

| Year 1 | | | | | |
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| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| All about me | Manufacturing in Birmingham | Moom Zoom | Traditonal Tales | Enchanted Woodland | Seaside |
| <p>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>Talk about what I can see hear touch or taste.</p> <p>I can identify and name a variety of animals including fish, amphibians, reptiles, birds and mammals.</p> <p>I can identify and name animals that are carnivores, herbivores and omnivores.</p> <p>I can describe and compare the structure of animals (fish, amphibians, reptiles, birds and mammals, including pets).</p> <p>Ask simple questions.</p> | <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</p> <p>Describe the simple physical properties of a variety of everyday materials.</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>I can carry out simple tests.</p> <p>Ask simple questions.</p> <p>I can observe closely and describe what I see.</p> <p>I can try to answer scientific questions with support.</p> <p>I can make a simple prediction.</p> <p>I can try to answer scientific questions with support.</p> | <p>Observe and describe weather associated with the seasons and how day length varies.</p> <p>Obeserve changes across the four seasons</p> <p>Know how day length changes.</p> <p>I can carry out simple tests.</p> <p>Observe closely, using simple equipment.</p> <p>Ask simple questions.</p> <p>I can observe closely and describe what I see.</p> <p>I can try to answer scientific questions with support.</p> <p>I can make a simple prediction.</p> <p>I can find simple patterns in my results.</p> | <p>I can describe and compare the structure of animals (fish, amphibians, reptiles, birds and mammals, including pets).</p> <p>I can describe and compare the structure of animals (fish, amphibians, reptiles, birds and mammals, including pets).</p> <p>I can identify and name animals that are carnivores, herbivores and omnivores.</p> <p>Describe the simple physical properties of a variety of everyday materials.</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>I can carry out simple tests.</p> <p>Observe closely, using simple equipment.</p> | <p>Observe and describe weather associated with the seasons and how day length varies.</p> <p>Obeserve changes across the four seasons</p> <p>Know how day length changes.</p> <p>I can carry out simple tests.</p> <p>Observe closely, using simple equipment.</p> <p>Ask simple questions.</p> <p>I can observe closely and describe what I see.</p> <p>I can try to answer scientific questions with support.</p> <p>I can make a simple prediction.</p> <p>I can try to answer scientific questions with support.</p> <p>I can find simple patterns in my results.</p> | <p>Ask simple questions.</p> <p>I can observe closely and describe what I see.</p> <p>I can try to answer scientific questions with support.</p> <p>I can make a simple prediction.</p> <p>I can find simple patterns in my results.</p> |

| Year 2 | | | | | |
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| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Transport | Cadbury | Kings and Queens | Nurses | London | Great Explorers |
| <p>I can identify a variety of materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p>I can compare the suitability materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard</p> <p>I know shapes of solids can be changed by squashing, bending ,twisting and stretching</p> <p>I can compare and group together materials based on their simple physical properties. (similarities/ differences)</p> | <p>I can ask simple questions.</p> <p>I can suggest a question for an experiment.</p> <p>I can use my senses to observe and answer questions (independently).</p> <p>I can observe closely and describe what I can see.</p> <p>I know questions can be answered in different ways (first-hand experience/books/ICT).</p> <p>I can make a simple prediction.</p> <p>I can say whether what happened was what I expected.</p> <p>I can gather information from different sources (books/ ICT/Observations).</p> | <p>I know plants come from seeds.</p> <p>I can observe and describe how seeds and bulbs grow into mature plants.</p> <p>I know plants need water, light and warmth to grow.</p> <p>I know the difference between healthy and unhealthy plants.</p> <p>I can identify and name a variety of plants and animals in their habitats, including micro-habitats.</p> | <p>I can identify things that are living, dead, and things that have never been alive.</p> <p>I can compare living things and things that are not alive.</p> <p>I know that most living things live in different habitats.</p> <p>I can describe habitats and how they provide food and shelter for different animals and plants.</p> <p>I know how animals and plants need/ depend on their habitat.</p> <p>I can describe how animals scavenge and hunt for their food (plants and other animals).</p> <p>I can identify and name different sources of food.</p> <p>I can understand food chains.</p> | <p>I can find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>I know that animals, including humans, have offspring which grow into adults.</p> <p>I know why humans need to exercise, eat the right amounts of different types of food, and hygiene.</p> | <p>I can carry out simple tests using simple equipment (ruler).</p> <p>I can gather and record data (drawings and simple charts).</p> <p>I can find simple patterns in my results.</p> <p>I can explain what happened using some scientific language.</p> |

| Year 3 | | | | | |
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| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Mighty Metals | Flow - Canals | Tremors | Scrumdidlyumptious | Heroes and Villains | Tribal Tales |
| <p>I can compare how things move on different surfaces.</p> <p>I know that some forces need contact between two objects, but magnetic forces can act at a distance.</p> <p>I know how magnets attract or repel each other.</p> <p>I can compare and group together materials based on whether they are attracted to a magnet</p> <p>I can describe magnets as having two poles and a magnetic field.</p> <p>I can predict whether two magnets will attract or repel each other, depending on which poles are facing.</p> <p>I know magnets attract some materials and not others.</p> <p>I can identify some magnetic materials.</p> | <p>I can identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.</p> <p>I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p> <p>I can investigate the way in which water is transported within plants.</p> <p>I know what plants need for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.</p> | <p>I can recognise different types of rocks and describe the texture.</p> <p>I can compare and group together different kinds of rocks on the basis of their appearance and physical properties.</p> <p>I can describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>I can recognise that soils are made from rocks and organic matter.</p> | <p>I know that animals, including humans cannot make their own food; they get nutrition from what they eat.</p> <p>I can identify that animals, including humans, need the right types and amount of nutrition.</p> | <p>I can ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>I can set up simple practical and comparative tests.</p> <p>I can report on findings from investigations including oral and written explanations, displays or presentations of results and conclusions.</p> | <p>I know that humans and some other animals have skeletons.</p> <p>I know humans have muscles for support, protection and movement.</p> <p>I can recognise that they need light in order to see things and that dark is the absence of light</p> <p>I know that light is reflected from surfaces.</p> <p>I know that light from the sun can be dangerous and that there are ways to protect my eyes.</p> <p>I know that shadows are formed when the light from a light source is blocked by a solid object.</p> <p>I can find patterns in the way that the sizes of shadows change.</p> |

| Year 4 | | | | | |
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| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Misty Mountain Sierra | Yardley History | Burps Bile and Bottoms | I am a warrior | Anglo Saxons | Blue Abyss |
| <p>I can carry out a fair test and explain why it was fair or unfair.</p> <p>I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers, beakers and data loggers.</p> <p>I can record my findings using simple scientific language, labelled diagrams, line graphs, bar charts, and tables.</p> <p>I can report on findings from experiments, including written explanations or presentations of results and conclusions.</p> <p>I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>I can use straightforward scientific evidence to answer questions or to support my findings.</p> <p>I can compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>I can observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)</p> <p>I can identify the part played by evaporation and condensation in the water cycle and</p> | <p>I can recognise that vibrations from sounds travel through a material or substance to the ear (air).</p> <p>I can find patterns between the pitch of a sound and features of the object that produced it.</p> <p>I can find patterns between the volume of a sound and the strength of the vibrations that produced it.</p> <p>I can recognise that sounds get fainter as the distance from the sound source increases.</p> <p>I can set up simple practical and comparative tests.</p> | <p>I can describe the simple functions of the basic parts of the digestive system in humans.</p> <p>I can identify the different types of teeth in humans and their simple functions.</p> <p>I can identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>I can set up simple practical and comparative tests.</p> | <p>I can identify common appliances that run on electricity.</p> <p>I can construct a simple series electrical circuit.</p> <p>I can gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Identifying and naming its basic parts (cells, wires, bulbs, switches and buzzers).</p> <p>I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> | <p>I can construct and interpret a variety of food chains, identifying producers, predators and prey.</p> <p>I can recognise common conductors and know some metals are good conductors.</p> <p>I can recognise some insulators and know how they are used in everyday life.</p> <p>I can identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.</p> <p>I can read and spell scientific vocabulary correctly and with confidence, using my reading and spelling knowledge.</p> <p>I can ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>I can make predictions using scientific knowledge.</p> | <p>I can recognise that living things can be grouped in a variety of ways.</p> <p>I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>I can recognise that environments can change and that this can sometimes pose dangers to living things.</p> <p>I can recognise that environments can change and that this can sometimes pose dangers to living things.</p> |

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| associate the rate of evaporation with temperature I can identify how sounds are made, associating some of them with something vibrating. | | | | | |
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| Year 5 | | | | | |
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| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Princes Peasants and Pestilence | Lunar Society | Beast Creator | Beast Creator / Star Gazers | Star Gazers | Alchemy Island |

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| <p>I can plan different types of scientific investigations to answer questions.</p> <p>I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>I can present findings from investigations, including conclusions, patterns and explanations of results, in oral and written forms such as presentations.</p> <p>I can describe the life process of reproduction in some plants and animals.</p> <p>I can make predictions with an explanation using some scientific concepts.</p> | <p>I can describe the changes as humans develop to an old age.</p> <p>I can describe the life process of reproduction in some plants and animals.</p> <p>I can identify the effects of air resistance, water resistance and friction that act between moving surfaces.</p> <p>I can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p> <p>I can use test results to make predictions to set up further comparative and fair tests.</p> | <p>I can describe life processes such as nutrition and growth in plants.</p> <p>I can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p> <p>I can identify scientific evidence that has been used to support or contradict ideas or arguments.</p> <p>I can consider what sources of information, including first-hand experience, and a range of other sources, I will use to answer questions.</p> <p>I can use equipment with increasing accuracy reading standard measures such as thermometers, measuring jugs, timers, scales and measuring sticks.</p> | <p>I can give reasons, based on evidence, for the particular uses of everyday materials, including metals, wood and plastic.</p> <p>I can repeat experiments to get accurate readings.</p> <p>I can describe how to change one variable while keeping others the same.</p> <p>I consider how changing one variable can alter another and use the convention of 'er' words to describe this (eg. The heavier the load, the longer the spring)</p> | <p>I can use the idea of the Earth's rotation to explain day and night.</p> <p>I can describe the movement of the Moon around the Earth.</p> <p>I can describe the Sun, Earth and Moon as approximately spherical objects.</p> <p>I can explain the apparent movement of the sun across the sky.</p> <p>I can describe the movement of the Earth, and other planets around the Sun in the solar system.</p> <p>I can explain that objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p> | <p>I can demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>I can compare and group together everyday materials based on their properties (hardness, solubility, transparency, conductivity, electrical and thermal).</p> <p>I can explain that some changes create new materials, and this is sometimes irreversible (including changes with burning and acid on bicarbonate of soda).</p> <p>I can identify reversible and irreversible changes.</p> <p>I can use my knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</p> <p>I can investigate how different materials react to magnets.</p> <p>I can read, spell and pronounce scientific vocabulary correctly.</p> |
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| Year 6 | | | | | |
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| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Extreme Weather | A child's War | Blood heart | | | |

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| <p>I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p> <p>I can recognise that living things produce offspring of the same kind (offspring vary and are not identical to their parents).</p> <p>I can identify how animals and plants are adapted to suit their environment.</p> <p>I know that adaptation may lead to evolution.</p> <p>I can identify scientific evidence that has been used to support or contradict ideas or arguments.</p> <p>I can consider what sources of information, including first-hand experience, and a range of other sources, I will use to answer questions.</p> <p>I can use equipment with increasing accuracy reading standard measures such as thermometers, measuring jugs, timers, scales and measuring sticks.</p> | <p>I can give reasons for classifying plants and animals based on specific characteristics.</p> <p>I can describe how living things are classified into groups according to common characteristics (similarities and differences, including micro-organisms, plants and animals).</p> <p>I know how micro-organisms may be beneficial and harmful.</p> <p>I can use test results to make predictions to set up further comparative and fair tests.</p> <p>I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>I can present findings from investigations, including conclusions, patterns and explanations of results, in oral and written forms such as presentations.</p> | <p>I can identify and name the main parts of the human circulatory system.</p> <p>I can describe the functions of the heart, blood vessels and blood.</p> <p>I can recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p> <p>I can describe the ways in which nutrients and water are transported within humans.</p> | <p>I can recognize that light appears to travel in straight lines.</p> <p>I can use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.</p> <p>I can explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.</p> <p>I can read, spell and pronounce scientific vocabulary correctly.</p> <p>I can make predictions with an explanation using some scientific concepts.</p> <p>I can plan different types of scientific investigations to answer questions.</p> | <p>I can repeat experiments to get accurate readings.</p> <p>I can describe how to change one variable while keeping others the same.</p> <p>I consider how changing one variable can alter another and use the convention of 'er' words to describe this (e.g. The heavier the load, the longer the spring).</p> <p>I can compare the brightness of a bulb or the volume of a buzzer with the number and voltage of cells used in the circuit.</p> <p>I can use symbols when representing a simple circuit in a diagram.</p> <p>I can give reasons for variations in how components function (brightness of bulb, buzzer volume, on/off position of switches).</p> <p>I use appropriate scientific language and use scientific knowledge to support any conclusions.</p> |
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