



| Science – Progression of Knowledge, Skills and Understanding   |   |   |  |  |   |
|--|---|---|--|--|---|
| Year 1   | Year 2  | Year 3  | Year 4   | Year 5   | Year 6  |
| <p><b><u>Animals, including humans</u></b></p> <p>identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p><b>identify and name a variety of common animals that are carnivores, herbivores and omnivores</b></p> <p><b>describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</b></p> <p><b>identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</b></p> <p><b><u>Everyday materials</u></b></p> <p><b>distinguish between an object and the material</b> from which it is made</p> <p>identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p><b>describe the simple physical properties</b> of a variety of everyday materials</p> <p><b>compare and group together</b> a variety of everyday materials on the basis of their simple physical properties</p> <p><b><u>Plants</u></b></p> <p>identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>identify and describe the basic structure of a variety of common flowering plants, including trees</p> | <p><b><u>Animals, including Humans</u></b></p> <p>notice that animals, including humans, have offspring which grow into adults</p> <p><b>find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</b></p> <p><b>describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</b></p> <p><b><u>Living things and their habitats</u></b></p> <p><b>explore and compare the differences between things that are living, dead, and things that have never been alive</b></p> <p><b>identify that most living things live in habitats to which they are suited</b> and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p><b>identify and name a variety of plants and animals in their habitats</b>, including microhabitats</p> <p><b>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</b></p> <p><b><u>Plants</u></b></p> <p>observe and describe how seeds and bulbs grow into mature plants</p> <p><b>find out and describe how plants need water, light and a suitable</b></p> | <p><b><u>Light</u></b></p> <p>recognise that they need light in order to see things and that dark is the absence of light</p> <p>notice that light is reflected from surfaces</p> <p>recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p><b>recognise that shadows are formed when the light from a light source is blocked by an opaque object</b></p> <p>find patterns in the way that the size of shadows change</p> <p><b><u>Forces</u></b></p> <p>compare how things move on different surfaces</p> <p>notice that some forces need contact between 2 objects, but <b>magnetic forces can act at a distance</b></p> <p><b>observe how magnets attract or repel each other and attract some materials and not others</b></p> <p>compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials</p> <p><b>describe magnets as having 2 poles</b></p> <p><b>predict whether 2 magnets will attract or repel each other, depending on which poles are facing</b></p> <p><b><u>Rocks</u></b></p> <p>compare and group together different kinds of rocks on the</p> | <p><b><u>States of matter</u></b></p> <p><b>compare and group materials together, according to whether they are solids, liquids or gases</b></p> <p><b>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)</b></p> <p>identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</p> <p><b><u>Electricity</u></b></p> <p>identify common appliances that run on electricity</p> <p>construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>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>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>recognise some common conductors and insulators, and associate metals with being good conductors</p> <p><b><u>Sound</u></b></p> <p><b>identify how sounds are made, associating some of them with something vibrating</b></p> | <p><b><u>Earth and Space</u></b></p> <p><b>describe the movement of the Earth and other planets relative to the sun in the solar system</b></p> <p><b>describe the movement of the moon relative to the Earth</b></p> <p><b>describe the sun, Earth and moon as approximately spherical bodies</b></p> <p><b>use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</b></p> <p><b><u>Properties and changes of materials</u></b></p> <p><b>compare and group together everyday materials on the basis of their properties</b>, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</p> <p><b>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</b></p> <p>use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</p> <p>give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p><b>demonstrate that dissolving, mixing and changes of state are reversible changes</b></p> <p>explain that some changes result in the formation of new materials, and that this kind of change is not</p> | <p><b><u>Evolution and inheritance</u></b></p> <p><b>recognise that living things have changed over time</b> and that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p><b>identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</b></p> <p><b><u>Animals, including humans</u></b></p> <p><b>identify and name the main parts of the human circulatory system</b>, and describe the functions of the heart, blood vessels and blood</p> <p><b>recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</b></p> <p>describe the ways in which nutrients and water are transported within animals, including humans</p> <p><b><u>Light</u></b></p> <p><b>recognise that light appears to travel in straight lines</b></p> <p>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><b>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</b></p> |

|  |  |   |   |   |  |
|--|--|---|---|---|--|
| <p><b><u>Seasonal Changes</u></b></p> <p><b>observe changes across the 4 seasons</b></p> <p>observe and describe weather associated with the seasons and how day length varies</p> | <p><b>temperature to grow and stay healthy</b></p> <p><b><u>Uses of everyday materials</u></b></p> <p><b>identify and compare the suitability of a variety of everyday materials</b>, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p> | <p><b>basis of their appearance and simple physical properties</b></p> <p><b>describe in simple terms how fossils are formed</b> when things that have lived are trapped within rock</p> <p>recognise that soils are made from rocks and organic matter</p> <p><b><u>Plants</u></b></p> <p><b>identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</b></p> <p>explore <b>the requirements of plants for life and growth</b> (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant</p> <p>investigate the way in which water is transported within plants</p> <p>explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal</p> <p><b><u>Animals, including humans</u></b></p> <p>identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat</p> <p><b>identify that humans and some other animals have skeletons and muscles for support, protection and movement</b></p> | <p><b>recognise that vibrations from sounds travel through a medium to the ear</b></p> <p><b>find patterns between the pitch of a sound and features of the object that produced it</b></p> <p><b>find patterns between the volume of a sound and the strength of the vibrations that produced it</b></p> <p><b>recognise that sounds get fainter as the distance from the sound source increases</b></p> <p><b><u>Living things and their habitats</u></b></p> <p><b>recognise that living things can be grouped in a variety of ways</b></p> <p>explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</p> <p><b>recognise that environments can change and that this can sometimes pose dangers to living things</b></p> <p><b><u>Animals including humans</u></b></p> <p><b>describe the simple functions of the basic parts of the digestive system in humans</b></p> <p><b>identify the different types of teeth in humans and their simple functions</b></p> <p><b>construct and interpret a variety of food chains, identifying producers, predators and prey</b></p> | <p>usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda</p> <p><b><u>Forces</u></b></p> <p>explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p><b>identify the effects of air resistance, water resistance and friction, that act between moving surfaces</b></p> <p><b>recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</b></p> <p><b><u>Living things and their habitats</u></b></p> <p>describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p><b>describe the life process of reproduction in some plants and animals</b></p> <p><b><u>Animals, including humans</u></b></p> <p>describe the changes as humans develop to old age</p> | <p>use the idea that light travels in straight lines to <b>explain why shadows have the same shape as the objects that cast them</b></p> <p><b><u>Electricity</u></b></p> <p>associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p><b>compare and give reasons for variations in how components function</b>, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</p> <p><b>use recognised symbols</b> when representing a simple circuit in a diagram</p> <p><b><u>Living things and their habitats</u></b></p> <p><b>describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</b></p> <p><b>give reasons for classifying plants and animals based on specific characteristics</b></p> |
|--|--|---|---|---|--|