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|  | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| YEAR SIX | **Light Physics**1) Recognise that light appears to travel in straight lines2) Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye3) Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes4) Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. 5) Use the idea of the Earth’s rotation to explain the apparent movement of the Sun across the sky.**Key vocabulary:**Straight lines, Light rays.(Y3 vocabulary - Light, Light source, Dark, Absence of light, Transparent, Translucent, Opaque, Shiny, Matt, Surface, Shadow, Reflect, Mirror, Sunlight, Dangerous)**Working scientifically** Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations | **Electricity Physics**1) Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function2) Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood3) Describe the ways in which nutrients and water are transported within animals, including humans.**Key vocabulary**Heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs and lifestyle**Working scientifically** Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.Ask simple questions and recognise that they can be answered in different ways | **Evolution and inheritance Biology**1) Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago2) Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents3) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.**Key vocabulary**Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils**Working scientifically** Identify scientific evidence that has been used to support or refute ideas or arguments.Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. | **Evolution and inheritance Biology**1) Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago2) Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents3) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.**Key vocabulary**Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils**Working scientifically** Identify scientific evidence that has been used to support or refute ideas or arguments.Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. | **Animals including humans Biology**1) Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function2) Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood3) Describe the ways in which nutrients and water are transported within animals, including humans.**Key vocabulary**Heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs and lifestyle**Working scientifically** Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Use test results to make predictions to set up further comparative and fair tests. Identify scientific evidence that has been used to support or refute ideas or arguments. | **Living things and their habitats Biology**1) Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals2) Give reasons for classifying plants and animals based on specific characteristics.Key vocabulary:Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering and non-flowering. **Working scientifically** Identify scientific evidence that has been used to support or refute ideas or arguments. |

**Working scientifically UKS2**

1) Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.

2) Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.

3) Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

4) Use test results to make predictions to set up further comparative and fair tests.

5) Report & present findings from enquiries, inc conclusions, causal relationships & explanations of & degree of trust in results, in oral & written forms such as displays & other presentations.

6) Identify scientific evidence that has been used to support or refute ideas or arguments.