

Yearly Science

Year Group: 5

<u>Term 1</u>	<u>Term 2</u>	<u>Term 3</u>
<p><u>Animals including humans</u> Describe the changes as humans develop to old age.</p>	<p><u>Animals including humans</u> Identify ways in which the appearance of humans changes as they get older. Identify some characteristics that will not change with age.</p>	<p><u>Animals including humans</u> Recognise stages in growth and development of humans including puberty.</p>
<p><u>Living things and their habitats:</u> Name the parts of a flower. Describe the functions of some parts of a flower. Describe the main functions of parts of a plant involved in reproduction. Compare methods of seed dispersal.</p>	<p><u>Living things and their habitats:</u> Describe the life process of reproduction in some plants and animals. Know that most animals reproduce by sexual reproduction. Sequence the life cycles of a variety of plants and animals.</p>	<p><u>Living things and their habitats:</u> Describe the simple functions of parts of the human reproductive system. Recognise the similarities in the life cycles of plants, animals and humans. Explain that living things need to reproduce if the species is to survive. Compare gestation periods (pregnancy) of different animals.</p>
<p><u>Properties of materials</u> 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. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</p>	<p><u>Properties of materials</u> 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. Demonstrate that dissolving, mixing and changes of state are reversible changes.</p>	<p><u>Properties of materials</u> Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.</p>
<p><u>Earth and space</u> Describe the Sun, Earth and Moon as approximately spherical bodies. Recognise that the Earth, Sun and Moon are spherical and support this with some evidence.</p>	<p><u>Earth and space</u> Identify and name the components of the solar system (i.e. Sun, Moon, Earth and other planets) Locate the Sun, Earth and other planets in the solar system. Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Use simple physical models to explain effects that are caused by the movement of the Earth. Explain that gravity is a force of attraction and it is what holds the planets in orbit around the Sun and the Moon in orbit around the Earth.</p>	<p><u>Earth and space</u> Recognise that the Moon orbits the Earth. Describe the movement of the Moon relative to the Earth. Explain that the changes in the appearance of the Moon over a period of 28 days arise from the Moon orbiting the Earth once every 28 days. use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. Recall that the Earth rotates on its' axis and this takes one day.</p>
<p><u>Forces</u> Describe and explain the motion of some familiar objects in terms of several forces acting on them. Identify forces on an object as either balanced or unbalanced. Use the terms 'balanced' and unbalanced' when describing several forces on an object. Explain that balanced forces on an object cause it to remain stationary or travel at the same speed. Explain that unbalanced forces on an object cause it to speed up, change shape or slow down. Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p>	<p><u>Forces</u> Identify the effects of air resistance and water resistance, that act between moving surfaces. Describe some of the factors that increase friction between solid surfaces and increase air and water resistance. Understand that air resistance is the frictional force of air on objects moving through it.</p>	<p><u>Forces</u> Identify the effects of friction, that act between moving surfaces. Describe situations in which frictional forces are helpful as well as those in which frictional forces are unhelpful. Explore the effects of levers, pulleys and gears. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. Describe how levers, pulleys and gears are used in everyday life (e.g. describe how having gears can make it easier to pedal a bike, how a bottle opener makes it easier to open a bottle lid).</p>