Whitnash Primary School

Learning, growing and succeeding together

Year 3 Maths and English Home Learning Menu Spring B 2021 - WB 22.02.21

MATHS- Sequence 1

Measures ~ Length and Perimeter.

What is length? What **units of measurement** do we use when we are measuring length? We use mm, cm, m and km.

Mm (millimeters) is the smallest, followed by **cm** (centimeters), then **M** (meters) and then **km** (kilometers). Km are usually used to measure long distances.

Have a look at the video below and complete the accompanying worksheet below.

https://vimeo.com/503131096

Measures ~ Length and Perimeter.

Gather a range of objects and items from around your house and garden.

Measure each of the items using cm

Record your items in a table.

REMEMBER:

Make sure you have the correct side of your ruler ready.

Make sure you line up the start of the object with 0.

Make sure you use a ruler to draw your table.

Make sure your presentation is neat.

Measures ~ Length and Perimeter.

Equivalent means the same as.

Fact – 100cm is equivalent (the same) as 1m.

300cm would be equivalent to 3m.

5m is equivalent to 500cm.

6 ½ m is equivalent to 650cm.

Look at the blue arrow. What measurement is it pointing at? Has it reached 1m? What do you think each of the intervals are worth? Each interval is worth 10cm, so the arrow is pointing at 60cm. We would write this as 0m 60cm.

Now look at the red arrow. It is showing 1m 40cm.

Can you use this information to find the equivalents on the sheet below?

Measures ~ Length and Perimeter

Equivalent means the same as.

Fact – 10mm is equivalent (the same) as 1cm.

30mm would be equivalent to 3cm.

20cm is equivalent to 200mm.

2 ½ cm is equivalent to 25mm.

Have a look around your house and find 5 objects no bigger than 30cm.

Measure each of the items you have collected in mm and record them in a table like this in your book.

Item	Measurement	
Pen	150mm	15cm

Measure the objects again, but this time measure using the cm side.

REMEMBER:

Make sure you have the correct side of your ruler ready.

Make sure you line up the start of the object with 0.

What do you notice about the measurements?

Measures ~ Length and Perimeter.

Can you remember how many mm are equal to 1cm? 10mm =1cm.
Can you remember what these symbols mean? < > =

< Less than > Greater than
= Equal to.

Compare the following amounts using these symbols < > or = :

64mm	>	6cm
4cm		32mm
100mm		10cm
25cm		52mm
86cm		45cm
120mm		138mm

Measures ~ Length and Perimeter

Can you remember how many cm are equal to 1m? 100cm =1m.
Can you remember what these symbols mean? < > =

< Less than > Greater than
= Equal to.

Compare the following amounts using these symbols < > or = :

8m	>	600cm
5m		450cm
100cm		1m
2m		500cm
8m		790cm
120cm		2m

Measures ~ Length and Perimeter

Word problems 1
Have a go at answering the questions below.

Here are some top-tips for answering word problems.

Read through the problems carefully.
Highlight the important information – the information you need in order to answer the questions.
Show your workings clearly.
Write your answer clearly.

Measures ~ Length and Perimeter

Word problems 2
Have a go at answering the questions below.

Here are some top-tips for answering word problems.

Read through the problems carefully.
Highlight the important information – the information you need in order to answer the questions.
Show your workings clearly.
Write your answer clearly.

MATHS - Sequence 2

Measures ~ Length and Perimeter.

Adding length 1
Look at all of the lengths below. Can you add them together? Use the Column method to help you add them.

Measures ~ Length and Perimeter

Adding length 2
Look at all of the lengths below. Can you add them together? Use the Column method to help you add them. To make it easier, it might be better to change the measurements to the same unit, for example:
34mm + 6cm= Here, I would change the cm to mm:
34mm + 60mm=94mm.

Measures ~ Length and Perimeter

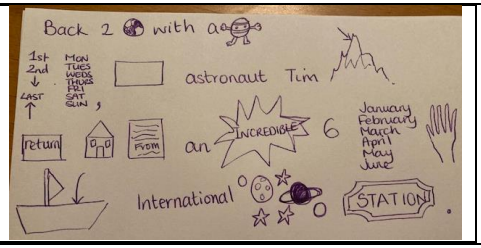
Subtracting length 1
Look at all of the lengths below. Can you Subtract? Use the Column method to help you subtract them.

Measures ~ Length and Perimeter

2. Look at all of the lengths below. Can you Subtract? Use the Column method to help you subtract them – be careful because you might have to change them to be the same unit of measurement – mm, cm or m.
For example:
640cm-3m= Here, you would have to convert the M to cm to work it out, look:
640cm – 300cm=

Measures ~ Length and Perimeter.	Measures ~ Length and Perimeter.	Measures ~ Length and Perimeter	Measures ~ Length and Perimeter
What is perimeter? Have you ever heard of it before? The **perimeter** is the distance all the way around the outside of a 2D shape. To work out the **perimeter**, add up the lengths of all the sides. Have a look at this BBC Bitesize video about how to calculate perimeter. https://www.bbc.co.uk/bitesize/topics/zvmxsbk/articles/zsr4k7h#:~:text=The%20perimeter%20is%20the%20distance,lengths%20of%20all%20the%20sides. Then have a go at the two activities under the video then try the quiz. Let me know how many you got correct.	Perimeter Look around your house and find 10 rectangular or square items (a book, a notepad, a letter, a tablet, a remote control, etc…) Write the measurements of each edge and work out the perimeter. Show your workings in your book like this: Remote control. 12cm + 12cm + 6cm + 6cm = 36cm	Perimeter Have a look at the shapes below. Can you work out the perimeter of each one? Think carefully about how you are going to present your work. I would like to see your calculations written clearly – like the 10 items you have measured previously.	Perimeter Have a look at the shapes below. Can you work out the perimeter of each one? Think carefully about how you are going to present your work. I would like to see your calculations written clearly – like the 10 items you have measured previously.

ENGLISH - Sequence 1			
Reading ~ Explanation text.	Reading ~ Comprehension	Reading – retelling a text	Reading ~ retelling a text
Explanation texts explain why or how something happens, explains cause and effect and is usually in time order. Read the explanation text (see below) • Read alone once, • Then read it with an adult. • Discuss any tricky words and any parts you don't understand. Write these down. • Use a dictionary to find the meanings of the words. If you don't	Re-read the explanation text 'How volcanoes erupt.' Have a go at answering the questions. Write the answers in full sentences in your book. Remember to number the answers and make sure that your spellings are copied correctly.	Have another read of the explanation text 'How volcanoes erupt.' You are going to text map the text. Remember, you do not need to text map every word.	Using your text map, think of actions for each of the images. This will help you to learn the text. Practice this a few times until you can retell the text just by your actions.

have a dictionary, there are lots online. Here is a link: https://kids.britannica.com/kids/browse/dictionary			
Reading ~ retelling a text Using your text map, and not looking at the original text, can you re-write the explanation text about 'How Volcanoes erupt'? You can either; 🌶 Keep it exactly the same. 🌶🌶 Change some of the words, or, 🌶🌶🌶 Re-write it in your own words.	**Reading ~ Inference** Look at this image below then answer the questions.  What do you think they are looking at? Where do you think they are? Why? What do you think has happened? Why do you think that?	**Reading - Inference** Look again at the image.  Look at the characters. What do you think they would be saying to each other? Write a conversation between the two characters. Remember to use inverted commas.	**Reading ~ Prediction and Book Review** Read or listen to chapter 1: https://www.myon.co.uk/reader/index.html?a=uk_jm_volca_s09 Predict – what do you think is going to happen next? Why? What did you like about the first chapter? Would you like to read the rest of the book? Would you recommend this book to other people? Who would enjoy reading this book? Why?
ENGLISH - Sequence 2			
Writing ~ Explanation texts Read the explanation text (see below) and see if you can find the features. Tick them off as you go. • Read alone once, • Then read it with an adult. • Discuss any tricky words and any parts you don't understand. • Label the features of non-fiction texts you can spot.	**Writing ~ Explanation texts** You are going to write an explanation text all about cyclones. You can use some of the information below in the model text however, you should include **some of your own research**. Before looking at the links in the next box, write a set of questions you want to find out	**Writing ~ Explanation texts.** Here, you are going to start and research your information. Make sure you have written a set of questions you want to find out about Cyclones I have included some further information below for you to use as well as links to various websites full of information.	**Writing ~ Explanation texts** Continue with your research. Can you find out any fascinating facts that you can include? Can you find a diagram you can copy?

• Challenge – Can you explain the purpose of each feature?	about Cyclones. This will help you focus your research on the information you need. Write these in your books, neatly and clearly, remembering the correct punctuation. What do questions need?	Britannica Cyclone information Kiddle Drucksters Sciencing Mocomi National Geographical	
Writing ~ Explanation texts - Planning. All of the information you have collected, you will plan your explanation text about cyclones. You will use all of the feature spotting and research you have completed over the past few lessons and put them altogether to write your own explanation text. Look at the planning grid below and complete the boxes, using the information you have already collected/created.	**Writing ~ Creating a text – part 1.** Using everything you have planned, write your explanation text about cyclones. You need to set it out as the examples we have looked at and you need to ensure that all of the features are included.	**Writing ~ Creating a text** Continue writing your explanation text. When you have completed your report, have a break from it and then go through it with fresh eyes. Check for incorrect spellings (including homophones), capital letters, full stops and other punctuation (inverted commas, exclamation and question marks), a/an is being used correctly and check that your sentences make sense. Edit if you need to.	**Writing ~ Evaluating a text** Looking back at the explanation text you have written, and using the features checklist, go through your report and tick off each of the features you have included. Are there any you have missed off? Would you have done anything differently if you were to write it again? What would you change/add?

Maths 1 – measuring length. Pg 1

Measure length

1 What is the length of each line?

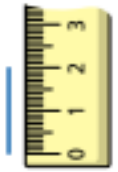
a)

cm

b)

cm

c)



cm

2 Write the length of each line to the nearest millimetre.

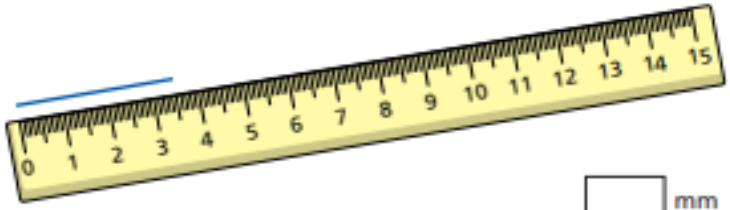
a)

mm

b)

mm

c)



mm

3 Use a ruler to draw lines of these lengths.

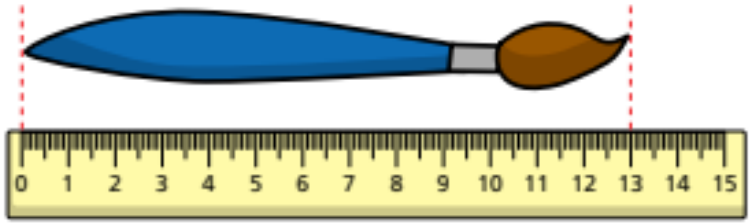
a) 5 cm

b) 75 mm

c) 42 mm

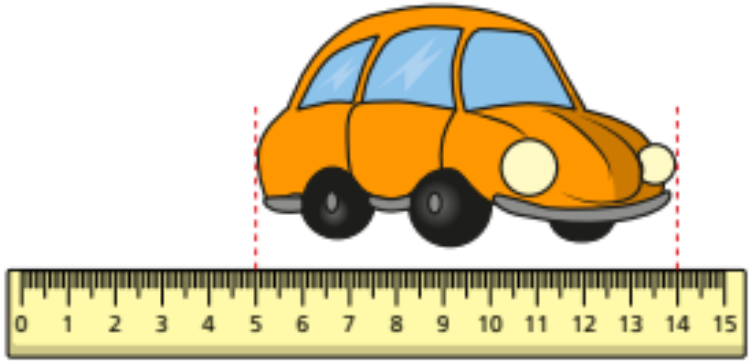
Maths 1 – measuring length. Pg 2

4 How long is the paintbrush?



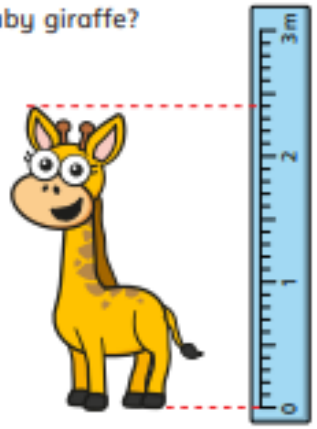
The paintbrush is ☐ cm long.

5 How long is the toy car?



The toy car is ☐ cm long.

6 How tall is the baby giraffe?



The baby giraffe is ☐ m and ☐ cm tall.

7 Tick the most sensible estimate for the height of a classroom door.

20 cm	2 m	20 m
☐	☐	☐

8 Find items in the classroom that are the following lengths.

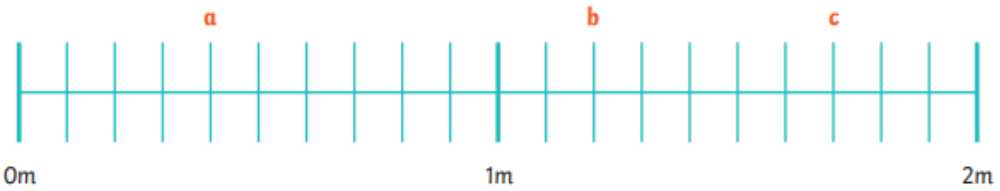
Write your answers in the table.

Less than 10 cm long	Between 10 cm and 1 m long	More than 1 m tall

Compare with a partner.

Equivalent lengths – m and cm.

1) Calculate the missing measurements.



a) ___ m ___ cm

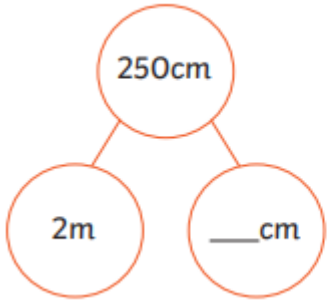
b) ___ m ___ cm

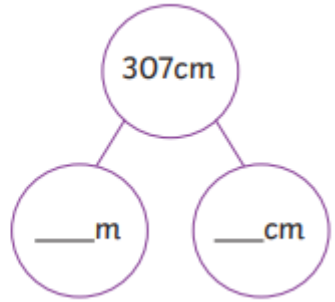
c) ___ m ___ cm

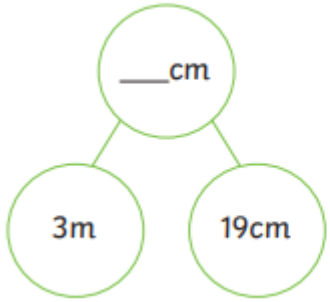
2) Complete the missing measurements.

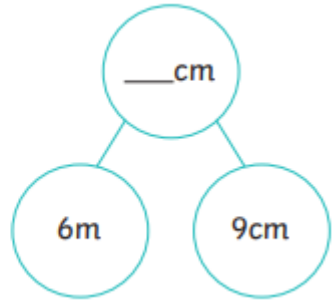
cm	=	m
200	=	
	=	5
900	=	
	=	3

Complete the part-whole models









EXTRA CHALLENGE:

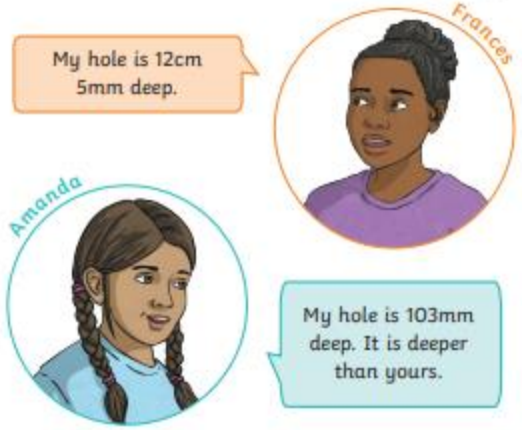
Now, can you think of your own equivalent measurements like the grid above?

Add three more rows to your grid and add your own.

Can you create your own Part-whole model? Have a go. You could use a coin to draw around for your circles.

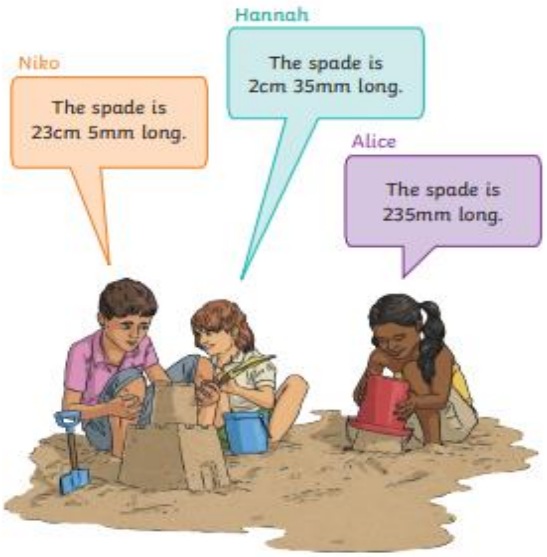
Word problems 1

1) Amanda and Frances dig some holes in the sand.



Do you agree with Amanda? Give your reasons.

2) Alice, Hannah and Niko have each measured the length of a spade.

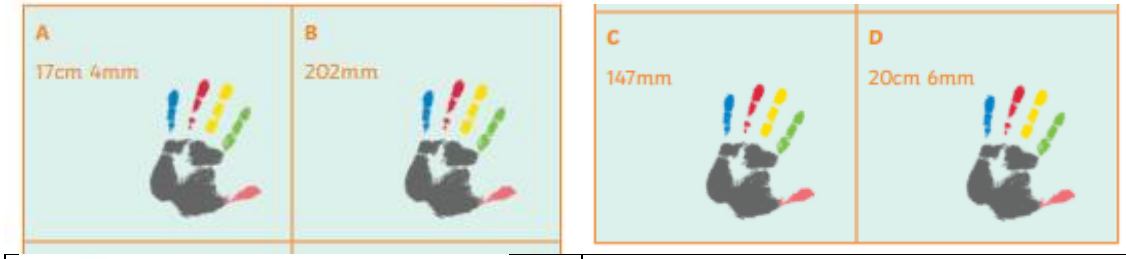


Which child has made a mistake?
Explain your reasons.

Word problems 2

Whose hand belongs to who? Can you match a letter to each child following the clues?

1) a) Marcel, Zak, Karol and Russ are measuring their hand spans.



My hand span is 20cm 2mm long.

My hand span is 174mm.

My hand span is less than 15cm.

My hand span is the largest.

Letter:

Marcel: _____

Karol: _____

Zak: _____

Russ: _____

Can you think of a different clue to describe Karol's hand span?

_____

_____

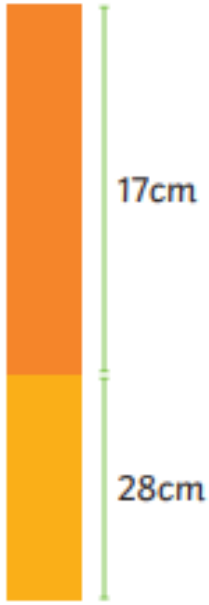
_____

_____

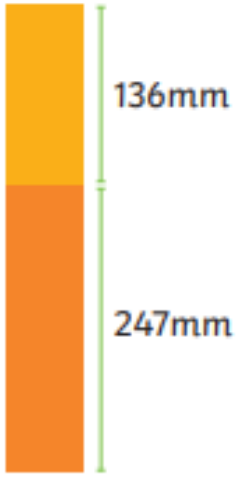
Adding Lengths 1

1) Calculate the total height of each tower.

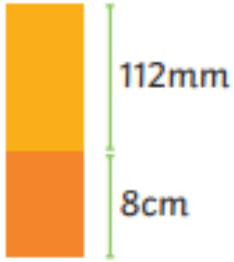
a)



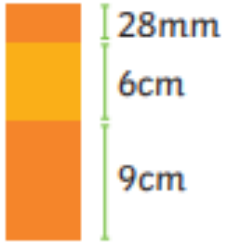
b)



c)



d)



2) Some children took part in a swimming event. The total length of each swim was recorded.

Name	First Swim	Second Swim
Leon	123m	56m
Matthias	84m	96m
Grace	102m	69m
Bella	92m	47m

a) How far did each child swim in total?

b) Who swam the furthest?

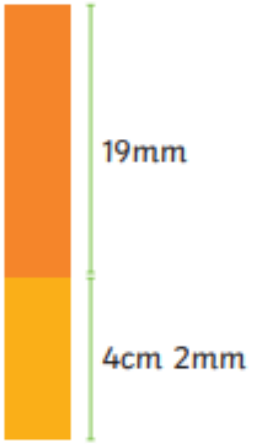
c) What was the total distance swum by all four children?

3) What is the total height of the doll?

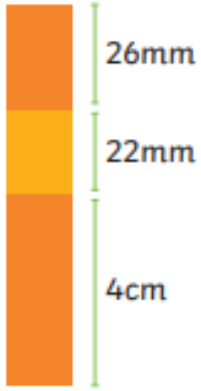
Adding Lengths 2

1) Work out the height of each tower, to match the tower to its builder.

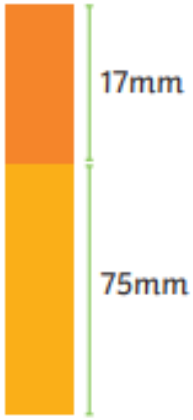
Tower A



Tower B

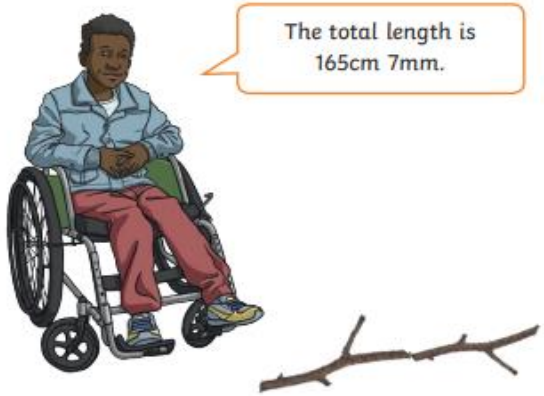


Tower C



Grace	My tower is the tallest tower.
Polly	My tower is less than 7cm tall.
Finn	My tower is 88mm tall.

2) Zara and Joe have laid two sticks end to end. Zara's stick measures 36cm 7mm. Joe's stick is 129mm long.



Do you agree with Joe?
Show your working out and explain your reasons.

1) Jo and Freddie are making sandwiches using different breads, fillings and salad items. They can only use one of each item.

Bread	Filling	Salad
Baguette 3cm 	**Ham** 2cm 6mm 	**Tomato** 35mm 
Roll 2cm 5mm 	**Chicken** 2cm 9mm 	**Lettuce** 19mm 
		Cucumber 1cm 5mm 

a) Which three parts will make the tallest sandwich?

b) How tall is the tallest sandwich?

_____

_____

Subtracting Length 1

1) Find the difference in length between:

a) the pencil case and the leaf

b) the table and the pencil case

c) the pencil case and the banana

d) the banana and the pen

Item	Length
leaf	6cm
pen	12cm 4mm
banana	200mm
pencil case	25cm
table	1m 7cm

2) **a)** Josef jumps 4 metres. Julia jumps 1m 24cm less than Josef. Complete the calculation to find how far Julia jumped.

4m – 1m = ___ m

___ m – 24cm = ___ m and ___ cm

b) Write a similar calculation to solve 6 – 2m 54cm

Subtracting Length 2

3) **a)** A ball of string is 10m long. Tiana uses 1m 80cm to tie up a parcel. Use the part-whole model to complete the calculation and find out how much string is left.

200cm – 180cm = ___ cm

___ m + ___ cm = ___ m and ___ cm

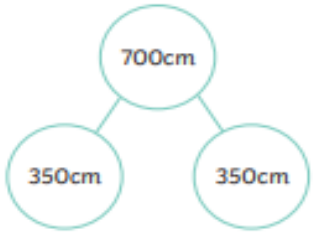
b) Write a similar calculation to solve

8m – 2m 65cm

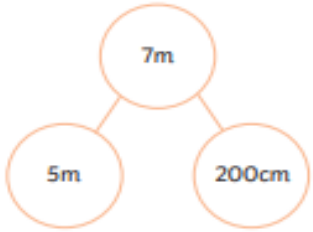
1) Morris wants to use a part-whole model to help him calculate 7m – 1m 56cm. Which part-whole model would you suggest he uses? Give your reasons.

a)

b)



c)



2) Joni is making a path 120m long along the side of the school field. She has laid 65m of slabs and 26m of gravel.

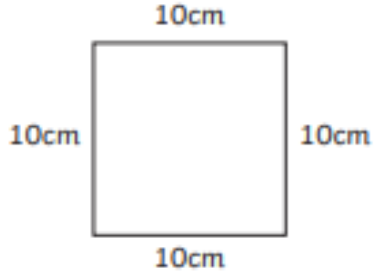
How much more of the path does she need to cover?

Perimeter 1

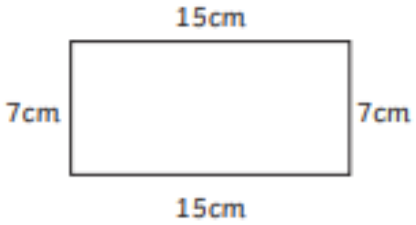
I am learning to calculate the perimeter of shapes.

Calculate the perimeter of each of these shapes. Write the answer inside the shape. Always check the units of measure and remember that these drawings are not to scale!

1)



2)



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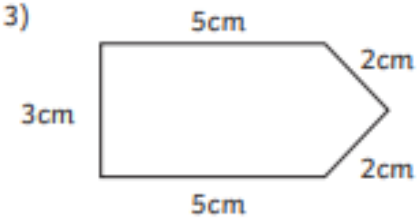

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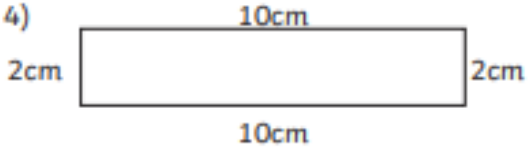
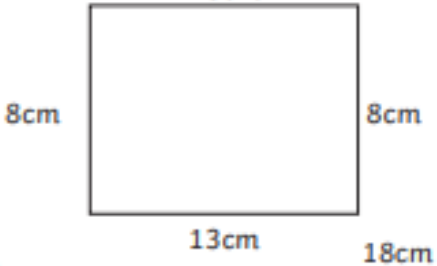
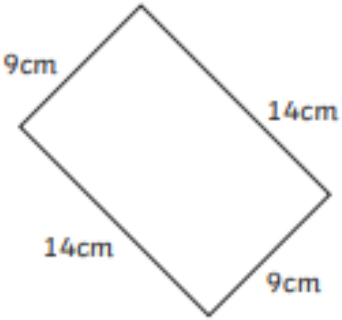


5)



6)



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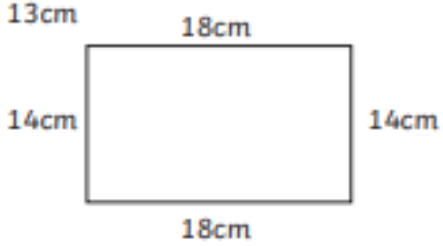
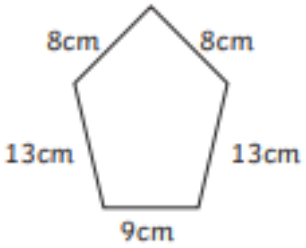


Perimeter 2

I am learning to calculate the perimeter of shapes.

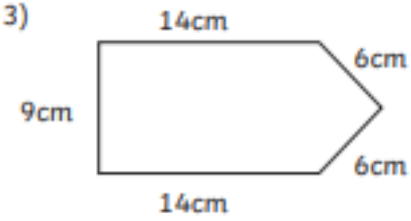
Calculate the perimeter of each of these shapes. Write the answer inside the shape. Always check the units of measure and remember that these drawings are not to scale!

1)



2)

3)



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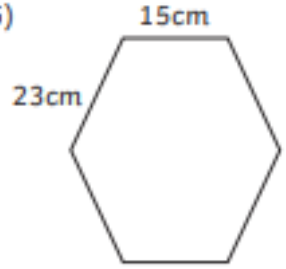

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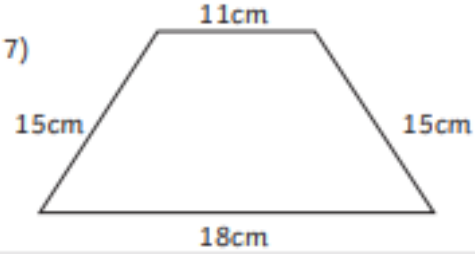


English Schedule 1 text ~ Reading Comprehension and Text mapping text ~ Explanation text.

How Volcanoes Erupt

Volcanoes are like openings on the Earth's surface. All volcanoes can eject lava, rocks, gas or ash, which can cover the surrounding land. When this happens, it is called a volcanic eruption.

There are five main parts of a volcano: the magma chamber, the main vent, the crater, the cone and sometimes there are some smaller vents. The magma chamber is a large space where magma is stored. It is connected to the surface by the main vent and smaller vents. The crater is located above the magma chamber and the outside of the volcano is referred to as the cone.

Just before an eruption, the magma chamber is filled with molten rock from the mantle. After a short period of time, the pressure increases and, as a result, the magma rises through the vent towards the crater. Magma contains bubbles of gas, which grow larger and larger as the pressure increases. This leads to the volcano erupting magma on to the surface of the earth. As the gas bubbles in the magma escape into the atmosphere, the hot molten rock changes to lava. There are two main types of eruptions: explosive eruptions and effusive eruptions. An explosive eruption is when the volcanic material is ejected from the crater violently and dramatically. By contrast, in an effusive eruption, the lava gradually oozes out of the crater. The type of eruption is determined by the amount of gas and the mineral content in the magma. All volcanic eruptions cause significant changes, both positive and negative, to the surrounding land.

As the lava cools, it solidifies and becomes a type of igneous rock, such as basalt and granite. Volcanic eruptions are part of a continual process called the rock cycle. Eruptions occur daily around the world and new rock is constantly being formed through this process.

Comprehension questions

What do volcanoes eject?

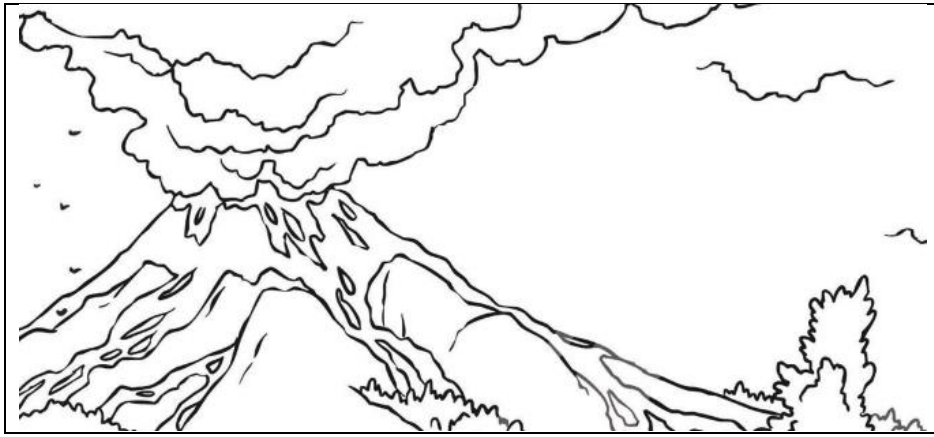
How is the magma chamber connected to the surface?

What happens just before an eruption?

What are the two main types of eruption?

How are the two eruptions different?

What does the lava become once it has cooled?



Writing ~ Explanation texts. Can you identify and label the features?

Be a text detective: Can you spot the features?

A clear title to show what is being explained?
An opening statement to introduce the process?
Clear steps to show how or why something occurs?
The events in order?
Conjunctions of time (e.g. before, after)?
Causal conjunctions (e.g. because, so, this causes, therefore, thus, consequently)?
Illustrations/diagrams/flow charts to make explanation clearer?

Evaluate:

Cyclones

Cyclones are fierce, tropical storms. Meteorologists explain that cyclones are caused by low pressure weather systems with ferocious winds spiralling inwards and blowing at more than 150 kilometres per hour. Cyclones are known as 'typhoons' when they occur in the Far East and 'hurricanes' in the Atlantic Ocean.

Cyclones generally occur during the hotter summer months and they begin as a thunderstorm over warm seas. Wind and clouds start to spin in a large circle becoming faster and faster. Their speed can reach up to 300 kilometres per hour. Cyclones usually begin around the equator where the oceans are warm. They occur in many parts of the world.

Cyclones look like a large funnel of spinning wind. They have a calm part in the centre called the 'eye', which is between 10-20 kilometres in diameter. The eye of the cyclone brings a temporary stillness; however, the severe winds return when it passes.

Cyclones spin in a large circle and they fade away when they go further inland. They need the sea or water to maintain energy.

Cyclones can cause tidal waves, which cause floods. They can uproot trees and strip off their leaves. They can knock down buildings and destroy houses. They can also destroy many people's lives.

It is important that all people heed cyclone warnings.

What would you have done differently? Is there anything else you would have included in the information?

Further information

Terrible twisters

Tornadoes are terrifying funnels of spinning air. They contain superfast winds with the deadly power to smash houses, flip cars over, and knock trains off their tracks.

Birth of a monster

Tornadoes begin as warm air drawn into the base of huge storm clouds. Warm air is lighter than cool air, so it rises quickly. Then, like water flowing into a drain, it starts to spin. If it spins fast enough, it forms a dark funnel cloud that becomes a deadly twister.

Tornado facts

- At the centre of a big tornado, the wind can reach more than 483 kph (300 mph).
- A tornado can flatten one house, and leave the one next door standing.
- During a 16-hour period in April 1974, 148 twisters hit Dixie Alley, in southeastern USA, killing 330 people and injuring 5,484 more.

Tornado Alley

There are more tornadoes in the central USA than anywhere else on the Earth. In the area where they are most common – known as Tornado Alley – every home has an underground shelter where the family hide when a tornado is on the way.

Radar devices like this one can detect signs of a tornado developing inside a storm cloud.

Tracking the twisters

Because they destroy any instruments in their path, tornadoes are hard to study. Special radar dishes, mounted on the back of huge trucks, help to work out where the tornadoes are going.

Death and destruction

Tornadoes destroy property, nature, and human life, all within minutes. Here, a quiet town in the state of Georgia, USA, has been torn apart.

This tangle of crushed metal was once a large, heavy truck.

Planning an Explanation text.

Explanation text - Cyclones	
Paragraphs	Notes and Ideas
Introduction What are you telling us about? How will you capture the reader's interest? What key words will you include?	
First paragraph - What is it about? What is the focus? What key words are you going to include?	
Second paragraph What is it about? What is the focus? What key words are you going to include?	
Third paragraph What is it about? What is the focus? What key words are you going to include?	
Concluding paragraph / Other interesting facts.	
Diagram?	