



## Progression in knowledge

National Curriculum statements in red are from other linked topics.

### Plants

<b>Early learning goal</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ul>
<b>Year 1</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</li> <li><input type="checkbox"/> Identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul>
<b>Year 2</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Observe and describe how seeds and bulbs grow into mature plants.</li> <li><input type="checkbox"/> Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> <li><input type="checkbox"/> Identify and name a variety of plants and animals in their habitats, including microhabitats. (Y2 - Living things and their habitats)</li> </ul>
<b>Year 3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.</li> <li><input type="checkbox"/> 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.</li> <li><input type="checkbox"/> Investigate the way in which water is transported within plants.</li> <li><input type="checkbox"/> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li> </ul>
<b>Year 4</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Recognise that living things can be grouped in a variety of ways. (Y4 - Living things and their habitats)</li> <li><input type="checkbox"/> Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. (Y4 - Living things and their habitats)</li> <li><input type="checkbox"/> Recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 - Living things and their habitats)</li> </ul>
<b>Year 5</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)</li> </ul>
<b>Year 6</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> 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. (Y6 - Living things and their habitats)</li> <li><input type="checkbox"/> Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)</li> </ul>
<b>KS3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms.</li> </ul>

## Living things and their habitats

<b>Early learning goal</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ul>
<b>Year 1</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants)</li> <li><input type="checkbox"/> Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)</li> <li><input type="checkbox"/> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 - Animals including humans)</li> <li><input type="checkbox"/> Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals including humans)</li> <li><input type="checkbox"/> Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 – Animals, including humans)</li> <li><input type="checkbox"/> Observe changes across the four seasons. (Y1 - Seasonal change)</li> </ul>
<b>Year 2</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Explore and compare the differences between things that are living, dead, and things that have never been alive.</li> <li><input type="checkbox"/> 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.</li> <li><input type="checkbox"/> Identify and name a variety of plants and animals in their habitats, including microhabitats.</li> <li><input type="checkbox"/> 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.</li> <li><input type="checkbox"/> Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals including humans)</li> </ul>
<b>Year 3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)</li> </ul>
<b>Year 4</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Recognise that living things can be grouped in a variety of ways.</li> <li><input type="checkbox"/> Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</li> <li><input type="checkbox"/> Recognise that environments can change and that this can sometimes pose dangers to living things.</li> <li><input type="checkbox"/> Construct and interpret a variety of food chains, identifying producers, predators and prey. (Y4 - Animals, including humans)</li> </ul>
<b>Year 5</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</li> <li><input type="checkbox"/> Describe the life process of reproduction in some plants and animals.</li> </ul>
<b>Year 6</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals.</li> <li><input type="checkbox"/> Give reasons for classifying plants and animals based on specific characteristics.</li> </ul>
<b>KS3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Reproduction in humans (as an example of a mammal), including the structure and function of the male and female reproductive systems, menstrual cycle (without details of hormones), gametes, fertilisation, gestation and birth, to include the effect of maternal lifestyle on the foetus through the placenta.</li> <li><input type="checkbox"/> Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms.</li> <li><input type="checkbox"/> Differences between species.</li> </ul>

## Animals including humans

<b>Early learning goal</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ul>
<b>Year 1</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</li> <li><input type="checkbox"/> Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</li> <li><input type="checkbox"/> Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</li> <li><input type="checkbox"/> Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</li> </ul>
<b>Year 2</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Notice that animals, including humans, have offspring which grow into adults.</li> <li><input type="checkbox"/> Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</li> <li><input type="checkbox"/> Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li> </ul>
<b>Year 3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> 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.</li> <li><input type="checkbox"/> Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</li> </ul>
<b>Year 4</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the simple functions of the basic parts of the digestive system in humans.</li> <li><input type="checkbox"/> Identify the different types of teeth in humans and their simple functions.</li> <li><input type="checkbox"/> Construct and interpret a variety of food chains, identifying producers, predators and prey.</li> </ul>
<b>Year 5</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the changes as humans develop to old age.</li> <li><input type="checkbox"/> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 - Living things and their habitats)</li> <li><input type="checkbox"/> Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)</li> </ul>
<b>Year 6</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</li> <li><input type="checkbox"/> Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</li> <li><input type="checkbox"/> Describe the ways in which nutrients and water are transported within animals, including humans.</li> <li><input type="checkbox"/> 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. (Y6 - Living things and their habitats)</li> <li><input type="checkbox"/> Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)</li> </ul>
<b>KS3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Reproduction in humans (as an example of a mammal), including the structure and function of the male and female reproductive systems, menstrual cycle (without details of hormones), gametes, fertilisation, gestation and birth, to include the effect of maternal lifestyle on the foetus through the placenta.</li> <li><input type="checkbox"/> The consequences of imbalances in the diet, including obesity, starvation and deficiency diseases.</li> <li><input type="checkbox"/> The effects of recreational drugs (including substance misuse) on behaviour, health and life processes.</li> <li><input type="checkbox"/> The structure and functions of the gas exchange system in humans, including adaptations to function.</li> <li><input type="checkbox"/> The mechanism of breathing to move air in and out of the lungs.</li> <li><input type="checkbox"/> The impact of exercise, asthma and smoking on the human gas exchange system.</li> </ul>

## Evolution and inheritance

<b>Early learning goal</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ul>
<b>Year 1</b>	
<b>Year 2</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> 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. (Y2 - Living things and their habitats)</li> </ul>
<b>Year 3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Describe in simple terms how fossils are formed when things that have lived are trapped within rock. (Y3 - Rocks)</li> </ul>
<b>Year 4</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 - Living things and their habitats)</li> </ul>
<b>Year 5</b>	
<b>Year 6</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</li> <li><input type="checkbox"/> Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</li> <li><input type="checkbox"/> Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</li> </ul>
<b>KS3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Heredity as the process by which genetic information is transmitted from one generation to the next.</li> <li><input type="checkbox"/> A simple model of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and Franklin in the development of the DNA model.</li> <li><input type="checkbox"/> The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection.</li> <li><input type="checkbox"/> Changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction.</li> </ul>

## Seasonal changes

<b>Early learning goal</b>	<input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.
<b>Year 1</b>	<input type="checkbox"/> Observe changes across the four seasons. <input type="checkbox"/> Observe and describe weather associated with the seasons and how day length varies.
<b>Year 2</b>	
<b>Year 3</b>	<input type="checkbox"/> Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Y3 - Light)
<b>Year 4</b>	
<b>Year 5</b>	<input type="checkbox"/> Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky. (Y5 - Earth and space)
<b>Year 6</b>	
<b>KS3</b>	<input type="checkbox"/> The seasons and the Earth's tilt, day length at different times of year, in different hemispheres.

## Materials

<b>Early learning goal</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ul>
<b>Year 1</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Distinguish between an object and the material from which it is made.</li> <li><input type="checkbox"/> Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</li> <li><input type="checkbox"/> Describe the simple physical properties of a variety of everyday materials.</li> <li><input type="checkbox"/> Compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>
<b>Year 2</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</li> <li><input type="checkbox"/> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li> </ul>
<b>Year 3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (Y3 - Rocks)</li> <li><input type="checkbox"/> Describe in simple terms how fossils are formed when things that have lived are trapped within rock. (Y3 - Rocks)</li> <li><input type="checkbox"/> Notice that some forces need contact between two objects, but magnetic forces can act at a distance. (Y3 - Forces and magnets)</li> </ul>
<b>Year 4</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Compare and group materials together, according to whether they are solids, liquids or gases.</li> <li><input type="checkbox"/> 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).</li> <li><input type="checkbox"/> Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</li> </ul>
<b>Year 5</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> 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.</li> <li><input type="checkbox"/> Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.</li> <li><input type="checkbox"/> Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</li> <li><input type="checkbox"/> Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</li> <li><input type="checkbox"/> Demonstrate that dissolving, mixing and changes of state are reversible changes.</li> <li><input type="checkbox"/> 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.</li> </ul>
<b>Year 6</b>	
<b>KS3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Chemical reactions as the rearrangement of atoms.</li> <li><input type="checkbox"/> Representing chemical reactions using formulae and using equations.</li> <li><input type="checkbox"/> Combustion, thermal decomposition, oxidation and displacement reactions.</li> <li><input type="checkbox"/> Defining acids and alkalis in terms of neutralisation reactions.</li> <li><input type="checkbox"/> The pH scale for measuring acidity/alkalinity; and indicators.</li> </ul>

## Rocks

<b>Early learning goal</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ul>
<b>Year 1</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Distinguish between an object and the material from which it is made. (Y1 - Everyday materials)</li> <li><input type="checkbox"/> Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials)</li> <li><input type="checkbox"/> Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials)</li> <li><input type="checkbox"/> Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)</li> </ul>
<b>Year 2</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 - Uses of everyday materials)</li> </ul>
<b>Year 3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</li> <li><input type="checkbox"/> Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</li> <li><input type="checkbox"/> Recognise that soils are made from rocks and organic matter.</li> </ul>
<b>Year 4</b>	
<b>Year 5</b>	
<b>Year 6</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. (Y6 - Evolution and inheritance)</li> </ul>
<b>KS3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> The composition of the Earth.</li> <li><input type="checkbox"/> The structure of the Earth.</li> <li><input type="checkbox"/> The rock cycle and the formation of igneous, sedimentary and metamorphic rocks.</li> </ul>

## Light

<b>Early learning goal</b>	<input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.
<b>Year 1</b>	<input type="checkbox"/> Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)
<b>Year 2</b>	
<b>Year 3</b>	<input type="checkbox"/> Recognise that they need light in order to see things and that dark is the absence of light. <input type="checkbox"/> Notice that light is reflected from surfaces. <input type="checkbox"/> Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. <input type="checkbox"/> Recognise that shadows are formed when the light from a light source is blocked by an opaque object. <input type="checkbox"/> Find patterns in the way that the size of shadows change.
<b>Year 4</b>	
<b>Year 5</b>	
<b>Year 6</b>	<input type="checkbox"/> Recognise that light appears to travel in straight lines. <input type="checkbox"/> 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. <input type="checkbox"/> 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. <input type="checkbox"/> Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
<b>KS3</b>	<input type="checkbox"/> The similarities and differences between light waves and waves in matter. <input type="checkbox"/> Light waves travelling through a vacuum; speed of light. <input type="checkbox"/> The transmission of light through materials: absorption, diffuse scattering and specular reflection at a surface. <input type="checkbox"/> Use of ray model to explain imaging in mirrors, the pinhole camera, the refraction of light and action of convex lens in focusing (qualitative); the human eye. <input type="checkbox"/> Light transferring energy from source to absorber leading to chemical and electrical effects; photo-sensitive material in the retina and in cameras. <input type="checkbox"/> Colours and the different frequencies of light, white light and prisms (qualitative only); differential colour effects in absorption and diffuse reflection.

## Forces

<b>Early learning goal</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ul>
<b>Year 1</b>	
<b>Year 2</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 - Uses of everyday materials)</li> </ul>
<b>Year 3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Compare how things move on different surfaces.</li> <li><input type="checkbox"/> Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</li> <li><input type="checkbox"/> Observe how magnets attract or repel each other and attract some materials and not others.</li> <li><input type="checkbox"/> 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.</li> <li><input type="checkbox"/> Describe magnets as having two poles.</li> <li><input type="checkbox"/> Predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> </ul>
<b>Year 4</b>	
<b>Year 5</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</li> <li><input type="checkbox"/> Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.</li> <li><input type="checkbox"/> Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> </ul>
<b>Year 6</b>	
<b>KS3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Magnetic fields by plotting with compass, representation by field lines.</li> <li><input type="checkbox"/> Earth's magnetism, compass and navigation.</li> <li><input type="checkbox"/> Forces as pushes or pulls, arising from the interaction between two objects.</li> <li><input type="checkbox"/> Using force arrows in diagrams, adding forces in one dimension, balanced and unbalanced forces.</li> <li><input type="checkbox"/> Moment as the turning effect of a force.</li> <li><input type="checkbox"/> Forces: associated with deforming objects; stretching and squashing – springs; with rubbing and friction between surfaces, with pushing things out of the way; resistance to motion of air and water.</li> <li><input type="checkbox"/> Forces measured in Newtons, measurements of stretch or compression as force is changed.</li> </ul>

## Sound

<b>Early learning goal</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ul>
<b>Year 1</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)</li> </ul>
<b>Year 2</b>	
<b>Year 3</b>	
<b>Year 4</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify how sounds are made, associating some of them with something vibrating.</li> <li><input type="checkbox"/> Recognise that vibrations from sounds travel through a medium to the ear.</li> <li><input type="checkbox"/> Find patterns between the pitch of a sound and features of the object that produced it.</li> <li><input type="checkbox"/> Find patterns between the volume of a sound and the strength of the vibrations that produced it.</li> <li><input type="checkbox"/> Recognise that sounds get fainter as the distance from the sound source increases.</li> </ul>
<b>Year 5</b>	
<b>Year 6</b>	
<b>KS3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Waves on water as undulations which travel through water with transverse motion; these waves can be reflected, and add or cancel – superposition.</li> <li><input type="checkbox"/> Frequencies of sound waves, measured in Hertz (Hz); echoes, reflection and absorption of sound.</li> <li><input type="checkbox"/> Sound needs a medium to travel, the speed of sound in air, in water, in solids.</li> <li><input type="checkbox"/> Sound produced by vibrations of objects, in loud speakers, detected by their effects on microphone diaphragm and the ear drum; sound waves are longitudinal.</li> <li><input type="checkbox"/> Auditory range of humans and animals.</li> <li><input type="checkbox"/> Pressure waves transferring energy; use for cleaning and physiotherapy by ultra-sound.</li> <li><input type="checkbox"/> Waves transferring information for conversion to electrical signals by microphone.</li> </ul>

## Electricity

<b>Early learning goal</b>	<input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.
<b>Year 1</b>	
<b>Year 2</b>	
<b>Year 3</b>	
<b>Year 4</b>	<input type="checkbox"/> Identify common appliances that run on electricity. <input type="checkbox"/> Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. <input type="checkbox"/> 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. <input type="checkbox"/> Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. <input type="checkbox"/> Recognise some common conductors and insulators, and associate metals with being good conductors.
<b>Year 5</b>	
<b>Year 6</b>	<input type="checkbox"/> Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. <input type="checkbox"/> 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. <input type="checkbox"/> Use recognised symbols when representing a simple circuit in a diagram.
<b>KS3</b>	<input type="checkbox"/> Electric current, measured in amperes, in circuits, series and parallel circuits, currents add where branches meet and current as flow of charge. <input type="checkbox"/> Potential difference, measured in volts, battery and bulb ratings; resistance, measured in ohms, as the ratio of potential difference (p.d.) to current. <input type="checkbox"/> Differences in resistance between conducting and insulating components (quantitative). <input type="checkbox"/> Static electricity.

## Earth and space

<b>Early learning goal</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ul>
<b>Year 1</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Observe changes across the four seasons. (Y1 - Seasonal changes)</li> <li><input type="checkbox"/> Observe and describe weather associated with the seasons and how day length varies. (Y1 - Seasonal changes)</li> </ul>
<b>Year 2</b>	
<b>Year 3</b>	
<b>Year 4</b>	
<b>Year 5</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</li> <li><input type="checkbox"/> Describe the movement of the Moon relative to the Earth.</li> <li><input type="checkbox"/> Describe the Sun, Earth and Moon as approximately spherical bodies.</li> <li><input type="checkbox"/> Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</li> </ul>
<b>Year 6</b>	
<b>KS3</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Gravity force, weight = mass x gravitational field strength (g), on Earth <math>g=10 \text{ N/kg}</math>, different on other planets and stars; gravity forces between Earth and Moon, and between Earth and Sun (qualitative only).</li> <li><input type="checkbox"/> Our Sun as a star, other stars in our galaxy, other galaxies.</li> <li><input type="checkbox"/> The seasons and the Earth's tilt, day length at different times of year, in different hemispheres.</li> <li><input type="checkbox"/> The light year as a unit of astronomical distance.</li> </ul>