|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| YEAR FIVE | **Space Physics**1) Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.2) Describe the movement of the Moon relative to the Earth.3) Describe the Sun, Earth and Moon as approximately spherical bodies.4) Use the idea of the Earth’s rotation to explain day and night.5) Use the idea of the Earth’s rotation to explain the apparent movement of the Sun across the sky.**Key vocabulary**Earth, Sun, Moon, Mercury, Jupiter, Saturn, Venus, Mars, Uranus, NeptuneSpherical, Solar system, rotates, star, orbits, planets, axis**Working scientifically** Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.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.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.Identify scientific evidence that has been used to support or refute ideas or arguments. | **Forces Physics**1) Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.2) Identify the effects of air resistance and water resistance that act between moving surfaces. 3) Identify the effects of friction, that act between moving surfaces.4) Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. **Key vocabulary**Force, gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears**Working scientifically** Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.Use test results to make predictions to set up further comparative and fair tests. 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. | **Properties and changes of materials Chemistry** 1) 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.2) Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.3) Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. 4) Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.5) Demonstrate that dissolving, mixing and changes of state are reversible changes.6) Explain that some changes result in the formation of new materials, & that this kind of change is not usually reversible, inc changes associated with burning & the action of acid on bicarbonate of soda.**Key vocabulary**Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve reversible/non-reversible change, burning, rusting, new material.**Working scientifically**Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.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.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.Identify scientific evidence that has been used to support or refute ideas or arguments. | **Animals including humans Biology**1) Describe the changes as humans develop to old age.**Key vocabulary**Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings **Working scientifically** Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.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.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.Identify scientific evidence that has been used to support or refute ideas or arguments. | **Living things and their habitats Biology**1) Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. 2) Describe the life process of reproduction in some plants and animals.**Key vocabulary**Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings **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. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. 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.Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Identify scientific evidence that has been used to support or refute ideas or arguments. | **Properties and changes of materials Chemistry** 1) 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.2) Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.3) Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. 4) Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.5) Demonstrate that dissolving, mixing and changes of state are reversible changes.6) Explain that some changes result in the formation of new materials, & that this kind of change is not usually reversible, inc changes associated with burning & the action of acid on bicarbonate of soda.**Key vocabulary**Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve reversible/non-reversible change, burning, rusting, new material.**Working scientifically**Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.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.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.Identify scientific evidence that has been used to support or refute ideas or arguments. |