Upper Key Stage 2 Science Coverage Map

Key Stage 2 Science Programme of Study	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Living thing and their habitats Pupils should be taught to describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird		Cycle B Fantastic Beasts (Animals (				
Pupils should be taught to describe the life process of reproduction in some plants and animals.						Cycle A Moving on Up (Plants)
Animals, including humans Y5 Pupils should be taught to describe the changes as humans develop to old age.			Cycle B The Golden Age			
Forces Pupils should be taught to explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object				Cycle A Fight for the Crown		
Pupils should be taught to identify the effects of air resistance, water resistance and friction, that act between moving surfaces				Cycle A As Above		
Pupils should be taught to recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.				Cycle A Fight for the Crown		
Properties and changes of materials Pupils should be taught to 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	Cycle A Great Explorers	Cycle A Crime and Punishment				
Pupils should be taught to know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution	Cycle A Great Explorers	Cycle A Crime and Punishment				
Pupils should be taught to use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating	Cycle A Great Explorers	Cycle A Crime and Punishment				

Upper Key Stage 2 Science Coverage Map

Pupils should be taught to give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic	Cycle A Great Explorers	Cycle A Crime and Punishment				
Pupils should be taught to demonstrate that dissolving, mixing and changes of state are reversible changes	Cycle A Great Explorers	Cycle A Crime and Punishment				
Pupils should be taught to 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.	Cycle A Great Explorers	Cycle A Crime and Punishment				
Earth and space Pupils should be taught to describe the movement of the Earth, and other planets, relative to the Sun in the solar system			Cycle A How to save the Human Race			
Pupils should be taught to describe the movement of the Moon relative to the Earth			Cycle A As Above			
Pupils should be taught to describe the Sun, Earth and Moon as approximately spherical bodies			Cycle A As Above			
Pupils should be taught to use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.			Cycle A As Above			
Living things and their habitats Pupils should be taught to 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						Cycle A Moving on Up (Plants)
Pupils should be taught to give reasons for classifying plants and animals based on specific characteristics.		Cycle B Fantastic Beasts (Animals)				
Animals, including humans Y5 Pupils should be taught to identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood			Cycle B The Golden Age			
Pupils should be taught to recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function			Cycle B As Above			

Upper Key Stage 2 Science Coverage Map

Pupils should be taught to describe the ways in which nutrients and water are transported within animals, including humans.			Cycle B As Above			
Evolution and inheritance Pupils should be taught to recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago					Cycle A Fight for the Crown	
Pupils should be taught to recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents					Cycle A As Above	
Pupils should be taught to identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.					Cycle A As Above	
Electricity Pupils should be taught to associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit				Cycle B World War Two	Cycle B World War Two	
Pupils should be taught to 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				Cycle B As Above	Cycle B As Above	
Pupils should be taught to use recognised symbols when representing a simple circuit in a diagram.				Cycle B As Above	Cycle B As Above	
Light Pupils should be taught to recognise that light appears to travel in straight lines	Cycle B Clockwork					Cycle B Scientific Method, investigation skills and scientist study
Pupils should be taught to 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	Cycle B As Above					
Pupils should be taught to 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	Cycle B As Above					
Pupils should be taught to use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	Cycle B As Above					