



SCIENCE CURRICULUM MAP			
	Autumn Term	Spring Term	Summer Term
Y1	<p>All About Me</p> <p>Biology: My Body & Senses Identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p> <p>Working Scientifically: Ask simple questions. Observe closely, using simple equipment. Perform simple tests. Use observations and ideas to suggest answers to questions.</p>	<p>Castles</p> <p>Chemistry: Everyday Materials Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>Working Scientifically: Ask simple questions. Observe closely, using simple equipment. Identify and classify. Use observations and ideas to suggest answers to questions.</p>	<p>On Our Field</p> <p>Biology: Identifying Animals & Plants Identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates. Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Describe and compare the structure of different common animals (birds, fish, amphibians, reptiles, mammals, invertebrates). Identify and name a variety of common plants, including garden plants, wild plants, trees and deciduous and evergreen plants. Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.</p> <p>Physics: Seasonal Changes Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.</p> <p>Working Scientifically: Ask simple questions. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Use observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.</p>
Y2	<p>London</p> <p>Chemistry: Materials Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Identify and compare the uses of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard.</p> <p>Working Scientifically: Ask simple questions. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Use observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.</p>	<p>The Arctic</p> <p>Biology: Living Things & Their Habitats Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants and how they depend on each other. Identify and name a variety of plants and animals in their habitats, including micro-habitats. Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p> <p>Working Scientifically: Ask simple questions. Identify and classify. Use observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.</p>	<p>Living & Growing</p> <p>Biology: Growing Plants Observe and describe how seeds and bulbs grow into mature plants. Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Biology: Growth & Survival Explore and compare the differences between things that are living, that are dead and that have never been alive. Notice that animals, including humans, have offspring which grow into adults. Investigate and describe the basic needs of animals, including humans, for survival (water, food and air). Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.</p> <p>Working Scientifically: Ask simple questions. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Use observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.</p>

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Y3	<p style="text-align: center;">Under the Ground</p> <p>Chemistry: Rocks & Fossils Compare and group together different kinds of rocks on the basis of their simple, physical properties. Relate the simple physical properties of some rocks to their formation (igneous or sedimentary). Describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock. Use scientific evidence to answer questions or to support findings.</p> <p>Biology: Health & Movement Identify that animals, including humans, need the right types and amounts of nutrition, that they cannot make their own food and that they get nutrition from what they eat. Identify that humans and some animals have skeletons and muscles for support, protection and movement.</p> <p>Working Scientifically: Ask relevant questions. Set up simple practical enquiries and comparative and fair tests. Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. Use results to draw conclusions and suggest new predictions. Use scientific evidence to answer questions or support findings. Identify differences, similarities or changes related to simple, scientific ideas and processes.</p>	<p style="text-align: center;">Rainforests</p> <p>Biology: Plants Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers. Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. Investigate the way in which water is transported within plants. Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p> <p>Working Scientifically: Ask relevant questions. Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Identify differences, similarities or changes related to simple, scientific ideas and processes.</p>	<p style="text-align: center;">Ancient Egypt</p> <p>Physics: Forces & Magnets Compare how things move on different surfaces. Notice that some forces need contact between two objects and some forces act at a distance. Observe how magnets attract or repel each other and attract some materials and not others. Compare and group together materials depending on whether they are attracted to a magnet and identify magnetic materials. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other.</p> <p>Physics: Light Understand we need light to see and dark is the absence of light. Notice that light is reflected from surfaces. Know light from the sun is dangerous and ways to protect eyes. Associate shadows with a light source being blocked by something; find patterns that determine the size of shadows.</p> <p>Working Scientifically: Ask relevant questions. Carry out simple practical enquiries and comparative, fair tests. Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers. Use scientific evidence to answer questions or support findings. Gather, record, classify and present data in a variety of ways.</p>
Y4	<p style="text-align: center;">London in WW2</p> <p>Physics: Changing Sound Identify how sounds are made, associating them with vibrating. Recognise that sound vibrations travel through a medium to the ear. Find patterns between sound pitch and sound source object. Find patterns between sound volume and strength of vibrations. Know that sounds get fainter as distance from the source increases.</p> <p>Physics: Electricity Identify common appliances that run on electricity. Identify whether or not a lamp will light in a simple circuit based on whether or not the lamp is part of a complete loop with a battery. Recognise that a switch opens and closes a circuit. Recognise some common conductors and insulators. Understand precautions for working safely with electricity. Construct simple series circuits, trying different components. Draw the circuit as a pictorial representation. Observe patterns, eg. that bulbs get brighter if more cells are added.</p> <p>Working Scientifically: Ask relevant questions. Set up simple practical enquiries and comparative and fair tests. Make accurate measurements using a range of equipment. Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests. Identify differences, similarities or changes related to simple, scientific ideas and processes.</p>	<p style="text-align: center;">Oceans & Seas</p> <p>Biology: Living Things & Their Habitats Identify and name a variety of living things in the local and wider environment, using classification keys to assign them to groups. Give reasons for classifying plants and animals based on specific characteristics. Recognise that environments are constantly changing and that this can sometimes pose dangers to specific habitats.</p> <p>Chemistry: States of Matter Compare and group materials together, according to whether they are solids, liquids or gases. Observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics. Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p> <p>Working Scientifically: Ask relevant questions. Gather, record, classify and present data in a variety of ways. Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Identify differences, similarities or changes related to simple, scientific ideas and processes. Use scientific evidence to answer questions or to support findings.</p>	<p style="text-align: center;">Roman Britain</p> <p>Biology: Eating and Digestion Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains, identifying producers, predators and prey.</p> <p>Working Scientifically: Ask relevant questions. Set up simple practical enquiries and comparative and fair tests. Gather, record, classify and present data in a variety of ways. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests. Use straightforward, scientific evidence to answer questions.</p>

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Y5	<p style="text-align: center;">Ancient Greece</p> <p>Chemistry: Materials Compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, conductivity, and response to magnets. Understand some materials will dissolve in liquid to form a solution and how to recover a substance from a solution. Use knowledge of solids, liquids, gases to decide how mixtures might be separated, including filtering, sieving and evaporating. Give reasons, based on evidence from comparative and fair tests, for uses of materials, including metals, wood and plastic. Demonstrate that dissolving, mixing and changes of state are reversible. Explain that some changes result in the formation of new materials, and this is not usually reversible, including changes due to burning, oxidation and action of acid on bicarbonate of soda.</p> <p>Working Scientifically: Plan enquiries, recognising and controlling variables as necessary. Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work. Take accurate measurements using a range of equipment. Record data and results of increasing complexity using scientific diagrams and labels, tables, graphs, and models. Use results to make predictions for comparative and fair tests.</p>	<p style="text-align: center;">Earth & Space</p> <p>Physics: Earth & Space Describe the movement of the Earth and planets, relative to the Sun. Describe the movement of the Moon relative to the Earth. Describe Sun, Earth, 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>Science: Forces in Action Explain that objects fall towards the Earth due to the force of gravity acting between the Earth and the falling object. Identify the effect of drag forces, such as air resistance, water resistance and friction that act between moving surfaces. Describe, in terms of drag forces, why moving objects that are not driven tend to slow down. Understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.</p> <p>Working Scientifically: Record data and results of increasing complexity using diagrams and labels, tables, graphs, and models. Report findings, including oral and written explanations of results, explanations involving causal relationships, and conclusions. Use simple models to describe ideas, identifying scientific evidence used to support or refute ideas or arguments. Plan enquiries, recognising and controlling variables as needed. Use appropriate techniques, apparatus, and materials. Use results to make predictions and set up comparative & fair tests.</p>	<p style="text-align: center;">The Vikings</p> <p>Biology: Life Cycles Describe the life cycles common to a variety of animals, including humans (birth, growth, development, reproduction, death), and to a variety of plants (growth, reproduction and death). Describe the process of reproduction in some plants & animals. Describe the changes as humans develop from birth to old age.</p> <p>Biology: Healthy Bodies Identify and name the main parts of the human circulatory system, and explain the functions of the heart, blood vessels and blood (including the pulse and clotting). Recognise the impact of diet, exercise, drugs and lifestyle on the way human bodies function. Describe the ways in which nutrients and water are transported within animals, including humans.</p> <p>Working Scientifically: Take accurate measurements using a range of scientific equipment. Record data and results of increasing complexity using scientific diagrams, tables, bar and line graphs, and models. Report findings from enquiries, including oral and written explanations involving causal relationships, and conclusions. Present findings in writing, displays and other presentations.</p>
Y6	<p style="text-align: center;">The Kingdom of Benin</p> <p>Biology: Evolution & Inheritance Recognise living things have changed over time and fossils provide information about living things on Earth millions of years ago. Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. Describe how adaptation leads to evolution. Recognise how and why the human skeleton has changed over time, since we separated from other primates.</p> <p>Working Scientifically: Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, graphs and models. Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions. Present findings in writing, displays and other presentations. Use simple models to describe scientific ideas, identifying scientific evidence used to support or refute ideas or arguments.</p>	<p style="text-align: center;">Seeing Light</p> <p>Physics: Seeing Light Recognise that light appears to travel in straight lines. Use the idea that light travels in straight lines to explain objects are seen because they give out or reflect light into the eye. Explain we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p> <p>Physics: Changing Circuits Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Use recognised symbols to represent a simple circuit in a diagram.</p> <p>Working Scientifically: Plan enquiries, recognising and controlling variables where necessary. Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work. Take measurements, using a range of scientific equipment, with increasing accuracy and precision. Record data and results of increasing complexity using scientific diagrams and labels, tables, bar and line graphs, and models. Present findings in writing, displays and other presentations. Use test results to make predictions to set up further tests.</p>	<p style="text-align: center;">Britain After WW2</p> <p>Biology: Classifying Organisms Explain the classification of living things into broad groups according to observable characteristics and based on similarities and differences, including plants, animals and micro-organisms. Give reasons for classifying plants and animals based on specific characteristics.</p> <p>Working Scientifically: Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, graphs and models. Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions. Present findings in writing, displays and other presentations. Use simple models to describe scientific ideas, identifying scientific evidence used to support or refute ideas or arguments.</p>