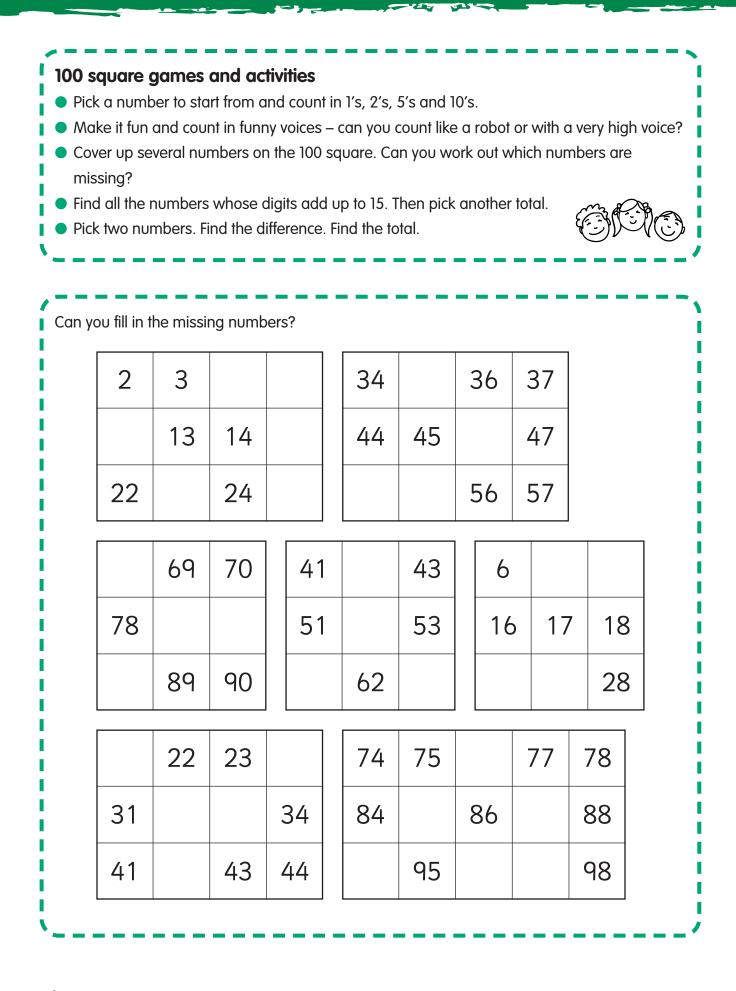
Hundred Square

Let's get familiar with the 100 square!

Try practising some of these activities every day.

	_								
1	2	3	4	5	6	7	8	٩	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



It can help us in lots of areas of maths if we can quickly recall our multiplication facts.

Let's get practising our 3x, 4x, 6x and 8x table!

3x	4x
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
$6x$ $1 \times 6 = 6$ $2 \times 6 = 12$ $3 \times 6 = 18$ $4 \times 6 = 24$ $5 \times 6 = 30$ $6 \times 6 = 36$ $7 \times 6 = 42$ $8 \times 6 = 48$ $9 \times 6 = 54$ $10 \times 6 = 60$ $11 \times 6 = 66$ $12 \times 6 = 72$	8x $1 x 8 = 8$ $2 x 8 = 16$ $3 x 8 = 24$ $4 x 8 = 32$ $5 x 8 = 40$ $6 x 8 = 48$ $7 x 8 = 56$ $8 x 8 = 64$ $9 x 8 = 72$ $10 x 8 = 80$ $11 x 8 = 88$ $12 x 8 = 96$

 Learning Tips March like a soldier and chant the multiplicat Play multiplication ping pong with one persol batting back the answer. 	_
Quick Questions	、
1. 2 × 3 =	6. 3 × 3 =
2. 5 × 6 =	7. 8 × 8 =
3. 7 × 4 =	8. 1 × 6 =
4. 6 × 8 =	9. 12 × 4 =
5. 2 × 4 =	10. 4 × 3 =
Now try making your own 'quic	k 10' and test yourself or someone else!

Try practising your times tables every day!

It can help us in lots of areas of maths if we can quickly recall our multiplication facts.

Let's get practising our 7x, 9x, 11x and 12x table!

7x	9x
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{rcrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
$11x$ $1 \times 11 = 11$ $2 \times 11 = 22$ $3 \times 11 = 33$ $4 \times 11 = 44$ $5 \times 11 = 55$ $6 \times 11 = 55$ $6 \times 11 = 66$ $7 \times 11 = 77$ $8 \times 11 = 88$ $9 \times 11 = 88$ $9 \times 11 = 99$ $10 \times 11 = 110$ $11 \times 11 = 121$ $12 \times 11 = 132$	$2 \times 12 = 24$ $3 \times 12 = 36$ $4 \times 12 = 48$ $5 \times 12 = 60$ $6 \times 12 = 72$ $7 \times 12 = 84$ $8 \times 12 = 96$ $9 \times 12 = 108$ $10 \times 12 = 120$ $11 \times 12 = 132$

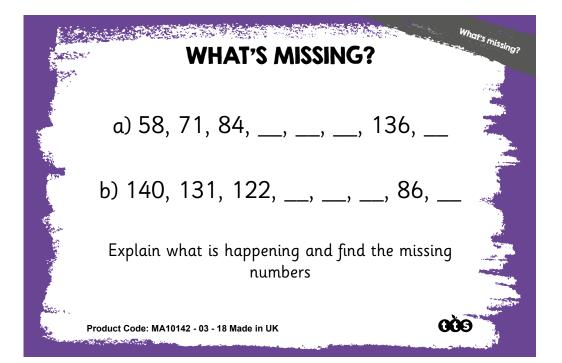
 Learning Tips March like a soldier and chant the mul Play multiplication ping pong with one batting back the answer. 	Itiplication tables e.g. 1x9 = 9, 2x9 = 18 person batting the question and the other
Quick Questions	
1. 5 × 9 =	6. 2 × 7 =
2. 3 × 12 =	7. 3 × 9 =
3. 7 × 7 =	8. 10 × 7 =
4. 8 × 9 =	9. 8 × 12 =
5. 4 × 11 =	10. 9 × 11 =
	n 'quick 10' and test yourself or someone else!
4	

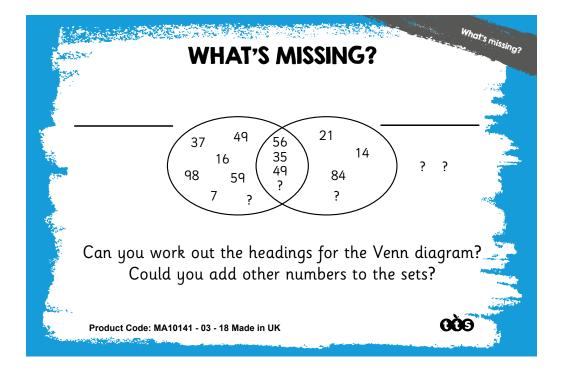
Try practising your times tables every day!

What's Missing?

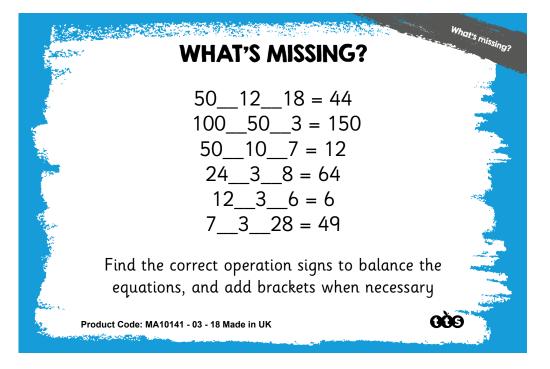
Blue-Bot has been cheeky and stolen lots of numbers and operations. Become a maths detective and see if you can solve these problems and fill in the missing gaps.

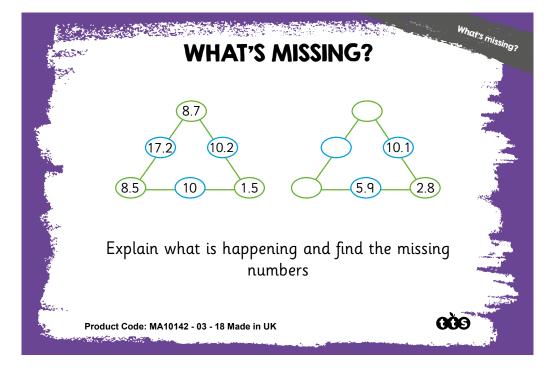






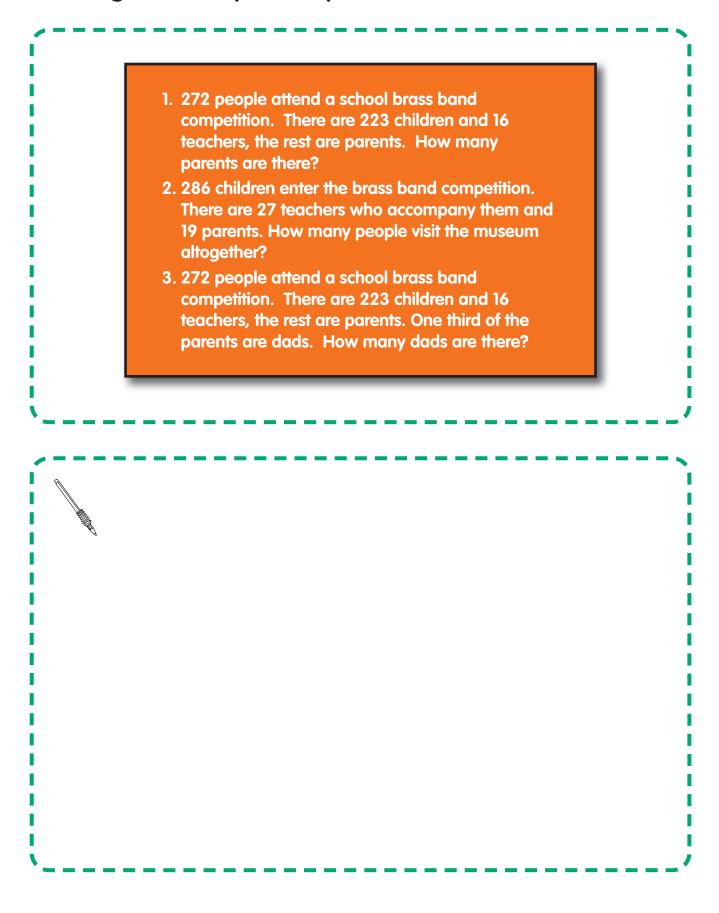


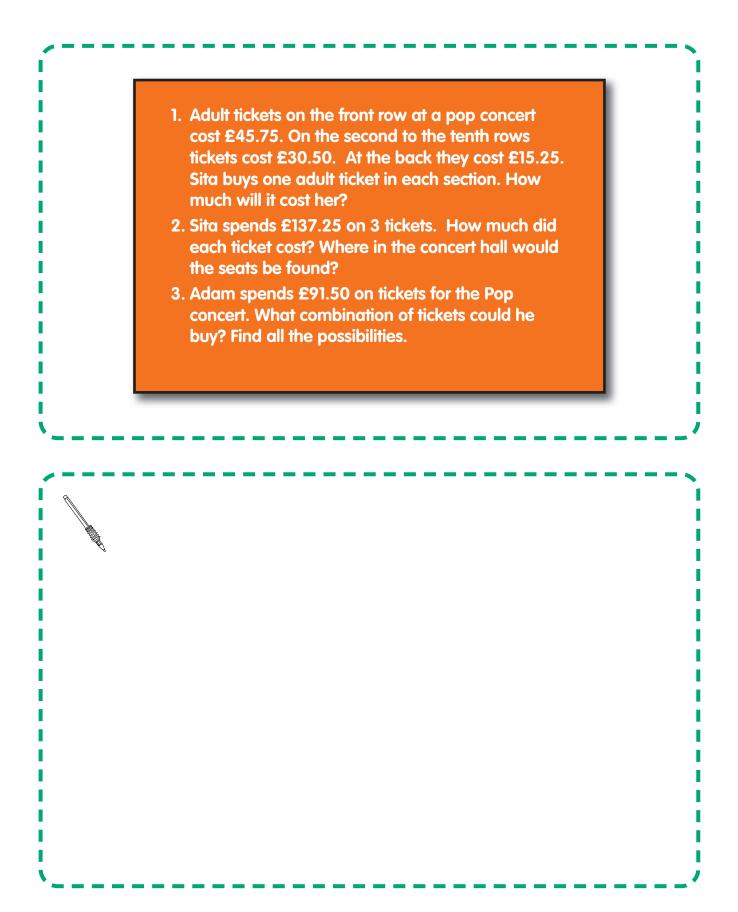




Dip & Pick

Have a go at our Dip & Pick problems...



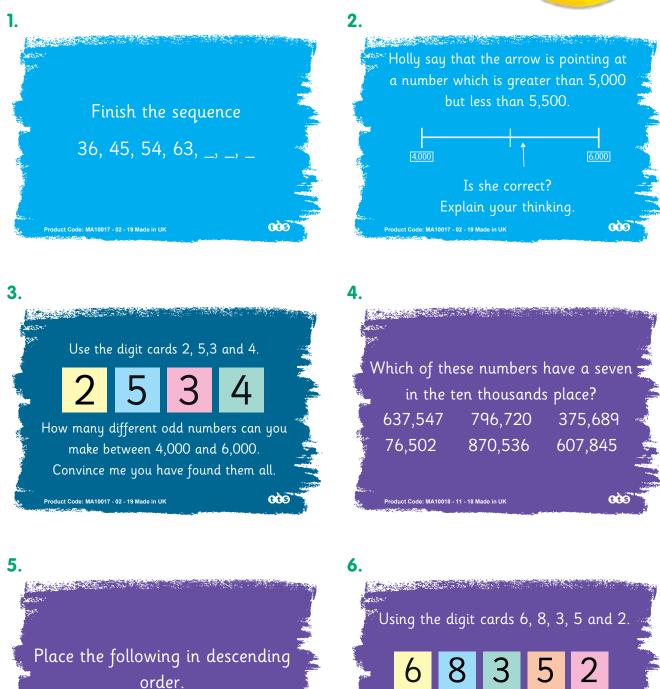


Number and Place Value

Bee-Bot has been struggling with his maths.

Put your maths hats on and see if you can help him to solve these questions.





Make 5 different 5-digit numbers. Place them in descending order.

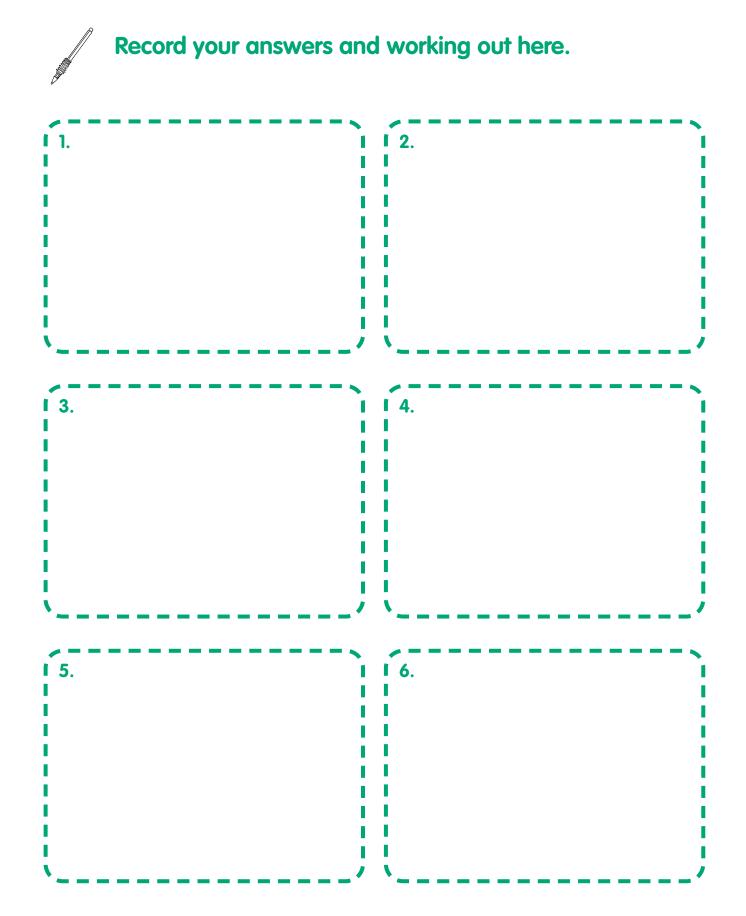
e: MA10018 - 11 - 18 Made in UK

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52, -12, 21, -9, 37, -49

HÅ

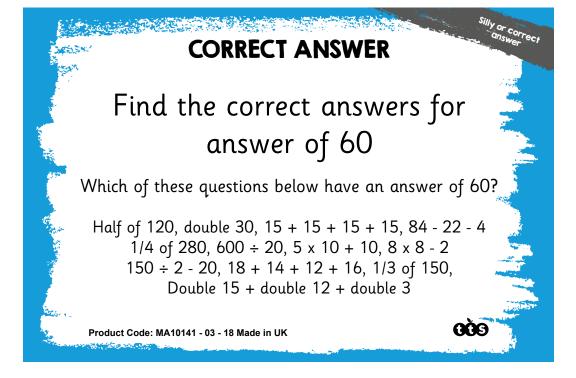
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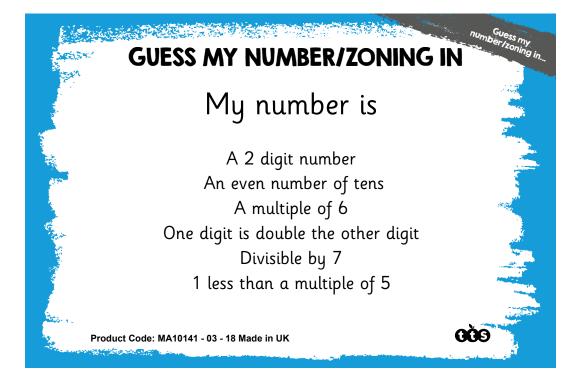


Reasoning

Test your knowledge and combine your mathematical skills to help solve these reasoning problems.

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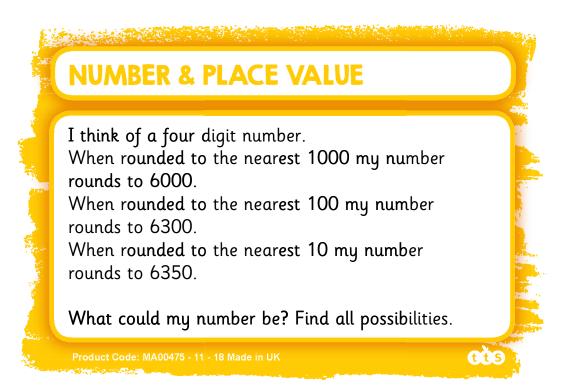




You are a Maths Superstar!

Time to put your superhero cape on and apply your learning to solve these tricky problems!



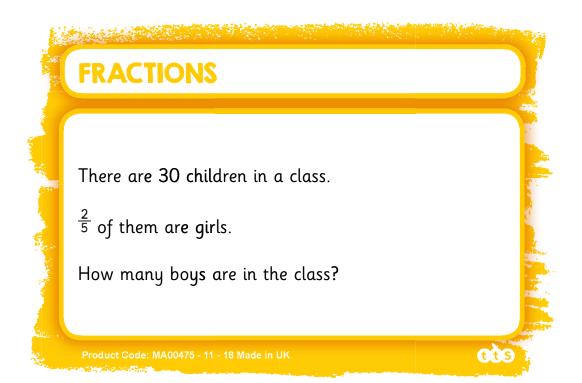




Using each of the digits 2, 7, 4, 5, 1, 3, can you make an addition calculation with the answer 400?

Product Code: MA00475 - 11 - 18 Made in Uk

CÊ.



MEASURES - MONEY

Kerry bought 3 presents. The cheapest present cost $\pounds 2.80$, the most expensive present cost twice as much and the final present was exactly halfway between the prices of the other two presents.

How much did each present cost?

How much did she spend altogether?

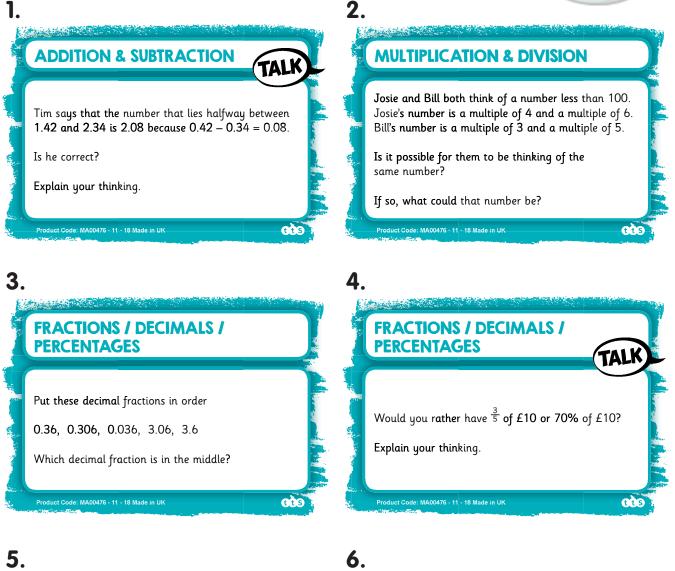
Product Code: MA00475 - 11 - 18 Made in UK

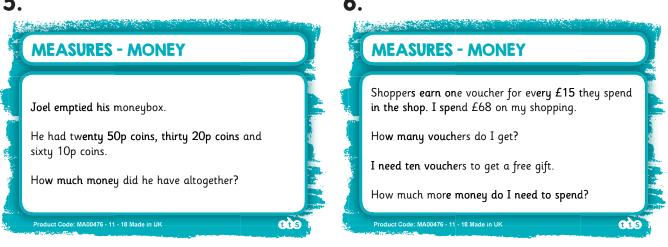
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More Problem Solving

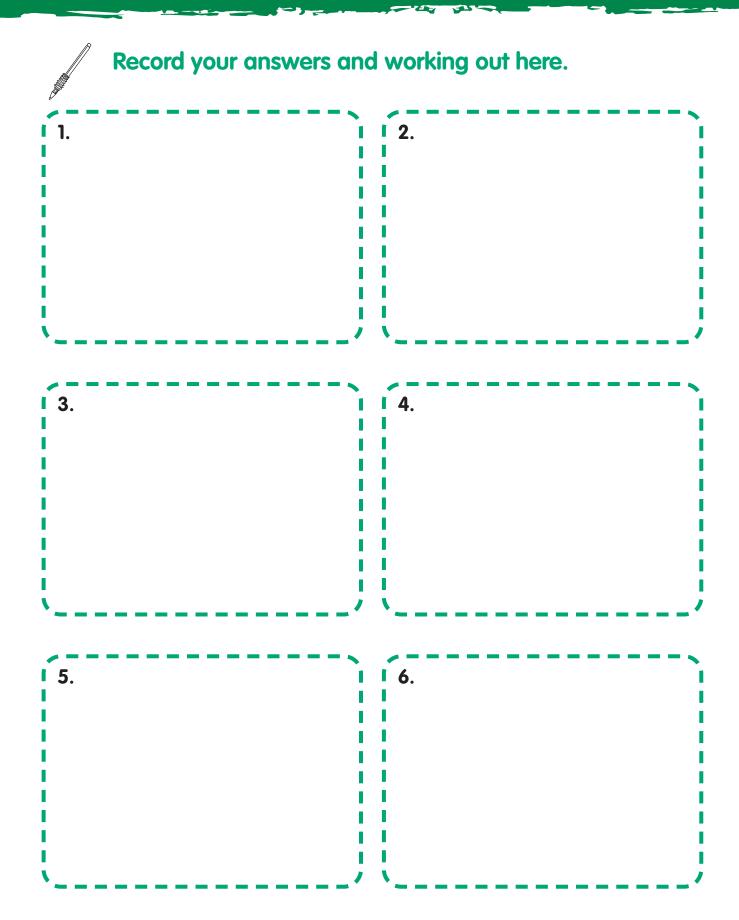
Blue-Bot needs some help to solve these tricky problems ...







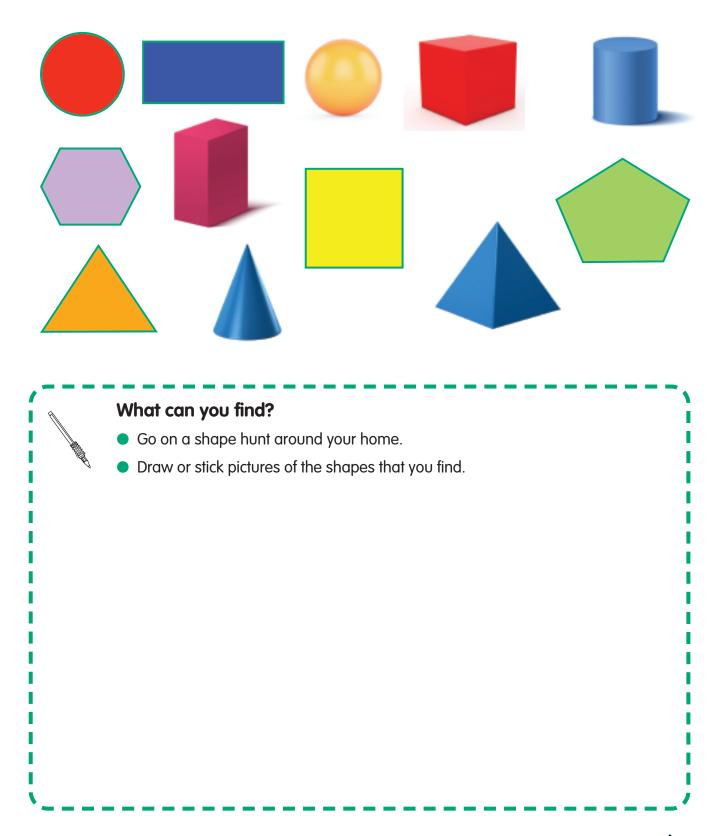
Maths Activity 9



Shape Hunt!

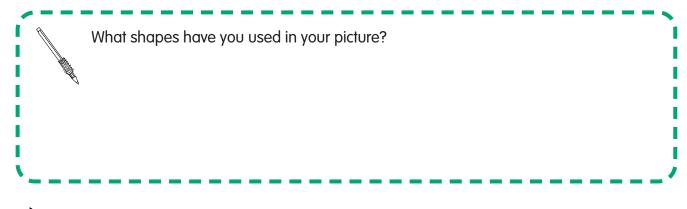
Take a look at the 2D and 3D shapes below and discuss:

- What are the names of these shapes?
 - Can you name the properties of each shape? (faces, vertices, edges)

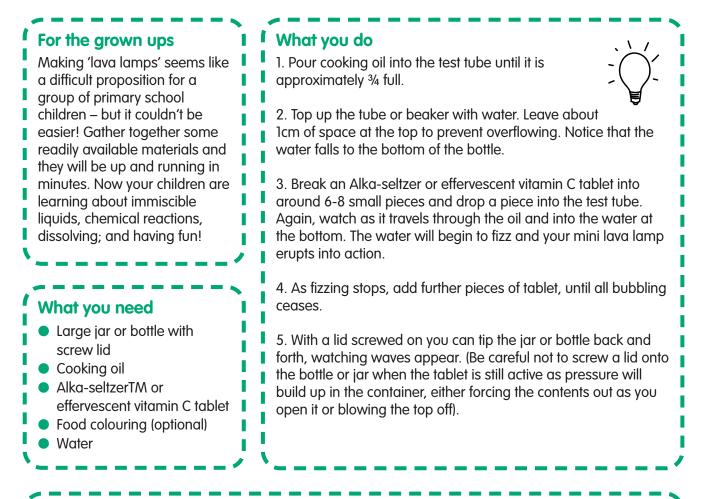


Draw your own picture using 2D and 3D shapes





This science activity will require a few items from your kitchen and an adult to help. Many thanks to **Sue Martin** for this amazing kitchen science lesson.



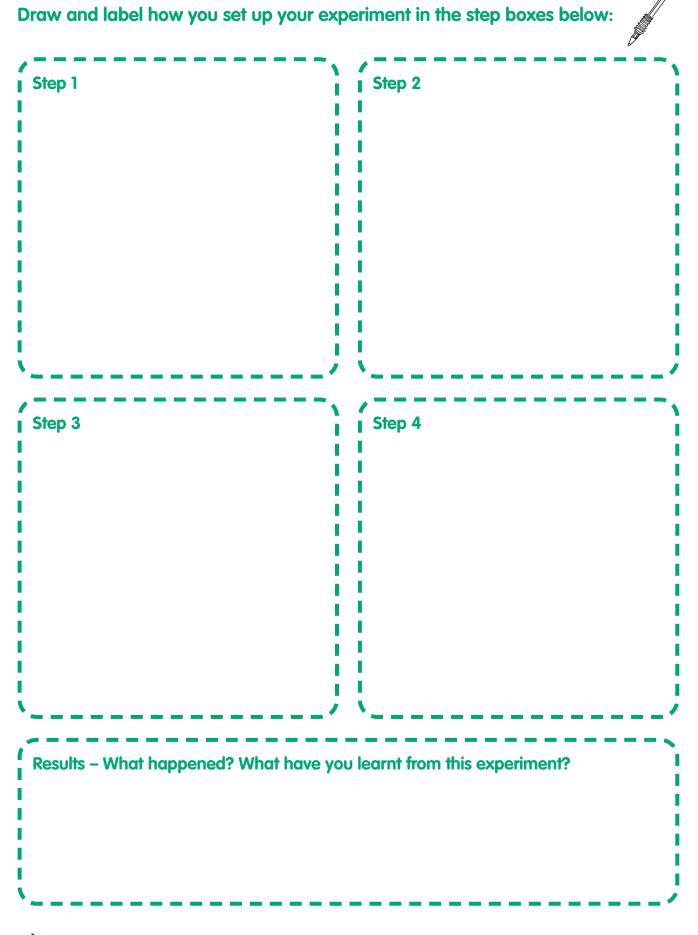
What's happening?

Water and oil are immiscible (they don't mix). Water is also denser than oil (i.e. for the same volume of each, water is heavier than oil). So the water sinks below the oil, which floats on top. Alka-seltzer and effervescent Vitamin C tablets contain chemicals that can only react together when they are wet. They are denser than both oil and water, so fall to the bottom of the test tube.

As soon as a piece comes into contact with the water layer, a reaction occurs between the chemicals, producing carbon dioxide (CO₂) gas. These CO₂ bubbles attach themselves to 'blobs' of the water like floats, causing them to rise to the surface, through the oil layer. There, the gas bubbles pop, the water loses its float and sinks back through the oil to the bottom of the test tube.

This process can continue whilst the tablet continues to react and produce CO2. When the reaction stops, the two layers settle back. If you use Vitamin C tablets, dye (food colouring) is often also present in the tablet. This dissolves in the water layer and produces coloured 'lava'. The children may observe that this occurs over a short period of time rather than immediately. Dissolving is a physical change, which is reversible. The dye is simply dispersed in the water. A few drops of any food colouring may also be added to the bottle if colourless tablets such as Alka-selzer are used and will be observed to dissolve only in the water layer, to create coloured 'lava'.

Once the reaction is over, with a lid on the test tube you can observe the motion of oil and water as you rotate the test tube – the oil layer remains above the water. Even if it is shaken, mixing only occurs



Sailing Boats



WHAT YOU DO:

- Use the felt tip and ruler to draw a boat shape on your pizza disc. Make it as long as the disc and quite wide to help prevent the boat capsizing. Cut out the boat base.
- 2. Place the poster tack on the table and press a bottle lid onto it with the open side downwards. Press down with the pencil to make a small hole in the middle. Don't make the hole too big as it needs to be a tight fit on the skewer.
- **3.** Take out the poster tack and glue the lid down towards the front of the boat base. Push the pointed end of the skewer down through the hole in the lid and into the base.
- 4. Cut the sheet of coloured card so that it is shorter than the skewer, and trim it to your preferred shape. You can decorate it with a felt tip pen. Punch a hole in the middle of the top and bottom, then slide the sail onto the skewer.
- 5. Place the boat in the water tray and blow into the sail to make it move across the water. You can customise your boat by adding a sailor, flag, decorations etc. You could try to help it move faster, for example by changing the shape of the base to make it more streamlined.







on the boat, pulling it down water.

The boat base is made from polystyrene foam pizza disc; this contains lots of little air pockets, making it buoyant so that it doesn't sink.

When you blow into the sail the boat moves across the water.

The resistance of the water (drag) slows the boat down.

If you make the boat more streamlined (e.g. by making the front pointed and rounding off the corners) this reduces the drag so the boat can go faster.

Drav	and annotate your sailing boat here:
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Exp	ain two improvements you could make to your boat:
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Exp	ain two improvements you could make to your boat:
Exp	ain two improvements you could make to your boat:

Egg Parachutes



WHAT YOU DO:

The aim is to construct a parachute to allow an egg to be dropped out of an upstairs window onto a hard surface without it breaking. Here are some suggestions:

- 1. Tie four or more strings near the corners or edges of the piece of thin material so that it will act as a parachute.
- **2.** Use the hard boiled egg initially. Package it well, particularly underneath, to cushion the impact when it lands.
- **3.** Attach the other end of the strings to the egg package or basket without getting the strings tangled up!

Ask an adult to hold the parachute by the middle, with the egg package hanging down, drop it out of an upstairs window onto hard ground (e.g. concrete). Time the descent of the egg and then check whether it has broken.

Modify and improve your design as required; for example you could make a larger parachute to slow the egg down more (time the descent to see if this has increased). You could change the number of strings or re-position them to improve your parachute, and/or use more packaging underneath the egg.

Once you are happy with your design, place the raw egg in the package instead of the hard boiled egg. Once it has descended, check whether the raw egg has broken.



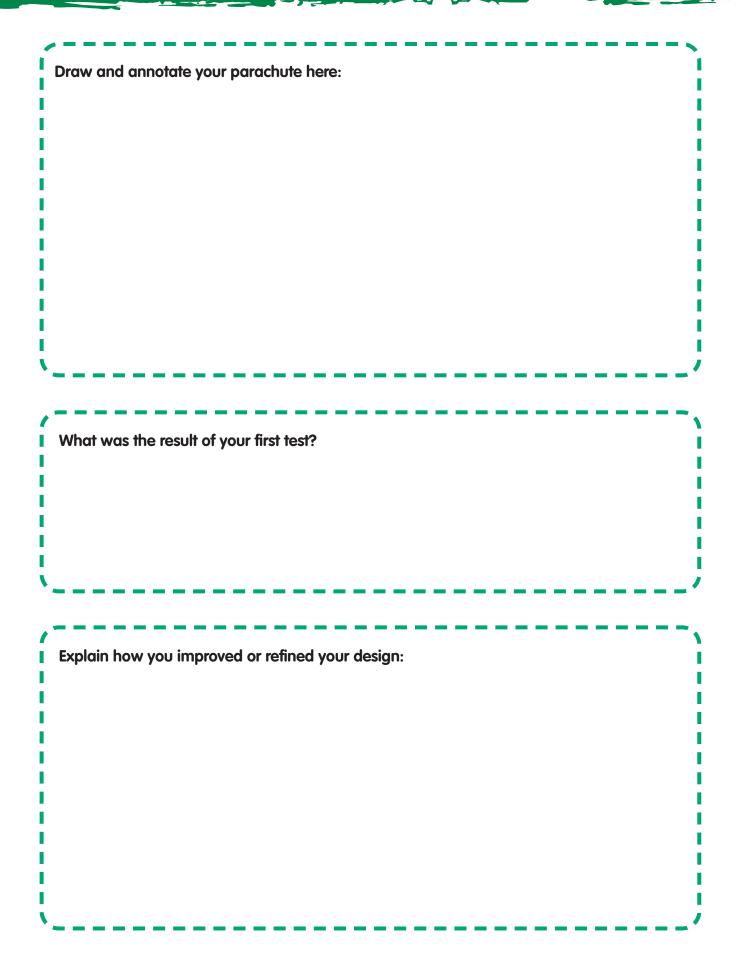
STEM Explanation: The egg and parachute are pulled downwards by gravity.

As they move down the air pushes against them.

The parachute is relatively large; the air resistance gives rise to an upward pull, slowing down the descent of the egg.

The egg must be packaged well to absorb and cushion the impact when it hits the ground.

To prevent the egg from breaking, you can try increasing the air resistance, cushioning the egg better, or both.



Core Movements

Work through these stretching activities every day and fill in your fitness log. Ask your Parent or Guardian to sign off your activity.



PE Activity I



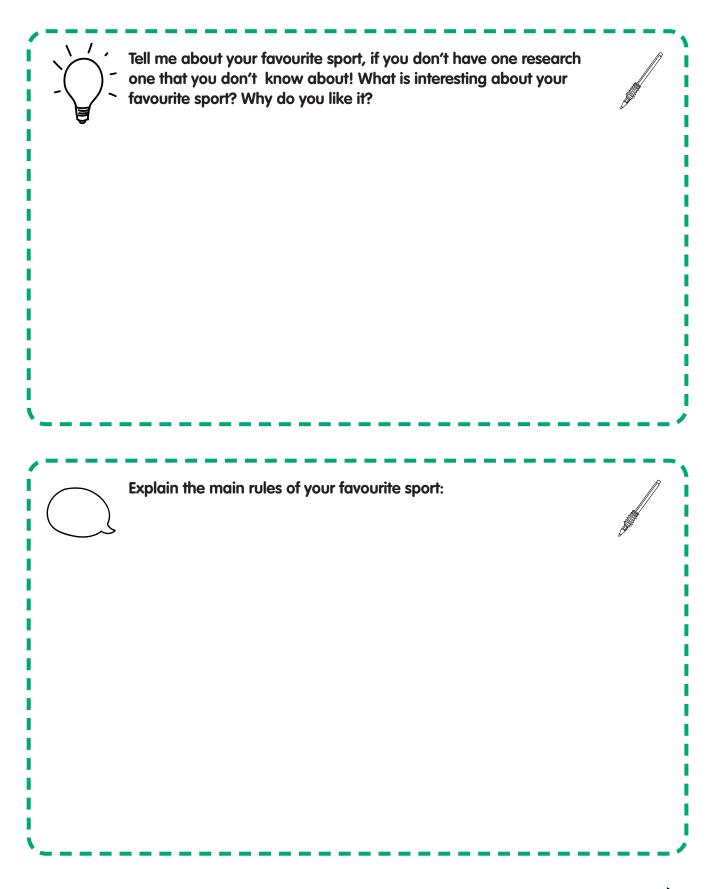


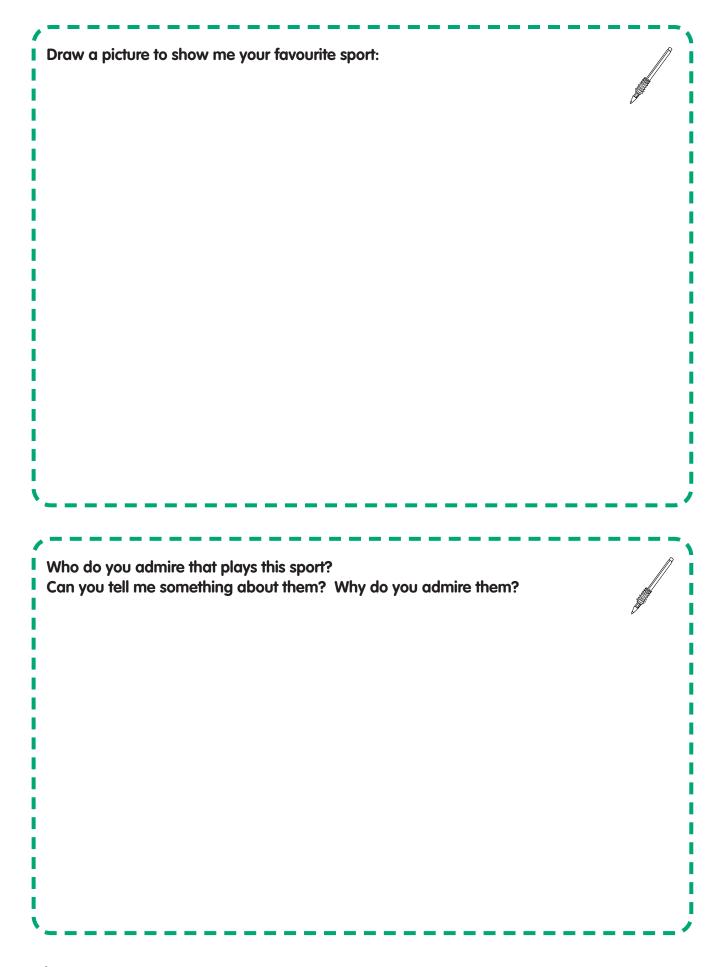
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Day	Number of Reps	Signed



Do you play a sport for school? Or as part of a club outside of a school? Do you watch a sport on TV or live sporting events? What is your favourite sport?





The Olympics

The Olympics began in Ancient Greece and ran every four years from 776BC to at least 393AD. The modern Olympic Games also began in Greece in 1896, taking place in Athens.

Over 200 nations now compete in the Summer and Winter Olympic Games which are held every four years.

The Paralympic games are also held every 4 years in the same year as the Summer Olympics and have done since 1960.

The five interlocking rings in blue, yellow. Black, green and white are known as the Olympic rings and was created in 1913.

The rings represent all the colours of the flags in the world.



Activity

Imagine that you are a sports journalist for your local paper and have been asked to report on **an amazing day at the Olympic Games.**

Luckily you have a time machine so you can travel to **any** Winter, Summer or Paralympic Games in either the past or the future.

Write up your article in the box provided – remember to lay it out in a newspaper article format.

PE Activity 3



You have been asked to design a brand new online game suitable for boys and girls aged 7 - 11. The game should have a retro theme like the video games of the 1980's and 1990's.

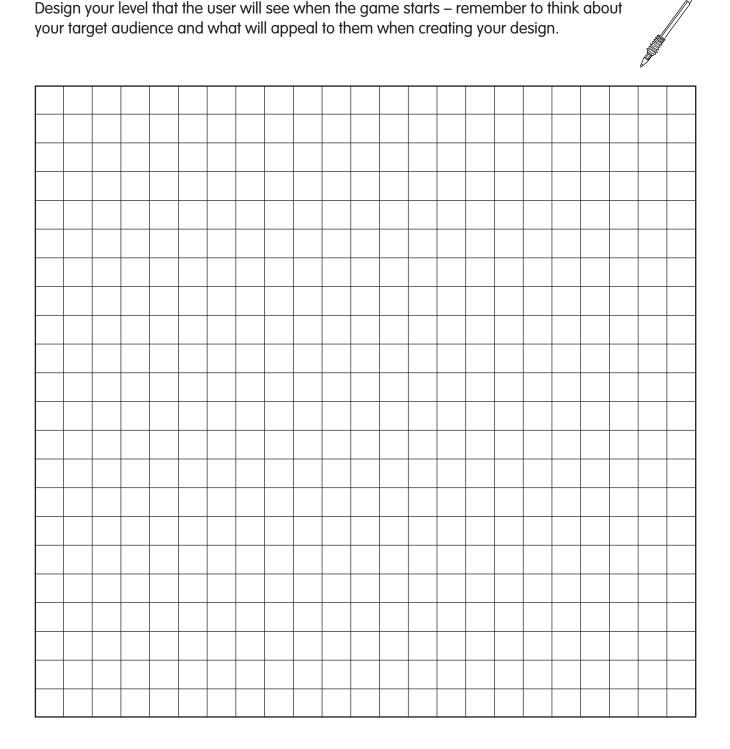


Your first task is to design the Protagonist of your game. As the game will follow a retro theme the hero should be designed in pixels.

Pixels are the tiny dots of coloured light that make up images when displayed on a screen, like a computer monitor.		
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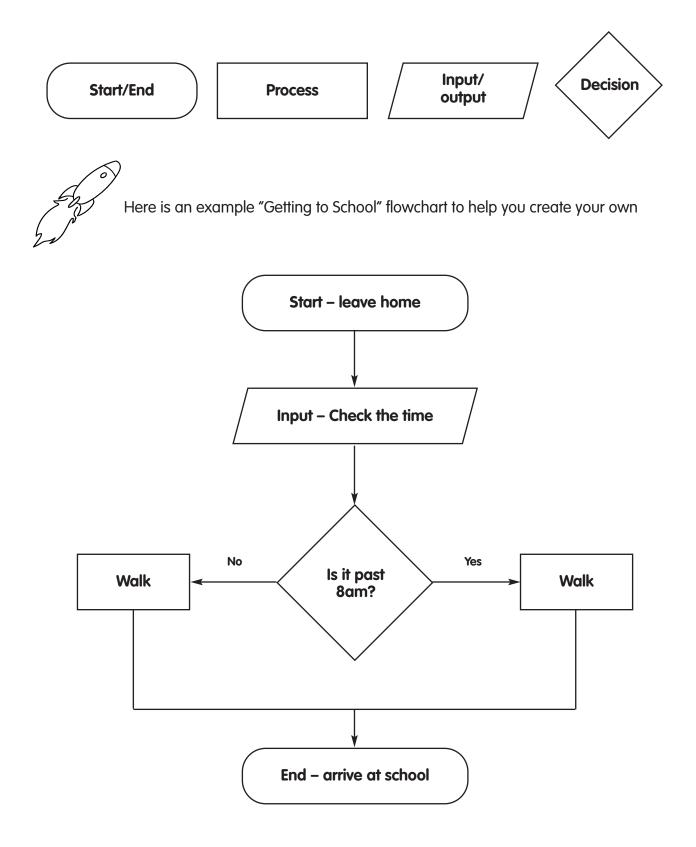
Explain the key elements of the game; what is its name? Where is it set? What is the aim? How do you win/lose?

 Design your level that the user will see when the game starts - remember to think about your target audience and what will appeal to them when creating your design.





Explain how the point system will work which causes you to win or lose the level. Use the flow chart symbols to create a flowchart which explains how the score is calculated.



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Design your flowchart here (tip: work in pencil or work it out on scrap paper first)		
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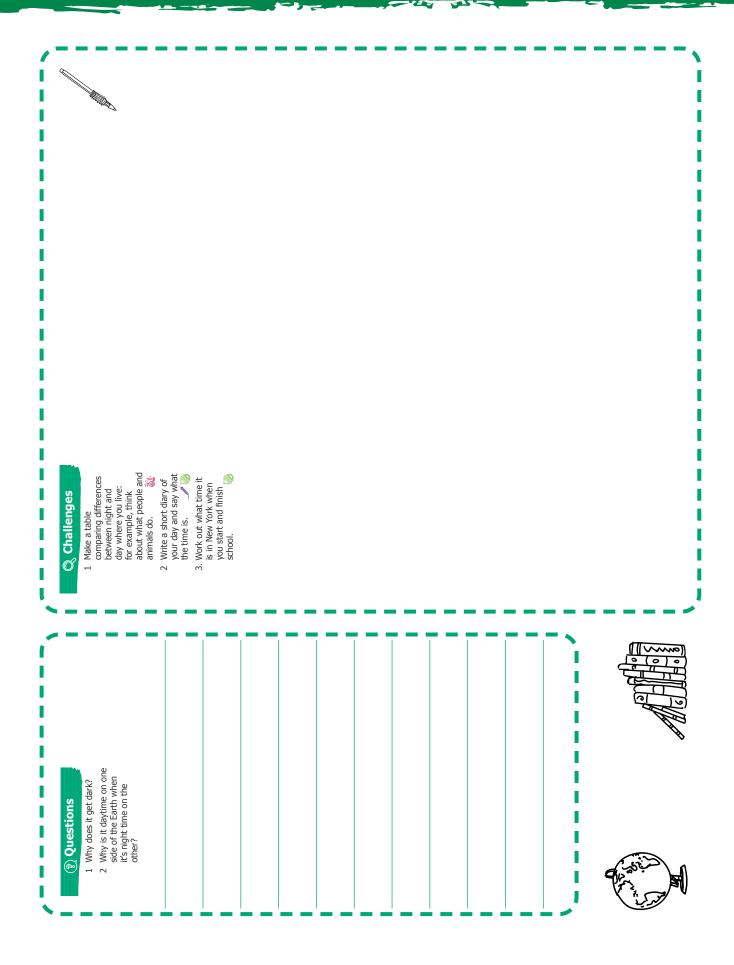
Our World - Night and Day

GOO Teaching Atlas 05 Earth Tokyo 20:00 (+8 hours) December z When you're going to bed someone else is just starting their day! These clocks show the time in different parts of the world when it is midday in London, U.K. S As the Earth makes its yearly orbit, places tilted away from the Sun get less hours of daylight while those tilted towards it, get more. London Midday 12:00 New York 07:00 -5 hours) Light rays Hours of daylight Los Angeles 04:00 -8 hours) All in a day Sun The Earth spins on its axis every 24 hours. Places which face towards the Sun get daylight. Places which face away from the sun get night. Our planet Earth takes a year to orbit the Sun. As it does this, it spins on its axis once every 24 hours, giving us night and day. Light rays **Our world –** Night and day Night and day June z ١ight Earth S 2 Why is it daytime on one side of the Earth when it's night time on the other? Make a table comparing differences between night and day where you live: for example, think about what people and animals do. Write a short diary of your day and say what the time is. Work out what time it is in New York when you start and finish school. 1 Why does it get dark? Challenges (?) Questions 04 GOD Teaching Atlas Key words AxisEarthOrbitSun 2 m.

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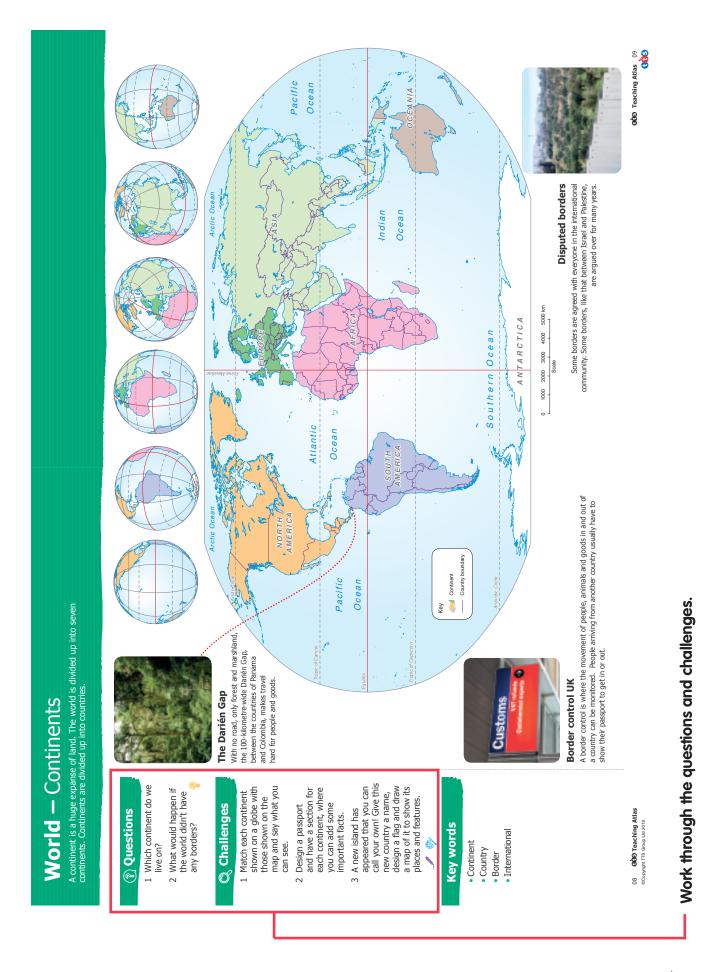
vight TTS Group Ltd 2019

Geography Activity I



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Continents, Countries and Oceans



Geography Activity 2

 Questions 1. Find and list the 5 oceans: 1. Which continent do we 	Inve on: 2 What would happen if the world didn't have any borders? S	 Find the equator. List the countries that sit on the equator: 	3. Find the country that you live in. Which countries and oceans border your country?	
Questions Which continent (I Which continent (What would ha the world didn' any borders? 			A still

What a Wonderful World

Create an A to Z of words all linked to our wonderful world! Why not illustrate your A to Z too!	
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Ε	
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Geography Activity 3

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My Family Timeline

A timeline is a listing of events in **chronological order**. This means that the events are shown in the order that they happened.

Here is an example of a TTS Bot Timeline:				
January 2008 Bee-Bot was born	<u></u>	June 2019 Rugged Robot was born	ACTOR OF	
\bigcirc	January 2013 Bee-Bot's brother Blue-Bot was born		January 2020 Rugged Robot had a big adventure and won his first award!	



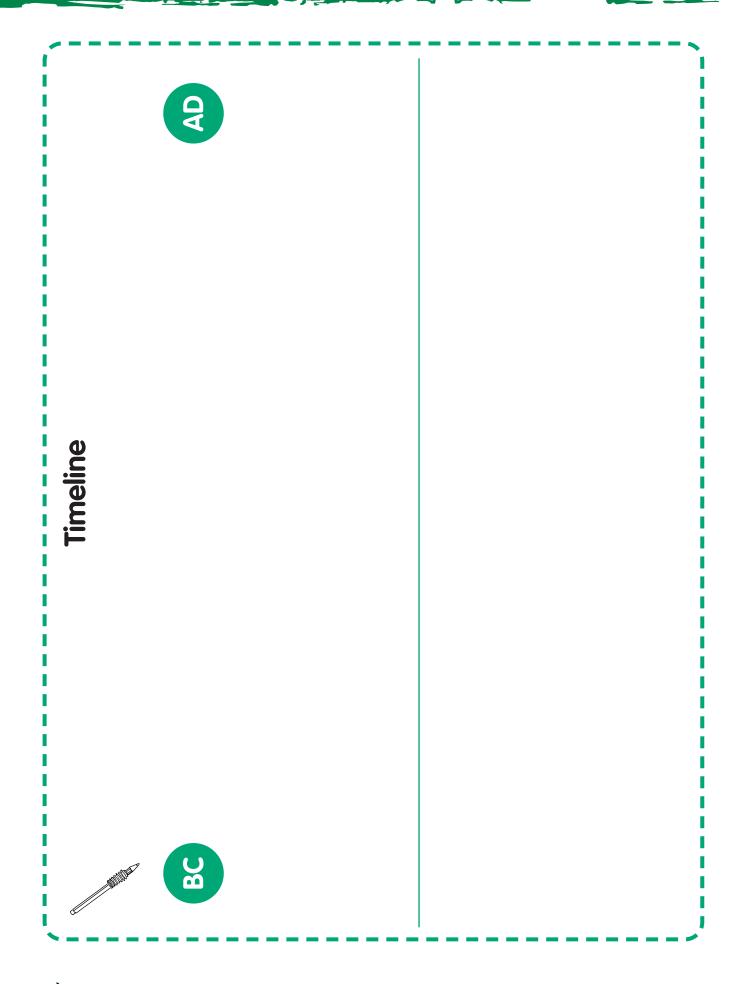
History Activity I

Historical Timelines

There are so many changes in history that influence our lives today. Timelines help us to put these events in chronological order.

~			
 Complete these tasks to create your own historical timeline: Cut out the historical periods on page 101. Stick them in chronological order on your timeline. Research and record at least one key fact about each time period. 			
 Illustrate your timeline. 			
 Extra Task: Are there any other historical periods or events you can add to your timeline? 			
 Top Tip: Look at whether the date says AD or BC. Remember, AD is AFTER Jesus was born. BC was BEFORE Jesus was born. 	You may find that different sources give slightly different dates for some time periods. Why do you think this might be?		

History Activity 2



Artefacts

We can learn a lot about the past by looking at artefacts. Historians look closely at artefacts and ask and answer questions to try and discover what it tells us about the past.

Become a Historian and look at these artefacts. Answer the questions and see what you discover about the past.	
What do you think it is and why?	
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II	
Who might have used it? Why do you think this?	
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What do you this is and why?	
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What do you think these artefacts are and why?	
Who might have used them? Why do you think this?	