

Progression through the science curriculum

Updated 01.01.22

	Rec	Y1	Y2	Y3	Y4	Y5	Y6	Y7 (KS3)
Biology Life Processes								
Plants	<p>We are learning that plants and animals grow and change</p> <p>We are learning that there are lots of living things</p>	<p>We are learning that flowering plants have different parts</p>	<p>We are learning that plants need water, light and warmth</p> <p>We are learning that some things are living, some dead and some have never been alive</p>	<p>We are learning that to stay healthy plants need water, light nutrients and room to grow.</p> <p>We are learning that different parts of plants have different functions</p>		<p>We are learning that plants reproduce</p>		<p>We are learning that plants need energy from sunlight to make food (photosynthesis)</p> <p>We are learning about cells and cell organisation</p>
Animals Humans	<p>We are learning to look at and describe and name living things</p>	<p>We are learning that animals, including humans have different body parts, which have special functions</p>	<p>We are learning that animals need water, food and air</p> <p>We are learning that different animals need different diets</p> <p>We are learning about keeping healthy</p>	<p>We are learning that animals cannot make their own food</p> <p>We are learning that many animals, including humans have skeletons (function)</p>	<p>We are learning that some animals, including humans have teeth to help them eat</p> <p>We are learning about the digestive system</p>	<p>We are learning that animals reproduce</p>	<p>We are learning that some substances and lifestyle choices can have a negative impact on health</p> <p>We are learning about oxygen and how it is used in the human body (blood circulation)</p>	<p>We are learning about the skeletal and muscular systems</p> <p>We are learning about nutrition and digestion</p> <p>We are learning about the effects of recreational drugs</p> <p>We are learning about gas exchange systems</p>
Classification	<p>We are learning the names of living</p>	<p>We are learning that plants and animals can be grouped (e.g.</p>	<p>We are learning that plants and animals can be identified and</p>		<p>We are learning that plants and animals can be identified and</p>		<p>We are learning that a wider range of living things can</p>	<p>We are learning about detailed grouping and</p>

	things and to name some groups e.g. fruits/vegetables	plants deciduous and evergreen)	grouped (linked to habitat)		grouped according to keys and characteristics		be identified e.g. microorganisms	classification of organisms
Life Cycles	Plants and animals grow and change over their lives (caterpillar to butterfly)		We are learning that seeds and bulbs grow into plants We are learning that animals, including humans reproduce offspring which grow into adults	We are learning that plants make seeds, which grow into plants		We are learning that lifecycles differ for different species We are learning that humans have different stages of development between life and death	We are learning that living things produce offspring of the same kind, but are not identical	We are learning about human reproduction (as a mammal) We are learning about reproduction in plants
Interdependence	We are learning that living things need each other e.g. caterpillar needs leaves to eat		We are learning that different plants and animals live in different places We are learning that animals get their food from plants and other animals and are in turn consumed by other animals		We are learning that plants and animals are part of a food chain		We are learning that plants and animals are adapted to their environment We are learning that adaptation may lead to evolution	We are learning about relationships in an ecosystem We are learning about genetics and evolution (inheritance, chromosomes, DNA and genes)
Chemistry								
Materials: using and describing materials		We are learning that different materials are used to make different objects	We are learning that different materials are suitable for different uses (that can be seen)	We are learning that different materials have different properties (rocks)	We are learning that materials can be solids, liquids or gases	We are learning that different properties make different materials suitable for different uses (that can be measured) We are learning that materials can be sorted according to property		We are learning about the particulate nature of matter We are learning that all materials have mass We are learning about the Periodic Table

Materials: changing materials	We are learning that materials can be changed		We are learning that the shape of some materials can be changed by force or contact (push, squeeze)		We are learning that materials change state when heated or cooled	We are learning that some materials will dissolve in a liquid and that changes of state are usually reversible changes We are learning that changes including baking and burning (heat) will result in a new material, this is not usually a reversible change		We are learning about atoms elements and compounds We are learning about pure and impure substances, chemical properties / PH scales	
Materials: mixing and separating materials	We are learning that materials can be mixed together			We are learning that soils are a mixture of rocks and other matter (organic matter) We are learning that fossils are formed when trapped in rock		We are learning that mixtures may be separated by filtering, sieving and evaporating (reversible changes)		We are learning about chemical reactions and energetics We are learning about the composition and structure of the Earth	
Physics									
Light	We are learning about seeing (senses)	We are learning that we see with our eyes		We are learning that we need light to see things We are learning that light is reflected off materials, blocks and makes a shadow (shadows can change shape) We are learning that sunlight can be harmful			We are learning that light travels in straight lines We are learning that shadows have the same shape as the object casting them We are learning that we see objects when the light from a source reflects off them to our eyes	We are learning about light waves	

Sound	We are learning about hearing (senses)	We are learning that we hear with our ears			We are learning that sounds are made when something vibrates We are learning that the volume and pitch of a sound can be changed			We are learning about sound waves
Electricity					We are learning that electrical appliances need electricity from a source to work We are learning that a complete circuit is needed (conductors, components of circuit and symbols)		We are learning that an increase in voltage will cause an increase in current We are learning that some components in a circuit resist current more than others	We are learning about energy in a domestic context (fuels) We are learning about current electricity, static electricity and magnetism
Forces	As part of continuous provision we are exploring how things move, can be joined, can be built with etc.		We are learning about pushing and pulling making things move	We are learning that forces pushing and pulling can make things start moving stop or go faster/slower We are learning about magnets We are learning that when one object moves over another there is friction		We are learning about drag forces and resist movement We are learning that the force of gravity caused by the Earth causes objects to fall towards the centre We are learning that some mechanisms allow a smaller force to have a greater effect		We are learning about energy changes and transfers We are learning about motion and forces (describing motion e.g. speed= distance divided by time) We are learning about forces We are learning about pressure in fluids We are learning about conservation of matter
Earth in space	We are learning	We are learning that the sun				We are learning that the Earth, Sun		We are learning about space

	<p>that the sun appears to move across the sky</p> <p>We are learning the names of the planets, Moon, Sun and Earth</p>	<p>appears to move across the sky</p> <p>(geography – We are learning about the seasons)</p>				<p>and Moon are approximately spherical</p> <p>We are learning that the Earth is one of eight planets that orbit the Sun (once every year)</p> <p>We are learning that the Earth rotates once every 24 hours, Moon orbits the Earth and appears differently</p>		<p>physics (gravity, mass) the motions of the Sun, Moon, Earth, stars and planets</p>
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