

## Science Progression of Skills

EYFS	
Understand the World (working scientifically and subject knowledge)	<ul style="list-style-type: none"> <li>- Comment and ask questions about aspects of their familiar world such as the place where they live or the natural world</li> <li>- Talk about some of the things they have observed such as plants, animals, natural and found objects</li> <li>- Talk about why things happen and how things work</li> <li>- Develop an understanding of growth, decay and changes over time</li> <li>- Show care and concern for living things and the environment</li> <li>- Look closely at similarities, differences, patterns and change</li> </ul>

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working Scientifically Developing Investigative skills as part of every lesson.	<ul style="list-style-type: none"> <li>- Adding simple questions and recognising that they can be answered in different ways</li> <li>- Observing closely, using simple equipment</li> <li>- Performing simple tests</li> <li>- Identifying and classifying</li> <li>- Using their observations and ideas to suggest answers to questions</li> <li>- Gathering and recording data to help in answering questions</li> <li>- <i>Pupils should read and scientific vocabulary at a level consistent with their increasing word and spelling knowledge at KS1</i></li> </ul>		<ul style="list-style-type: none"> <li>- Asking relevant questions and using different types of scientific enquiries to answer them</li> <li>- Using straightforward scientific evidence to answer questions or to support their findings</li> <li>- Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>- Setting up simple practical enquiries, comparative and fair tests (where only one variable is changed)</li> <li>- Identifying difference, similarities of changes related to simple scientific ideas and processes</li> <li>- Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>- Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables</li> <li>- Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</li> <li>- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results</li> <li>- <i>Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge</i></li> </ul>		<ul style="list-style-type: none"> <li>- Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>- Identifying scientific evidence that has been used to support or refute ideas or arguments</li> <li>- Taking measurements using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where necessary</li> <li>- Using test results to make predictions and to set up further comparative and fair tests</li> <li>- Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs</li> <li>- Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations or/and degree of trust in results, in oral and written form such as displays and other presentations</li> <li>- <i>Pupils should read, spell and pronounce scientific vocabulary correctly</i></li> </ul>	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Animals including humans</b>	<ul style="list-style-type: none"> <li>- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</li> <li>- Identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</li> <li>- 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>	<ul style="list-style-type: none"> <li>- Notice that animals, inc humans, have offspring that grow into adults</li> <li>- Find out about and describe the basic needs of animals, inc humans, for survival (water, food and air)</li> <li>- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</li> </ul>	<ul style="list-style-type: none"> <li>- Identify that animals, inc humans, need the right types and amount of nutrition, and that they cannot make their own food; nutrition comes from what they eat</li> <li>- Identify that humans and some other animals have skeletons and muscles for support, protection and movement</li> </ul>	<ul style="list-style-type: none"> <li>- Construct and interpret a variety of food chains, identifying producers, predators and prey</li> <li>- Describe the simple functions of the basic parts of the human digestive system</li> <li>- Identify the different types of teeth in humans and their simple functions</li> </ul>	<ul style="list-style-type: none"> <li>- Describe the changes as humans develop to old age including changes experienced in puberty</li> </ul>	<ul style="list-style-type: none"> <li>- Recognise the impact of diet, exercise drugs and lifestyle on the way their bodies function</li> <li>- Identify the main parts of the circulatory system</li> <li>- Describe the ways in which nutrient and water are transported within animals, inc humans</li> </ul>

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Everyday Materials/States of Matter/Properties and changes of Materials</b>	<ul style="list-style-type: none"> <li>- Describe the simple physical properties of a variety of everyday materials</li> <li>- Distinguish between an object and the material from which it is made</li> <li>- Identify and name a variety of everyday materials</li> <li>- Compare and group together a variety of everyday materials on the basis of their simple physical properties</li> </ul>	<ul style="list-style-type: none"> <li>- Identify and compare the suitability of a variety of everyday materials for particular uses</li> <li>- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</li> </ul>		<ul style="list-style-type: none"> <li>- Compare and group materials together, according to whether they are solids, liquids or gases. Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</li> <li>- 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> </ul>	<ul style="list-style-type: none"> <li>- Compare and group together everyday materials on the basis of their properties</li> <li>- Give reasons, based on evidence, for the particular uses of everyday materials</li> <li>- Know that some materials will dissolve in liquid to form a solution</li> <li>- Demonstrate that some changes of state are reversible changes</li> <li>- Explain that some changes result in the formation of new materials, and that this is not usually reversible</li> <li>- Use knowledge of solids, liquids and gases to decide how mixtures might be separated</li> </ul>	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Plants	<ul style="list-style-type: none"> <li>- Identify and describe the basic structure of a variety of common flowering plants, including trees</li> <li>- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> </ul>	<ul style="list-style-type: none"> <li>- Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</li> <li>- Observe and describe how seeds and bulbs grow into mature plants</li> </ul>	<ul style="list-style-type: none"> <li>- Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</li> <li>- Investigate the way in which water is transported within plants</li> <li>- Explore the part that flowers play in the life cycle of flowering plants</li> <li>- Explore the requirements of plants for life and growth and how they vary from plant to plant</li> </ul>			

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Light			<ul style="list-style-type: none"> <li>- Recognise that they need light in order to see things and that dark is the absence of light.</li> <li>- Notice that light is reflected from surfaces</li> <li>- Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</li> <li>- Recognise that shadows are formed when the light from a light source is blocked by an opaque object</li> <li>- Find patterns in the way that the sizes of shadows change</li> </ul>			<ul style="list-style-type: none"> <li>- Recognise that light appears to travel in straight lines</li> <li>- 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</li> <li>- 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</li> <li>- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</li> </ul>

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Earth and Space					<ul style="list-style-type: none"> <li>- Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</li> <li>- Describe the movement of the Moon relative to the Earth</li> <li>- Describe the Sun, Earth and Moon as approximately spherical bodies</li> <li>- 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>	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Rocks/Evolution and Inheritance</b>			<ul style="list-style-type: none"> <li>- Compare and group together different kinds of rocks on the basis of their appearance and their simple physical properties</li> <li>- Describe in simple terms how fossils are formed when things that have lived are trapped within rock</li> <li>- Recognise that soils are made from rocks and organic matter</li> </ul>			<ul style="list-style-type: none"> <li>- 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>- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</li> <li>- Identify how animals and plants are adapted to suit their environment in different ways, and that adaptation may lead to evolution</li> </ul>

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Living things and their habitats</b>		<ul style="list-style-type: none"> <li>- Explore and compare the differences between things that are living, dead, and things that have never been alive</li> <li>- 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</li> <li>- 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> </ul>		<ul style="list-style-type: none"> <li>- Recognise that environments can change and that this can sometimes pose dangers to living things</li> <li>- Recognise that living things can be grouped in a variety of ways</li> <li>- Explore and use classification keys</li> </ul>	<ul style="list-style-type: none"> <li>- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</li> <li>- Describe the life process of reproduction in some plants and animals</li> </ul>	<ul style="list-style-type: none"> <li>- Describe how living things are classified into broad groups</li> </ul>

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Sound</b>				<ul style="list-style-type: none"> <li>- Identify how sounds are made, associating some of them with something vibrating</li> <li>- Recognise that vibrations from sounds travel through a medium to the ear</li> <li>- Find patterns between the pitch of a sound and features of the object that produced it</li> <li>- Find patterns between the volume of the sound and the strength of the vibrations that produced it</li> <li>- Recognise that sounds get fainter as the distance from the sound source increases</li> </ul>		

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Forces and Magnets</b>			<ul style="list-style-type: none"> <li>- Compare how things move on different surfaces</li> <li>- Notice that some forces need contact between two objects, but magnetic forces can act at a distance</li> <li>- Observe how magnets attract or repel each other</li> <li>- Describe magnets as having two poles</li> <li>- Predict whether two magnets will attract or repel each other.</li> <li>- Observe how magnets attract some materials and not others</li> <li>- 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> </ul>		<ul style="list-style-type: none"> <li>- Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</li> <li>- Identify the effects of air resistance, water resistance and friction that act between moving surfaces</li> <li>- Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect</li> </ul>	