

# Science: Year 1 Overview

## Key Features

	PLANTS	ANIMALS (including Humans)	EVERYDAY MATERIALS	SEASONAL CHANGES
<b>YEAR 1</b>	<ul style="list-style-type: none"> <li>• Identification and labelling, including trees</li> <li>• Structure of plants, including roots, stem, flower, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Identification and labelling a variety of common animals (fish, amphibians, reptiles, birds and mammals)</li> <li>• Know carnivores, herbivores and omnivores</li> <li>• How to care for pets</li> <li>• Name parts of the human body</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and name a range of materials (wood, plastic, glass, metal, water and rock);</li> <li>• Classifying and grouping according to a range of physical properties</li> </ul>	<ul style="list-style-type: none"> <li>• Features of day and night including temperature</li> <li>• Weather, associated with seasons</li> </ul>
<b>Possible Learning Challenges</b>	<ul style="list-style-type: none"> <li>• Which birds and plants would Little Red Riding Hood find in our park?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Why are humans not like tigers?</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Which materials should the Three Little Pigs have used to build their house? or</b></li> <li>• <b>What do Aliens think of life on planet Earth?</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Why does it get dark earlier in winter? or</b></li> <li>• <b>How do the seasons impact on what we do?</b></li> </ul>

# Science: Year 2 Overview

Key Features				
<b>YEAR 2</b>	<b>PLANTS</b>	<b>LIVING THINGS and their HABITATS</b>	<b>ANIMALS (including Humans)</b>	<b>Uses of Everyday Materials</b>
	<ul style="list-style-type: none"> <li>• What plants and seeds need to grow</li> <li>• Growing from seeds and bulbs</li> </ul>	<ul style="list-style-type: none"> <li>• Habitats</li> <li>• Living and non living things</li> <li>• Early Food Chains</li> </ul>	<ul style="list-style-type: none"> <li>• Exercise and healthy living</li> <li>• What animals and humans need to survive</li> <li>• Animals have offspring, which grow to be adults</li> </ul>	<ul style="list-style-type: none"> <li>• Use of different everyday materials</li> <li>• Classifying and grouping</li> <li>• Changing materials by bending, etc.</li> </ul>
<b>Possible Learning Challenges</b>	<ul style="list-style-type: none"> <li>• How can we grow our own salad? or</li> <li>• How can you be the next master chef?</li> </ul>	<ul style="list-style-type: none"> <li>• Why would a dinosaur not make a good pet?</li> </ul>	<ul style="list-style-type: none"> <li>• How will 5 a day help me to be healthy? or</li> <li>• How could you be the next Jessica Ennis or Steven Gerrard ?</li> </ul>	<ul style="list-style-type: none"> <li>• What is our school made of? or</li> <li>• Which materials did they use to build the Trafford Centre?</li> </ul>

# Science: Year 3 Overview

	<b>ANIMALS (including Humans)</b>	<b>PLANTS</b>	<b>LIGHT</b>	<b>FORCES and MAGNETS</b>	<b>ROCKS</b>
<b>YEAR 3</b>	<ul style="list-style-type: none"> <li>• Nutrition, linked to what we eat</li> <li>• Skeletons and muscles</li> </ul>	<ul style="list-style-type: none"> <li>• Function of different parts of plants</li> <li>• What different plants need to flourish</li> <li>• Journey of water through a plant</li> <li>• Life cycle of a plant</li> </ul>	<ul style="list-style-type: none"> <li>• Sources, including the Sun</li> <li>• Protecting eyes from the Sun</li> <li>• Shadows</li> <li>• Reflection /mirrors</li> </ul>	<ul style="list-style-type: none"> <li>• How magnets attract/repel some materials</li> <li>• Magnetic poles</li> <li>• Friction</li> </ul>	<ul style="list-style-type: none"> <li>• How rocks are formed</li> <li>• Different kinds of rocks</li> <li>• Fossils</li> <li>• Soil</li> </ul>
<b>Possible Learning Challenges</b>	<ul style="list-style-type: none"> <li>• How can Usain Bolt move so quickly?</li> </ul>	<ul style="list-style-type: none"> <li>• How did that blossom become an apple?</li> </ul>	<ul style="list-style-type: none"> <li>• How far can you throw your shadow?</li> </ul>	<ul style="list-style-type: none"> <li>• Are you attractive enough?</li> </ul>	<ul style="list-style-type: none"> <li>• What do rocks tell us about the way the Earth was formed?</li> </ul>

# Science: Year 4 Overview

	ANIMALS, including Humans	LIVING THINGS and their Habitats	STATES OF MATTER	ELECTRICITY	SOUND
<b>YEAR 4</b>	<ul style="list-style-type: none"> <li>• Digestive System</li> <li>• Teeth</li> <li>• Food chains</li> <li>• Predators and prey</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and name a variety of living things (plants and animals) in the local and wider environment and group them</li> <li>• Recognise that environments can change and can pose dangers</li> </ul>	<ul style="list-style-type: none"> <li>• Solids, Liquids and Gases</li> <li>• Heating and cooling (no baking, etc.)</li> <li>• Evaporation and condensation</li> </ul>	<ul style="list-style-type: none"> <li>• Identify common appliances</li> <li>• Construct simple circuits including switches</li> <li>• Common conductors and insulators</li> <li>• Alternative sources of energy</li> </ul>	<ul style="list-style-type: none"> <li>• Sources</li> <li>• Vibration</li> <li>• Loud and faint</li> <li>• Pitch</li> <li>• Volume</li> <li>• Sound travelling</li> </ul>
<b>Possible Learning Challenges</b>	<ul style="list-style-type: none"> <li>• What happens to the food we eat?</li> </ul>	<ul style="list-style-type: none"> <li>• Which wild animals and plants thrive in your locality?</li> </ul>	<ul style="list-style-type: none"> <li>• How would we survive without water?</li> </ul>	<ul style="list-style-type: none"> <li>• How could we cope without electricity for one day?</li> </ul>	<ul style="list-style-type: none"> <li>• Why is the sound that 'One Direction' makes enjoyed by so many?</li> </ul>

# Science: Year 5 Overview

	Living things and their habitats	Animals, including humans	Properties & changes of materials	Earth and space	Forces
<b>YEAR 5</b>	<ul style="list-style-type: none"> <li>• Life cycles of plants and animals</li> <li>• Birth, growth, development and reproduction</li> </ul>	<ul style="list-style-type: none"> <li>• Changes as humans develop from birth to old age</li> </ul>	<ul style="list-style-type: none"> <li>• Dissolving</li> <li>• Evaporating</li> <li>• Filtering</li> <li>• Reversible and Irreversible changes</li> </ul>	<ul style="list-style-type: none"> <li>• Earth relative to the Sun</li> <li>• Moon relative to the Earth</li> <li>• Relationship between Sun, Earth and Moon</li> <li>• Earth's rotation</li> <li>• Day and night</li> </ul>	<ul style="list-style-type: none"> <li>• Gravity</li> <li>• Air Resistance</li> <li>• Water Resistance</li> <li>• Friction</li> <li>• Gears, Pulleys, Leavers and Springs</li> </ul>
<b>Possible Learning Challenges</b>	<ul style="list-style-type: none"> <li>• Do all animals and plants start life as an egg?</li> </ul>	<ul style="list-style-type: none"> <li>• How different will you be when you are as old as your grandparents?</li> </ul>	<ul style="list-style-type: none"> <li>• Could you be the next CSI investigator?</li> </ul>	<ul style="list-style-type: none"> <li>• Will we ever send another human to the moon?</li> </ul>	<ul style="list-style-type: none"> <li>• Can you feel the force?</li> </ul>

# Science: Year 6 Overview

	<b>LIVING THINGS and their Habitats</b>	<b>ANIMALS, including Humans</b>	<b>EVOLUTION and INHERITANCE</b>	<b>LIGHT</b>	<b>ELECTRICITY</b>
<b>YEAR 6</b>	<ul style="list-style-type: none"> <li>• Classification of living things</li> <li>• Vertebrates and invertebrates</li> <li>• Classifying reptiles, amphibians, mammals, insects, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Circulatory system</li> <li>• Heart, blood vessels</li> <li>• Diet, exercise and drugs</li> <li>• Transport of nutrients through the body</li> </ul>	<ul style="list-style-type: none"> <li>• Fossils tell us about the past</li> <li>• Off spring</li> <li>• Changes to the human skeleton over time</li> <li>• Darwin</li> </ul>	<ul style="list-style-type: none"> <li>• How light travels</li> <li>• The eye</li> <li>• Shadows</li> </ul>	<ul style="list-style-type: none"> <li>• Electrical circuits (series)</li> <li>• Designing traffic lights</li> </ul>
<b>Possible Learning Challenge</b>	<ul style="list-style-type: none"> <li>• <b>Could Spiderman really exist?</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>What would a journey through your body be like?</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Have we always looked like this?</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>How can you light up your life?</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Could you be the next Nintendo apprentice?</b></li> </ul>