

Science – Progression of Skills

Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working Scientifically	<p>Talk about similarities and differences.</p> <p>Use simple scientific criteria</p> <p>Create drawings and models of the environment</p>	<p>Suggest how to find things out</p> <p>Decide what equipment to use for an experiment</p> <p>Chooses equipment to take measurements</p> <p>Can measure in non-standard measures</p> <p>Records results in a tally chart</p> <p>Presents results as a pictogram</p> <p>Answers simple questions about data presented in pictograms</p>	<p>Can use standard measures</p> <p>Decides how to collect and present data</p> <p>Records results in a tally chart, simple table, pictogram and block bar graph</p> <p>Answers comparative questions about two or more values in a pictogram or block graph</p>	<p>Can use standard measures to record findings</p> <p>Can read scales accurately and estimate between the numbers on the scale</p> <p>Decides how to collect and present the data</p> <p>Records results in a table and a graph form</p> <p>Answers questions about data presented in graphs</p>	<p>Chooses equipment with an appropriate data range</p> <p>Can decide how accurate to make the measures</p> <p>Can convert between different units of metric measure (eg: m/km)</p> <p>Can choose an appropriate scale for the y axis</p> <p>Can present findings in graphs and charts</p> <p>Can construct and record results in a table</p> <p>Answers questions of findings presented in graphs</p>	<p>Can present findings in appropriate ways including in tables, graphs and text</p> <p>Can present data in a line graph and read the findings</p>	<p>Can present suitable ranges and intervals to secure enough evidences</p> <p>Can interpret data from a range of sources</p> <p>Can present evidence for findings in appropriate ways</p> <p>Can write a clear question for a comparative test</p>

			Recognises whether a test is fair or not	Recognises when to use a fair test to answer a question Decides on what secondary information sources to use	Identifies simple tests to carry out in order to identify differences and similarities Can identify the variable Can identify which variables cannot be controlled	Identifies observable differences and similarities to observe or measure Can observe changes over time Can decide on sample size Can decide how long to make observations and how often	Can recognise when to look for patterns to answer a question Can recognise when to look for patterns to answer a question
Plants	Understand the key features of the life cycle of a plant and animal. Begin to understand the need to care for our local environment.	Can identify and name a variety of common wild and garden plants, including deciduous and evergreen trees Can identify and describe the basic structure of a variety of common flowering	Can observe and describe how seeds and bulbs grow into mature plants Can describe how plants need water, light and a suitable temperature to grow and stay healthy	Can identify the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers Can explore the requirements of plants for life and growth (air, light, water, nutrients from			

		plants, including trees		<p>soil, room to grow) and how they vary from plant to plant</p> <p>Can investigate the way in which water is transported within plants</p> <p>Can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal</p>			
Animals, including Humans		<p>Can identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p>Can identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>Can describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets</p> <p>Can 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>Notices that animals, including humans, have offspring which grow into adults</p> <p>Can find out and describe the basic needs of animals, including humans, for survival (water, food, air)</p> <p>Can describe the importance for humans to exercise, eating the right amounts of different types of food and hygiene</p>	<p>Can 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>Can identify that humans and some other animals have skeletons and muscles for support, protection and movement</p>			<p>Can identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood</p> <p>Recognises the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>Can describe the ways in which nutrients and water are transported within animals, including humans.</p>

<p>Everyday materials</p>	<p>Explore a collection of everyday materials.</p> <p>Describe what they can see, hear and feel when outside.</p>	<p>Can distinguish between an object and the material from which it is made</p> <p>Can identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>Can describe the simple physical properties of a variety of everyday materials</p> <p>Can compare and group together a variety of everyday materials on the basis of their simple physical properties.</p>	<p>Can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>Can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>				
<p>Seasonal changes</p>		<p>Observes changes across the four seasons</p> <p>Can describe weather associated with the seasons and how day length varies.</p>					
<p>Living things and their habitats</p>			<p>Can compare the differences between things that are living, dead, and things that have never been alive</p> <p>Can identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic</p>		<p>Recognises that living things can be grouped in a variety of ways</p> <p>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>Can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>Can describe the life process of reproduction in some plants and animals.</p>	<p>Can 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</p> <p>Gives reasons for classifying plants and</p>

			<p>needs of different kinds of animals and plants, and how they depend on each other</p> <p>Can identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>Can 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>		Recognises that environments can change and that this can sometimes pose dangers to living things.		animals based on specific characteristics.
Rocks				<p>Can compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>Can describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>Recognises that soils are made from rocks and organic matter.</p>			
Light				Recognises that they need light in order to see things and that dark is the absence of light			<p>Recognises that light appears to travel in straight lines</p> <p>Uses the idea that light travels in</p>

				<p>Notices that light is reflected from surfaces</p> <p>Recognises that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>Recognises that shadows are formed when the light from a light source is blocked by a solid object</p> <p>Can find patterns in the way that the size of shadows change.</p>			<p>straight lines to explain that objects are seen because they give out or reflect light into the eye</p> <p>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>Uses the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>
Forces and magnets	Explore and discuss different forces they can feel.			<p>Can compare how things move on different surfaces</p> <p>Can describe magnets as having two poles</p> <p>Notices that some forces need contact between two objects, but magnetic forces can act at a distance observe how magnets</p> <p>Can 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>Can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>Identifies the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognises that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>	

				Can predict whether two magnets will attract or repel each other, depending on which poles are facing.			
States of Matter					<p>Can compare and group materials together, according to whether they are solids, liquids or gases</p> <p>Observes 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>Can identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>		
Sound					<p>Can identify how sounds are made, associating some of them with something vibrating</p> <p>Recognises that vibrations from sounds travel through a medium to the ear</p> <p>Can find patterns between the pitch of</p>		

					<p>a sound and features of the object that produced it</p> <p>Can find patterns between the volume of a sound and the strength of the vibrations that produced it</p> <p>Recognises that sounds get fainter as the distance from the sound source increases.</p>	
Electricity					<p>Can identify common appliances that run on electricity, construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>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>Recognises 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>Recognises some common conductors</p>	<p>Associates the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>Can 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</p> <p>Uses recognised symbols when representing a simple circuit in a diagram.</p>

					and insulators, and associate metals with being good conductors.		
Properties and changes of materials						li	
Earth and Space						<p>Can describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>Can describe the movement of the Moon relative to the Earth</p> <p>Can describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>Uses the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p>	
Evolution and Inheritance							<p>Recognises 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>Recognises that living things produce offspring of the same kind, but normally offspring vary and</p>

							<p>are not identical to their parents</p> <p>Can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>
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