Our curriculum

Garfield Primary
Today's children, tomorrow's future.

Year 6 Spring Term 1

Maths

Fractions, Decimals and Percentages

The children will explore equivalence between fractions and decimals. Using fraction and decimal walls also enables children to see the relationship between fractions such as 1/5 and 2/10 and therefore their decimal equivalents. They look at methods for finding more complex equivalents by finding a common denominator of 100.

Next, children look at fractions as division to support them in converting between fractions and decimals. Children learn that, for example, ¾ can be interpreted as 3 ÷ 4.

The children will now move to explore percentages. They will use hundred squares and bar models to explore equivalents, for example 1/5 is the whole split into 5 equal parts and 100% split into 5 equal parts is 20%, so 1/5 = 20%. They recognise that if they can find an equivalent fraction with a denominator of 100, then they can easily find percentage equivalences. The children now use their conversion skills to order and compare fractions, decimals and percentages.

For their next step, the children calculate percentages of amounts for the first time by finding percentages of amounts that can be completed in one step, for example finding 1%, 10%, 20%, 25% and 50% by dividing by 100, 10, 5, 4 and 2 respectively.

They then build on this learning by finding percentages of amounts that require more than one step. Using knowledge of how to find 1%, 10%, 20%, 25%, 50%, children find multiples of these amounts. For example, to find 75% they can find 25% and multiply it by 3; to find 60% they can find 10% and multiply it by 6.

For the final step in this block, children use their understanding of percentages to find the whole number from a given percentage. For example, if they know 20% of a number, then they multiply that by 5 to work out 100%.

Ratio

Rosie has converted three-quarters to a decimal.

$\frac{3}{4} \times 25 = \frac{75}{100} = 0.75$ (× 25 above, × 25 below)

Use Rosie's method to find the decimal equivalents of the fractions.

$\frac{17}{20}$ $\frac{23}{50}$ $\frac{11}{25}$ $\frac{112}{200}$ $\frac{275}{500}$ $\frac{192}{300}$

Whitney converts $\frac{3}{5}$ to a percentage.

$\frac{3}{5} \times 20 = \frac{60}{100} = 60\%$

Use Whitney's method to convert the fractions to percentages.

$\frac{3}{4}$ $\frac{23}{50}$ $\frac{23}{25}$ $\frac{13}{20}$ $\frac{14}{20}$ $\frac{112}{200}$

Write <, > or = to compare the amounts.

$\frac{2}{3}$ ◯ 1.1 105% ◯ $\frac{19}{20}$ 1.01 ◯ 100%

There are four lots of 25% in 100%.

100%			
25%	25%	25%	25%

This means that to find 25% of an amount, you divide it by 4

Work out 25% of each number.

240 360 170 1

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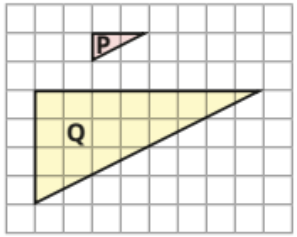
	The children are introduced to the idea of ratio representing a multiplicative relationship between two amounts. They see how one value is related to another by making simple comparisons, such as: “For every 2 blue counters, there are 3 red counters.” The children will begin to use the ratio symbol, a colon (:). For example, for every 2 red cubes there are 3 blue cubes, so red to blue is 2 : 3. Next, the children will explore the differences and similarities between ratios and fractions. For example, they are told that ¼ of a group of objects is blue, and they need to find the ratio of blue to not blue. Initially, they may think the ratio is 1 : 4, but concrete resources and diagrams can support them to see it is 1 : 3. The children now apply their understanding of ratio to drawing scale diagrams then move to enlarging shapes and describe enlargements. In the final lessons of this unit, the children use what they have learnt so far to solve a variety of problems involving ratio. They recognise that when they multiply or divide from one amount to another, they must do the same for the other value to keep the ratios equivalent. They will apply their knowledge of ratio and proportion to solving problems involving ingredients for recipes including simple scaling-up/scaling-down problems as well as problems with a given amount of a specific ingredient.	Complete the sentences to describe the fruit.  For every _____ pears, there are _____ bananas. For every _____ pears, there are _____ apples. This bar model represents $\frac{2}{5}$  This bar model represents 2 : 5  What is the same and what is different about the bar models? What is the scale factor of enlargement from P to Q? 

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English

Newspaper articles

Children will be learning to write newspaper articles and we will be studying the features of newspapers including the masthead and headline. We will also look at quotations and incorporate these features in our writing. As we will be learning about electricity, we will base our articles on recent technological advances including Tesla's electrical vehicles. We will continue using the 'Talk for Writing' approach to support children in structuring their newspaper articles.

Balanced arguments

We will be learning about the features of balanced arguments and how to use signposts when writing points for and against. Children will be writing a balanced argument about the advantages and disadvantages of using electrical vehicles.

Reading

We will be continuing developing comprehension skills and develop retrieval and inferencing skills. Children will be focusing on finding evidence from the text to justify responses. We will also develop our skills in summarising and evaluating the text. As vocabulary is an important aspect of our comprehension skills, children will continue clarifying keywords. In order to ensure we develop comprehension skills; it is important to support children in developing their stamina in reading. Please continue encouraging children to read daily at home.

Content domain reference	
2a	give / explain the meaning of words in context
2b	retrieve and record information / identify key details from fiction and non-fiction
2c	summarise main ideas from more than one paragraph
2d	make inferences from the text / explain and justify inferences with evidence from the text
2e	predict what might happen from details stated and implied
2f	identify / explain how information / narrative content is related and contributes to meaning as a whole
2g	identify / explain how meaning is enhanced through choice of words and phrases
2h	make comparisons within the text

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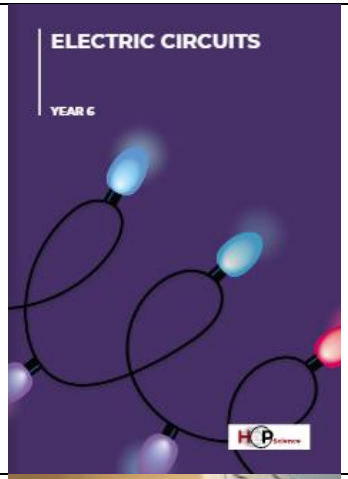
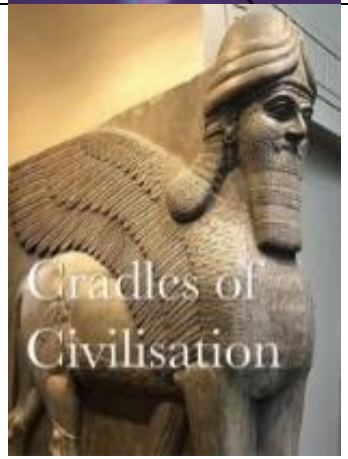
Science	**Electricity.** The children will recap their learning from year 4 to recall what an electric circuit is, identify the main components of a circuit and describe what they do. They will understand what voltage is and use this to compare batteries of different sizes and explain how putting batteries together can increase voltage. Over two lessons the children will identify electrical components and their symbols, explain how each component works, draw circuit diagrams and explain why these are useful. The children will look at some of the hazards of electricity, describe the risks involved and suggest ways to reduce these risks. Finally, they will learn about early electrical pioneers and their discoveries and describe key developments in the history of electricity.	
History	**Cradles of Civilisation**. Children will learn that 5000 years ago the lands we now know as Iraq were known as Sumer and this is where writing began. They will find out about the land of Sumer was where two rivers flowed into the sea. The rivers were the Tigris and Euphrates and they gave rise to what is known as The Fertile Crescent, which stretched all the way from Mesopotamia to Egypt. They will also find out that the Sumerians had their own ancient system of writing known as Cuneiform. One of the favourite stories of the Sumerians was about a king from Babylon and is known as the 'Epic of Gilgamesh'. Other cradles of civilisation are the Indus Valley Civilisation and the Shang civilisation in China. All the cradles of human civilisation had things in common: they each began with people, who had once been nomadic, starting to build permanent places to live by a river, they worshipped gods, invented writing and created art.	

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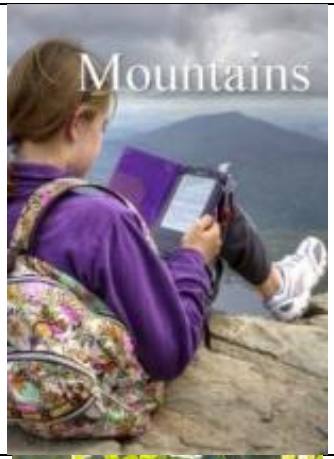
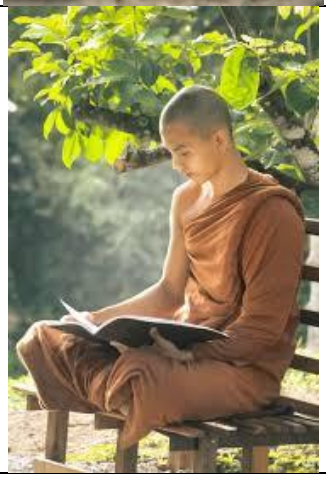
Geography	**Mountains**. Children will find out that the highest mountain in the UK is Ben Nevis in Scotland. The highest mountain in the world is Mount Everest in the Himalayas mountain range. Wer will be learning about that the UK has some remarkable mountainous regions including the Brecon Beacons, the Highlands, the Lake District, Snowdonia, the Pennines and the Yorkshire Dales. Children will also find out in some parts of the world, people cut terraces into the slopes of mountains to build homes and grow crops on. We will also explore how mountains also attract tourists who love to walk and ski and admire the natural beauty all around them.	
RE	**Buddhism**. This will include a study of key events in the life of Siddattha Gotama including the four sights which changed his life and that 'Buddha' means one who is fully awake to the truth or 'Enlightened'. We will explore the belief in the 3 Jewels which is shared by all Buddhists then hear the story of 'The King's Elephant' which the Buddha used to teach that people are influenced by the company they keep. We will learn that the Buddhist community is made up of monks, nuns and lay Buddhists: the Sangha. Finally, we will learn the importance of meditation in Buddhism to find meaning and purpose in human life.	

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Computing	**Data handling** In this unit, the children will understand why barcodes and QR codes were created then create (and scan) their own QR code using a QR code generator website. They will explain how infrared can be used to transmit a Boolean type signal. After this, they will explain how RFID works, recall a use of RFID chips, and type formulas into spreadsheets. They will end the unit by taking real-time data, entering it effectively into a spreadsheet then presenting the data collected as an answer to a question. They will use what they have produced to help them recognise the value of analysing real-time data then use these skills to analyse and evaluate transport data and consider how this provides a useful service to commuters.	
PE	**Dance** During this unit the children will exploring gesture and formation, creating short dances, use dynamics to develop the dance and link the dance actions together to tell a story. they will end the unit by performing their dance.	
Art	**Drawing.** We will begin the unit by collecting imagery and annotating this. We will explore how different tools make a range of different effects. We will generate symbols to reflect our likes and dislikes then use our planning and experimentation to create a tile that is full of pattern, symbols and colours that represent ourselves. Our next step will be to learn about term chiaroscuro: the relationship between light and dark. We will then use this technique in a tonal drawing and consider how it affects the final piece. For our final piece, we discuss ideas and decide on a cause we would like to create an art work about. We will use our previous work to help us develop ideas for our finished piece.	

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French	This term we will learn about parts of the body - **Mon Corps**. The children will learn French vocabulary for common parts of the body, such as arms, legs, head etc. They will describe hair and eye colour as well as some personal characteristics.	
RSHE/PSHE	Our topic this term is **Citizenship**. We will explore: • education as a human right and why education is important. • some environmental issues relating to food and food production. • the importance of caring for others and that we all have a responsibility to care for things and people around us. • what prejudice and discrimination are and why and how they should be challenged. • the value of diversity in society, including significant individuals. • the roles and responsibilities of people in government.	
Music	This term, year 6 will be learning to **play the ukulele**. They will begin by learning how to hold the ukulele and the names of the strings. They will be introduced to reading and playing chords before learning to play three tunes: 'My dog has fleas', 'A sailor went to sea' and 'There once was a man from Tennessee'.