



Year 5 Curriculum Coverage

2021-2022

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Maths</p> <p>Home Learning White Rose Maths</p>	<p>Place Value</p> <p>Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. Count forwards or backwards in steps of powers of 10 for any given number up to 1000000. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero.</p> <p>Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000.</p>	<p>Statistics</p> <p>Solve comparison, sum and difference problems using information presented in a line graph.</p> <p>Complete, read and interpret information in tables including timetables.</p> <p>Multiplication & Division</p> <p>Identify multiples and factors. Know and use the vocabulary of prime numbers, prime factors and composite numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19.</p>	<p>Fractions</p> <p>Compare and order fractions whose denominators are multiples of the same number.</p> <p>Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements.</p> <p>Add and subtract fractions with the same denominator and denominators that are multiples of the same</p>	<p>Fractions</p> <p>Add and subtract fractions with the same denominator and denominators that are multiples of the same number. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Read and write decimal numbers as fractions [for example $0.71 = \frac{71}{100}$].</p> <p>Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</p>	<p>Properties of shapes</p> <p>Identify 3D shapes, including cubes and other cuboids, from 2D representations. Use the properties of rectangles to deduce related facts and find missing lengths and angles. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. Know angles are measured in degrees: estimate and compare acute, obtuse, and reflex angles. Draw given angles and measure them in degrees.</p> <p>Identify: angles at a point and one whole</p>	<p>Converting units & volumes</p> <p>Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml]. Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. Solve problems involving converting between units of time.</p> <p>Estimate volume [for example using 1cm³ blocks to build</p>

	<p>Solve number problems and practical problems that involve all of the above.</p> <p>Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</p> <p>Addition & Subtraction Add and subtract numbers mentally with increasingly large numbers.</p> <p>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p>	<p>Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.</p> <p>Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.</p> <p>Recognise and use square numbers and cube numbers. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</p> <p>Perimeter & Area Measure and calculate the perimeter of composite rectilinear shapes in centimeters and metres. Calculate and compare the area of rectangles (including squares), including using</p>	<p>number. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Read and write decimal numbers as fractions [for example $0.71 = \frac{71}{100}$]. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</p>	<p>Decimals and percentages Read, write, order and compare numbers with up to three decimal places. Recognise and use thousandths and relate them to tenths, hundreds, and decimal equivalents. Round decimals with two decimal places to the nearest whole number and to one decimal place. Solve problems involving numbers up to three decimal places. Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal. Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$ and those fractions with a denominator of a multiple of 10 or 25.</p>	<p>turn (total 360°), angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) other multiples of 90°.</p> <p>Position & Direction</p> <p>Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.</p>	<p>cuboids (including cubes)] and capacity [for example, using water]. Use all four operations to solve problems involving measure.</p>
--	--	--	--	---	--	---

		standard units, square centimeters (cm ²) and square meters (m ²), and estimate the area of irregular shapes.				
English	<p>Castles</p> <p>In this unit, pupils will read and discuss an increasingly wide range of fiction. Pupils will study books that are structured in different ways and increase their familiarity with traditional tales from other cultures. Pupils will study about King Arthur and analyse extracts from 'Arthur High King of Britain' and create comparisons with 'Knights of the Round table'. Pupils will consider how authors have developed characters and settings in these mystery stories. Furthermore, pupils will study about some remarkable castles around the UK by interpreting non-</p>	<p>Firebird</p> <p>In this unit, the children will become familiar with the eBook 'Firebird' by Twinkl. They will explore characters and plan, write and evaluate sensory descriptions. They will explore the features of descriptive dialogues and plan, write and evaluate their own example. When looking at discussion texts, the children will explore the features of a discussion text before going on to plan, write and evaluate their own discussions. They will also investigate the features of persuasive formal letters and then work on their own examples. In work on poetry, children will try to learn a poem off</p>	<p>Animals – Jabberwocky</p> <p>In this unit, the children will learn all about narrative poetry. They will use the Jabberwocky poem to learn, perform, plan and write their own imitation poem. They will also learn how to structure and write non-chronological reports. Children will also show some awareness of intonation, tone and volume when performing a poem; discuss poetic conventions they are familiar with; use supporting ideas to write a small section of an imitation poem; use writing models to help them plan and write a non-chronological report closely based on the model; start to show some awareness</p>	<p>Space</p> <p>In this topic, the children will learn all about Tim Peake, a British astronaut. They will write a recount newspaper article about Tim Peake's return from space as well as a personal writing (diary entry) about his training. The children will also design a machine to make a special meal for Tim and write an information text (explanation) about how the machine works. Children will learn to use a range of causal conjunctions, time conjunctions and adverbials to help their texts flow; write a newspaper article which also includes correctly punctuated quotes. Children will develop their editing skills to spot their own errors</p>	<p>Our Environment</p> <p>In this unit pupils will continue to read and discuss a range of texts related to the environment. Pupils will explore the picture book 'A place for plastic'. Pupils will compare and evaluate information texts. Pupils will then go on to retrieve, record and present information from non-fiction writing. Moreover, pupils will explore the way in which authors present instruction texts. Pupils will analyse the structure and techniques used in the source texts. Pupils will also practice a range of skills including inference, contrast, retrieval, and effect which will ensure they are offered the</p>	<p>Around the world</p> <p>In this unit, pupils will explore a variety of texts including biographies and tales from around the world. Pupils will explore the purpose of and characteristics common to biographies and autobiographies. Children will analyse the effects of these features on a reader. Pupils will explore the structure and features of the various texts through drama, storytelling, writing and analysis of the texts. In work on poetry, pupils will explore the ways in which poets convey messages and tell stories. Pupils will discuss the different</p>

	<p>fiction texts. In addition to this, pupils will also take part in debates and be given an opportunity to write their own balanced arguments about castle ruins.</p>	<p>by heart to perform. Children will self-assess, and peer assess their poetry performances using a checklist. Children will then write their own version of a famous poem, showing awareness of rhythm, rhyme and figurative language.</p>	<p>of how relative clauses can be used; name examples of organisational and presentational devices and try to include some in their reports.</p>	<p>and correct them; write a diary entry which includes a range of thoughts and feelings of the writer as well as sequencing events into chronological order.</p>	<p>opportunity to immerse themselves fully in the texts.</p>	<p>techniques, styles and syntax used by poets.</p>
<p>Science</p>	<p>FORCES- Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Identify the effects of air resistance, water resistance and friction that act between moving surfaces. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>	<p>LIVING THINGS AND HABITATS - Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals.</p>	<p>PROPERTIES AND CHANGES OF MATERIAL - Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Give reasons, based on evidence from</p>	<p>EARTH AND SPACE - Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Describe the movement of the Moon relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.</p>	<p>ANIMALS INCLUDING HUMANS - Describe the changes as humans develop to old age.</p>	<p>SCIENTISTS AND INVENTORS - In this unit pupils will learn about famous scientists and inventors linked to the Y5 science curriculum. They will learn about the life and work of David Attenborough and create a documentary about a living thing of their choice. The children will learn about how CSI technicians use scientific techniques to analyse evidence and prove or disprove theories. They will use chromatography to analyse the ink used in a spelling test and use this evidence to support their own theories. Children will find out about Margaret Hamilton</p>

			<p>comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.</p>			<p>and her invention of the software and computer code that enabled Apollo 11 to go to the Moon.</p> <p>They will research into her achievements, completing a timeline about her life. They will look at the classification of planets and create fact files on the planets in our solar system through finding out about Neil deGrasse Tyson's role in the reclassification of Pluto.</p>
History	<p>Arthur Wakerley</p> <p>In this unit, pupils will explore their local history. Pupils will analyse the life of Arthur Wakerley in depth and learn all about his legacy. They will interpret information about Arthur from the 1800s census. Pupils will infer and make conclusions using maps from 1888 – 1931. Pupils will be given an opportunity to take part in the Arthur Wakerley walking trail. Pupils will locate some</p>		<p>Anglo Saxons & Vikings</p> <p>In this unit, pupils will learn about the raids and invasions by Vikings in Anglo-Saxon Britain. The pupils will learn who the Vikings were as well as when and where they raided and settled. They will learn about significant events from the period and order these chronologically on a timeline. The children will find out about the Anglo-Saxon kings who ruled during the 'Viking Age' and examine their influence and significance in British</p>		<p>Early Islamic Civilisation</p> <p>In this unit, pupils will learn about the early Islamic civilisation. They will learn in detail about the significance and importance of Baghdad in helping to build and shape this early civilisation and examine how and why it developed into such a major world power. In addition to this, they will find out about the House of Wisdom and some of the influential people who worked and</p>	

	<p>historic buildings and explain the changes made by Arthur Wakerley in the local area. They will understand the importance of the buildings and works of Arthur in Leicester.</p> <p>Pupils will create comparisons between Victorian Leicester and modern Leicester.</p>		<p>history. In addition to this, they will learn about the Anglo-Saxon justice system and compare and contrast crimes, punishments and laws with their modern-day equivalents. The children will also have the opportunity to learn about different aspects of everyday Viking life. They will explore the types of houses that the Vikings lived in, what clothes they wore and even what types of food they ate.</p>		<p>studied there. They will study in detail about how early Islamic doctors made significant contributions to the development of medicine and surgery and how their work still influences the medical profession today. The children will also have the opportunity to learn about other significant discoveries and inventions made by Muslim scholars in the early Islamic civilisation and to explore how items were made and where and how they were traded with the rest of the world.</p>	
Geography		<p>Roman City – Leicester Now and Then</p> <p>In this unit, pupils will compare Roman Leicester to modern Leicester. Pupils will analyse maps and annotate the similarities and differences. They will explore human and physical features, learn the key features of maps including coordinates and symbols. Pupils will learn the importance</p>		<p>Earthquakes</p> <p>In this unit, pupils will learn about the destructive powers of nature. They will learn about how and why these natural phenomena occur, and the ways in which they affect people and the environment. Pupils will study the features and key aspects of earthquakes. Find out about the movement of tectonic plates and about seismic waves.</p>		<p>Rivers</p> <p>In this unit, pupils will find out more about why rivers are so important to the towns and villages that have developed on their banks. By looking at the features of rivers, and the natural and human ways that rivers change over time, children will explore the life stories of rivers. Children will learn</p>

		of settlements and human needs and how they have developed over time. Pupils will also be given a set of instructions and will be required to reach a target using their geographical skills.		Learn about life in an earthquake zone. Compile and practice a class earthquake drill. Find out how buildings are built to withstand earthquakes and then design your own earthquake-proof structure.		the names and locations of the major rivers of the UK and the world.
Computing	My Skills My Life- Relevance Program The Belonging project is one of 5 projects being delivered by the Gender Balance in Computing programme, funded by the Department for Education. In this project we are exploring ways of tackling girls' sense of belonging in computing, to increase their interest and engagement in the subject.	Connecting Computers In this unit, learners will develop their understanding of computer systems and how information is transferred between systems and devices. Learners will consider small-scale systems as well as large-scale systems. They will explain the input, output, and process aspects of a variety of different real-world systems. Learners will also take part in a collaborative online project with other class members and develop their skills in working together online	Scratch Programming In this unit, pupils develop their knowledge of 'selection' by revisiting how 'conditions' can be used in programming, and then learning how the 'if... then... else...' structure can be used to select different outcomes depending on whether a condition is 'true' or 'false'. They represent this understanding in algorithms, and then by constructing programs using the Scratch programming environment. They learn how to write programs that ask questions and use selection to control the outcomes based on the answers given. They use this knowledge to design a quiz in response to a given task and implement it as a program. To conclude the unit, learners evaluate their program by identifying how it meets the requirements of the task, the ways they have improved it, and further ways it could be improved.			