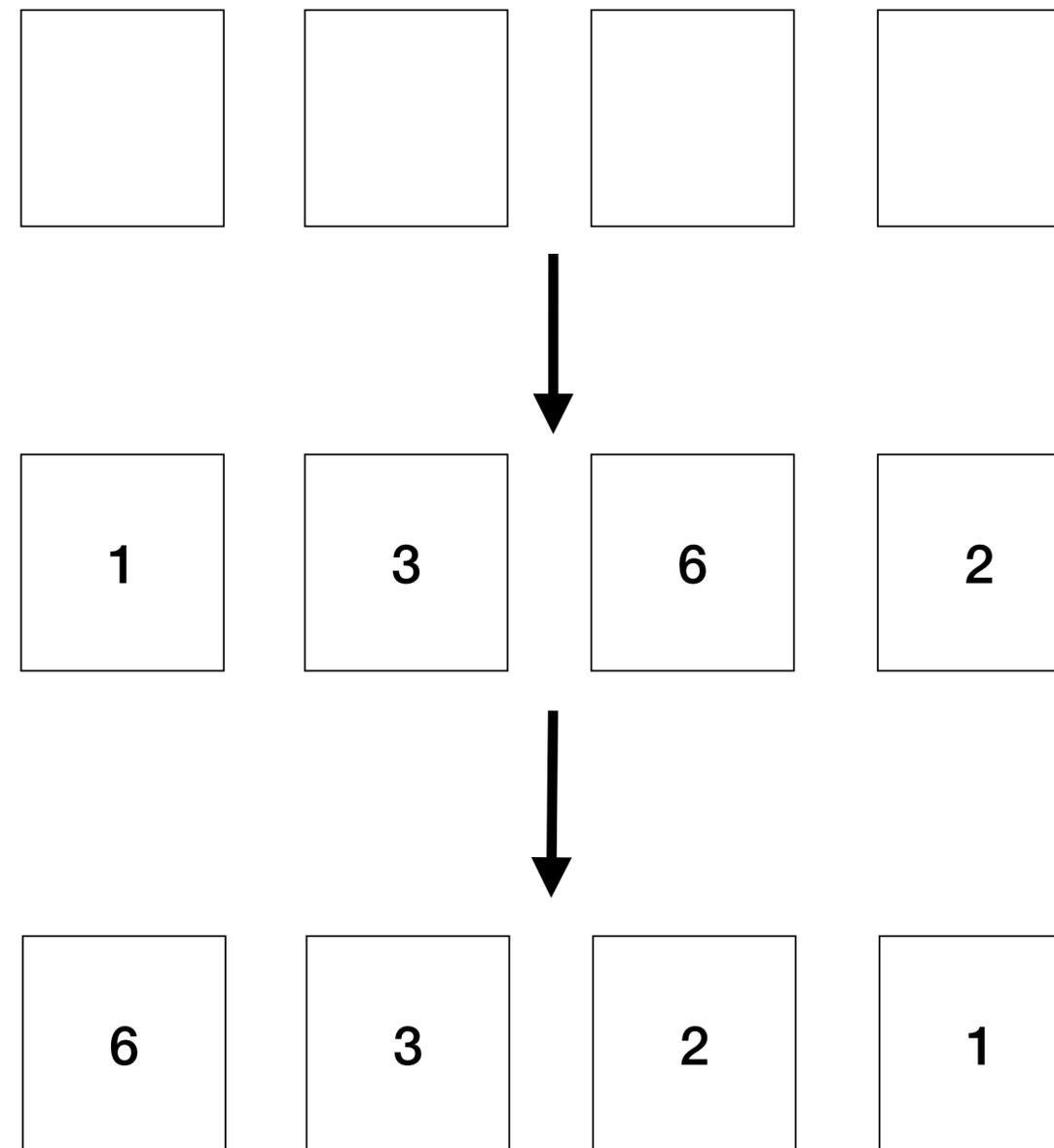
Flipping Place Numbers

What is needed:

- Two sets of cards with numbers 0 – 9 written on them.

Step 1: Each person gets one set of cards. They shuffle the cards face down and draw four cards from their own sets each. They set them face down and wait until both players have drawn their four cards each.

Step 2: They flip them over and then try to form the largest number they can from those four numbers. Whoever has the largest number wins that round. They continue to play until they reach a predetermined number of wins or until they feel as though they have played enough games.



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Code Breaker



CODEBREAKER



Complete the sentence ... "Maths is"

A	484
B	9 924
C	60
D	4
E	32
F	44
G	96
H	1 000
I	2171
J	6
K	9 024
L	16
M	21
N	10 000
O	184
P	8
Q	41
R	360
S	100
T	90
U	180
V	1 000 000
W	1
X	20
Y	175
Z	30

ANSWER CODE

12 + 9		
47 + 128		

89 - 45		
573 - 89		
One million in numbers		
8 x 23		
12 x 15		
Degrees in a full turn		
167 x 13		
450 ÷ 5		
128 ÷ 4		

10 ²		
720 ÷ 4		
10, 000 - 76		
¼ of 24		
2 ³		
50% of 120		
Degrees in a right angle		

220 ÷ 5		
11 ² x 4		
75% of 80		
2 x 5 x 3 x 3		

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Maths Dice

Step 1: Choose either addition, subtraction or multiplication.

Step 2: Roll the dice twice and record the two numbers.

Step 3: Choose a math operation and insert the numbers into it and find the correct answer.

For example, you roll a 4 and 5 and you choose to use them in an addition problem. You would then write $4+5 = 9$.

To make it harder use more than two dice and create double digit numbers, or even three-digit numbers!



$$5 + 6 = 11$$

$$6 - 5 = 1$$

$$5 \times 6 = 30$$



$$56 + 56 = 112$$

$$66 - 55 = 11$$

$$66 \times 55 = 3,630$$

10 Appendices



<i>y</i>						
<i>z</i>						
.
,	,	,	,	,	,	,
!	!	!	!	!	!	!
?	?	?	?	?	?	?

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Pass Back Stories

What is needed:

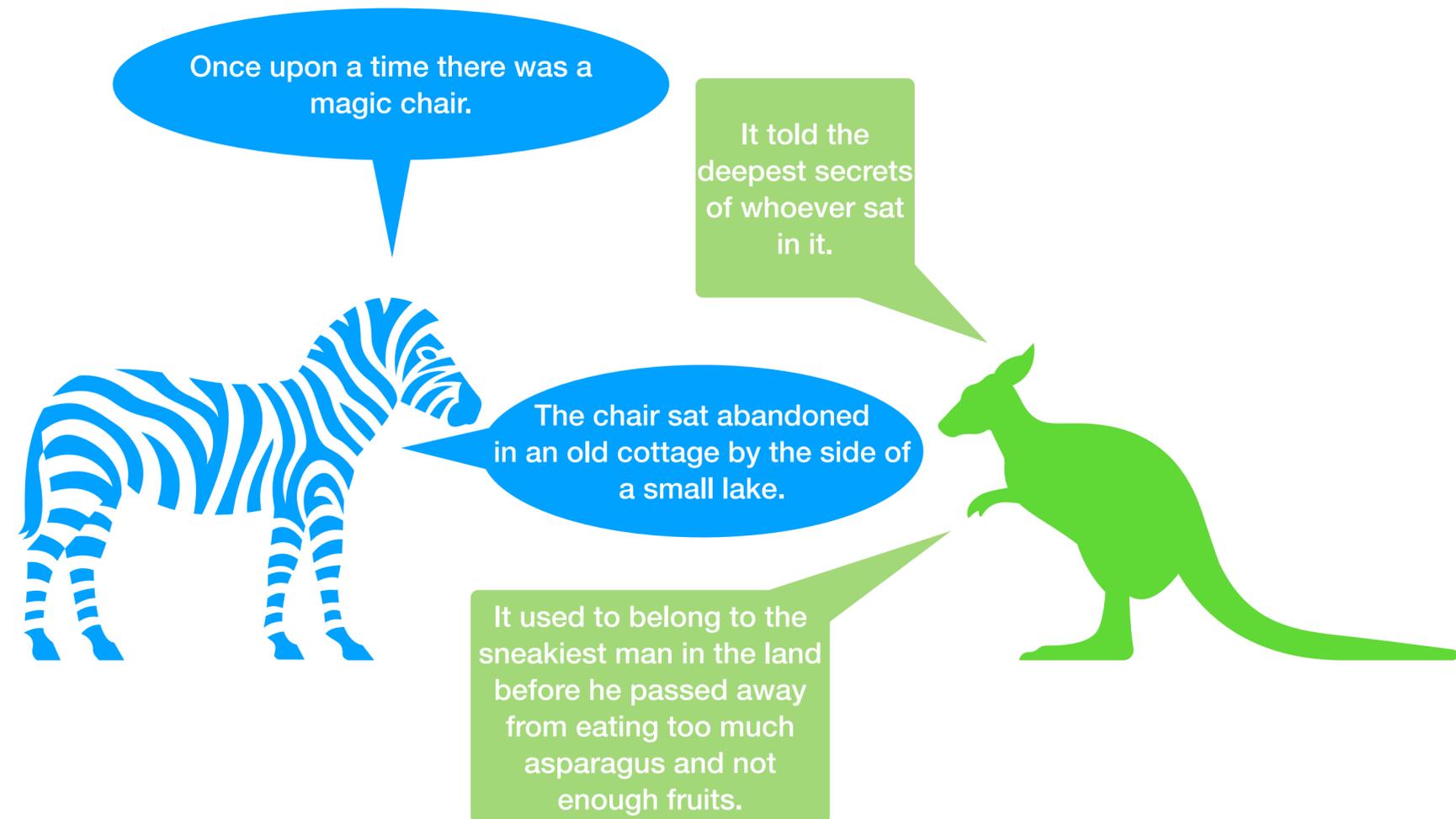
- At least two participants

Step 1: The first person starts the story off with a single sentence.

Step 2: The second person continues one with another sentence.

Step 3: The story continues by passing between the participants and they tell a story as they go.

The story can go on for as long or as short a time as people are willing to let it go for. It must have a conclusive ending, however.



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Grammar Nomenclature

	
article	noun
An article is any one of three words (a, an, the) that is used to show the presence of a noun.	A noun is a word that names a person, place, thing, or idea.
a	globe
a	pencil
an	apple
the	book
the	game

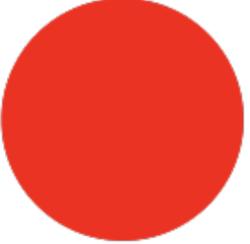
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Grammar Nomenclature

	
adjective	pronoun
An adjective is a word that modifies, or describes, a noun.	A pronoun is a word that can substitute for a noun.
pretty	I
heavy	you
smooth	she
cold	he
rough	it

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Grammar Nomenclature

	
verb	adverb
A verb is a word that expresses action, existence, or occurrence.	An adverb is a word that modifies (describes) a verb, adjective, or other adverb.
talk	loudly
jump	quickly
shine	brightly
laugh	boldly
walk	slowly

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Grammar Nomenclature

	
preposition	conjunction
A preposition is a word that shows the relationship of a noun (or noun phrase) to another part of the sentence, like a verb or other noun.	A conjunction is a word that connects other words, phrases, or sentences.
under	and
over	but
around	or
inside	for
outside	yet

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Grammar Nomenclature


interjection
An interjection is a word, phrase, or sound used as an exclamation that can stand by itself.
yes
no
wow
hey
ouch

Instructions:

These cards can be used many ways. After printing on cardstock and laminating, you can make 3-part cards by cutting apart the symbol, label, and definition. Or, for beginning students, you can keep the symbol and label together and have them match that to the definition.

For the examples of words, you can cut those apart and have the student put them under the symbol card by itself (or the symbol and label together).

For a beginning student, divide the cards into smaller groups. For instance, you can put articles, adjectives, and nouns together (the noun family).

Or, you can take just the noun and verb cards and have the student match those to each symbol.

For a more advanced student, they can match everything—symbol, label, definition, and examples of each kind of word.

The example cards are purposely not color-coded, as then the student uses the colors rather than the word as a guide.

Basic leaf shapes



Different leaf shapes



Sword-shaped
(*ensiformis*)
Long, thin,
pointed



Lance-shaped
(*lanceolata*)
Long, wider
in the middle



Ovate
(*ovata*)
Oval, with a
tapering point



Elliptic
(*elliptica*)
Oval, with a
short point



Round
(*rotundifolia*)
Circular



Cordate
(*cordata*)
Heart-shaped



Oblanceolate
(*oblanceolata*)
Top wider than
bottom



Spathulate
(*spathulata*)
Spoon-
shaped



Rhomboid
(*rhomboidalis*)
Diamond-
shaped



Lobed
(*lobata*)
With several
points



Spear-shaped
(*hastata*)
Pointed,
with barbs



Pinnatisect
(*pinnatifida*)
Cut, but not to
the midrib



Pinnate
(*pinnata*)
2 rows of
leaflets



Bipinnate
(*bipinnata*)
Each leaflet
also pinnate



Tripinnate
(*tripinnata*)
Each leaflet
divided into 3



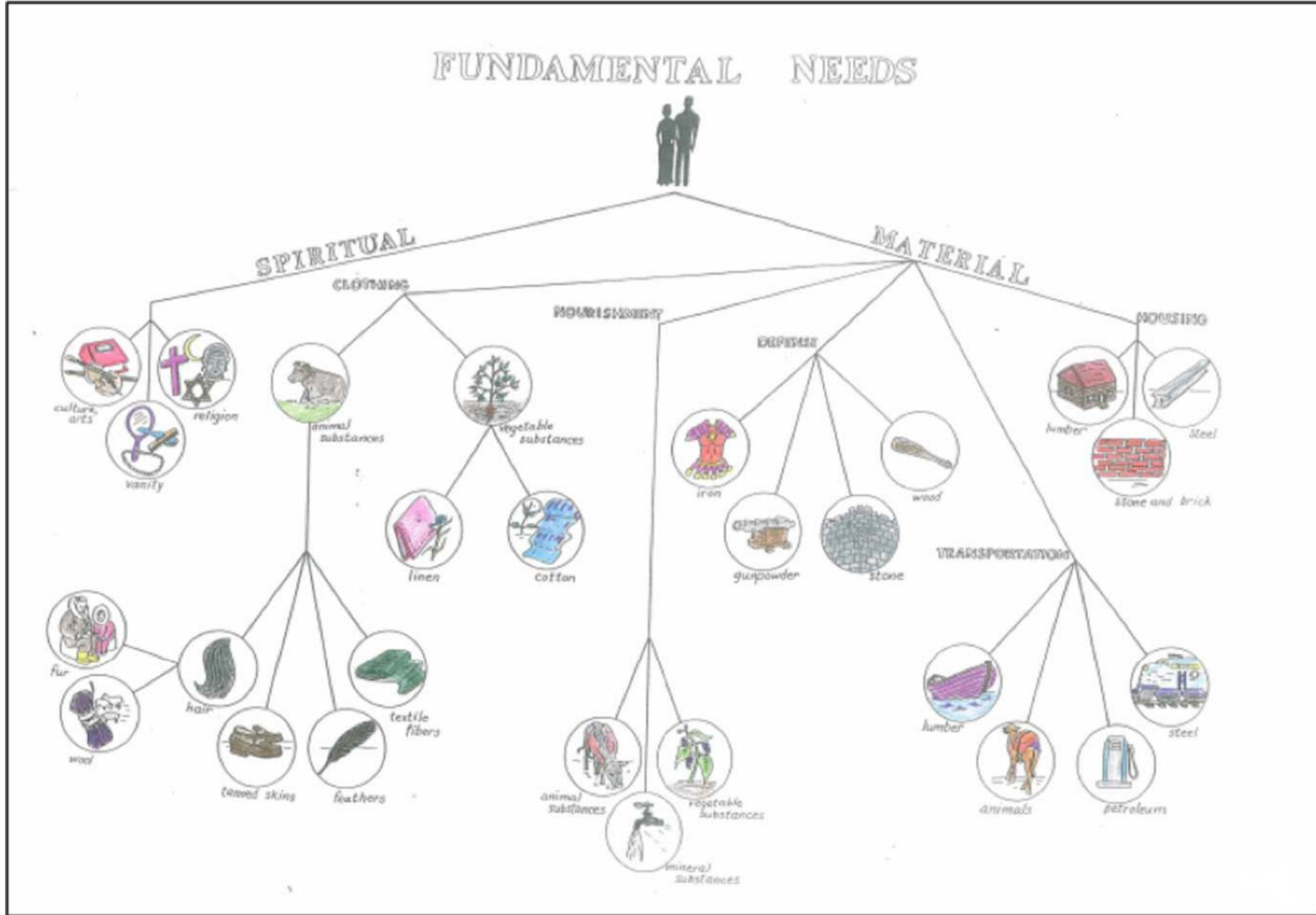
Trifoliate
(*trifoliata*)
Divided into
3 leaflets



Palmate
(*palmata*)
Divided into
many lobes

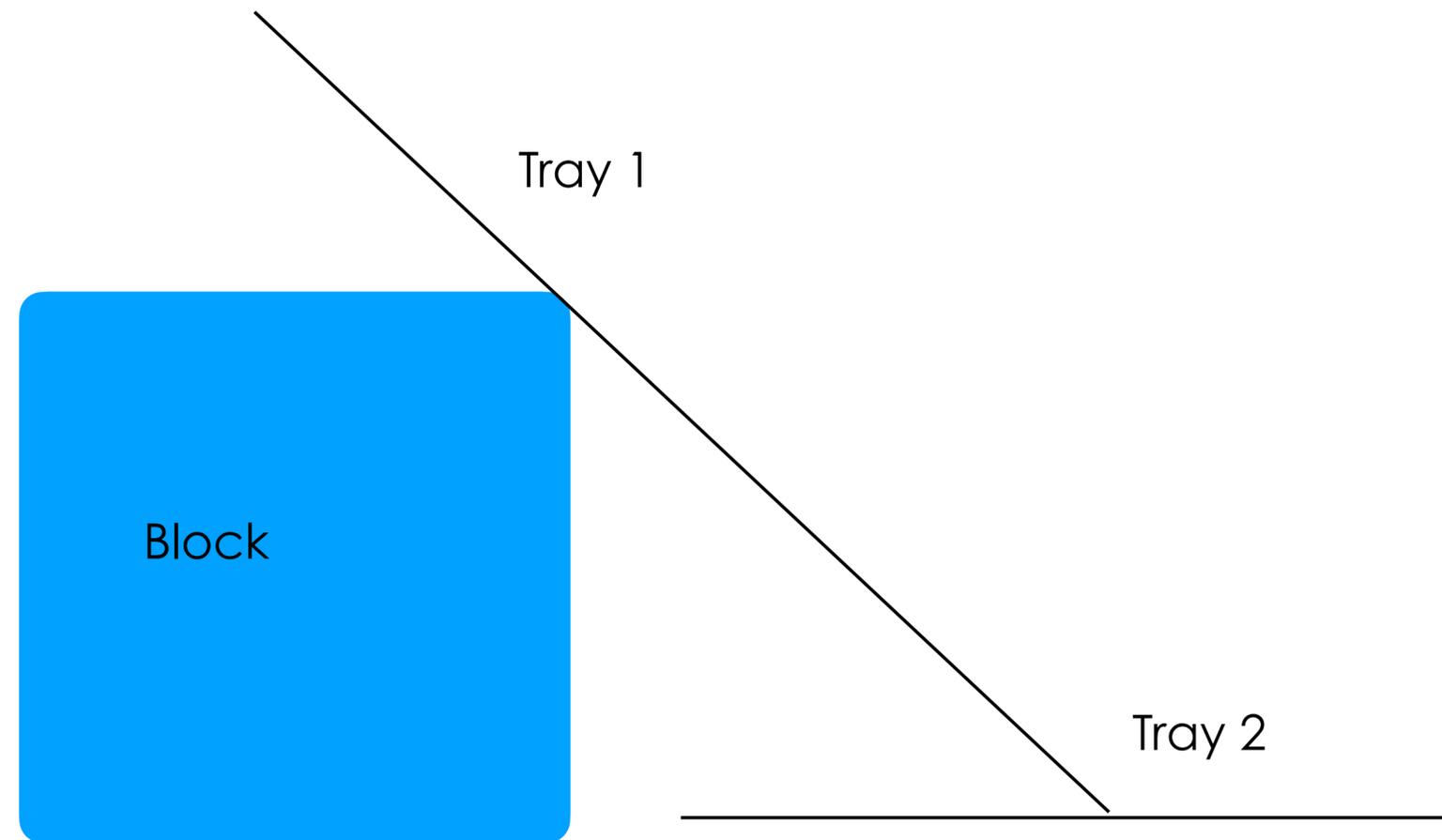


Digitate
(*digitata*)
Divided into
5 lobes



10 Appendices

Temperature affects viscosity



Template for the polygons matching game

Matching Game Template:

1. Choose your topic, for example polygons.
2. Write the name of the polygon in one square and draw the polygon in another.
3. Decorate them.
4. Cute them out and now you can shuffle them to play a memory game!

