# The Federation of Holy Trinity Church of England Schools
## Science Upper KS2 National Curriculum Coverage

| KS2 National Curriculum Objectives Pupils should be taught... | | ''That's All, Folks!' | 'Lightning Speed' | 'Mission Control' | 'A World of Bright Ideas' | 'Athens v Sparta' | 'Law and Order' | 'You're Not Invited' | 'Wars of the World' | 'Lindow Man' | 'Viking Warrior' | 'Fighting Footballer' | 'True Crime' | 'Rocky the Finosaur' | 'May the Force Be With You' | 'Go With The Flow' | 'In Your Element' | 'Out and About' | 'Saxon King' | 'Pharaoh Queen' | 'Time Team' | Under the Canopy' | 'Picture Our Planet' | 'Global Warning' | 'Full of Beans' | 'Come Fly With Me!' | 'Cry Freedom' | 'Come Fly With Me!' | 'I Have a Dream...' | PSHE Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Living Things and Their Habitats** | describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 microorganisms, plants and animals | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | give reasons for classifying plants and animals based on specific characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Animals, Including Humans** | describe the changes as humans develop to old age | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | identify and name the main parts of the human circulatory system, and describe the | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# The Federation of Holy Trinity Church of England Schools
## Science Upper KS2 National Curriculum Coverage

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Properties and Changes of Materials** | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# The Federation of Holy Trinity Church of England Schools
## Science Upper KS2 National Curriculum Coverage

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Earth and Space** | describe the movement of the earth and other planets relative to the sun in the solar system | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# The Federation of Holy Trinity Church of England Schools
## Science Upper KS2 National Curriculum Coverage

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Forces** | explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Evolution and Inheritance** | recognise that living things have changed over time and that fossils provide information 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# The Federation of Holy Trinity Church of England Schools
## Science Upper KS2 National Curriculum Coverage

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Light** | recognise that light appears to travel in straight lines | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Electricity** | associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |