



## National Curriculum Science Upper Key Stage 2

Science National Curriculum Objectives (UKS2)		Where are they taught?
<b>Pupils should be taught to...</b>		
<b>Living Things and Their Habitats</b>	describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	'I Have a Dream...'
	describe the life process of reproduction in some plants and animals	
	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	
	give reasons for classifying plants and animals based on specific characteristics	
<b>Animals, Including Humans</b>	describe the changes as humans develop to old age	Go With the Flow
	identify and name the main parts of the human circulatory system, and describe the function of the heart, blood vessels and blood	
	describe the ways in which nutrients and water are transported within animals, including humans	
	recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	Go With the Flow UKS2 3D PSHE C1 U1 L3 (additional lesson)

<b>Properties and</b>	compare and group together everyday materials on the basis of their properties,	Global Warning <i>Hot Off the Press (LKS2)</i>
-----------------------	---	---



<b>Changes of Materials</b>	including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets	
	know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution	
	use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating	
	give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic	
	demonstrate that dissolving, mixing and changes of state are reversible changes	
	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	
<b>Earth and Space</b>	describe the movement of the earth and other planets relative to the sun in the solar system	Mission Control
	describe the movement of the moon relative to the Earth	
	describe the Sun, Earth and Moon as approximately spherical bodies	
	use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky	
<b>Forces</b>	explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object	A World of Bright Ideas
	identify the effects of air resistance, water resistance and friction, that act between moving surfaces	
	recognise some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect	
	recognise that living things have changed over time and that fossils provide information	Rocky the Findosaur (LKS2)



<b>Evolution and Inheritance</b>	about living things that inhabited the Earth millions of years ago	
	recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	'I Have a Dream...'
	identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution	
<b>Light</b>	recognise that light appears to travel in straight lines	Wars of the World Clash of the Titans
	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	
	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	
	use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them	
<b>Electricity</b>	associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit	Full of Beans Too Hot to Handle
	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	
	use recognised symbols when representing a simple circuit in a diagram	