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| **Topic** | **EYFS** | | **Y1** | | **Y2** | | **Y3** | | **Y4** | | **Y5** | | **Y6** | |
| **Working Scientifically:**  **KS1**  Ask simple Qs and recognise that they can be answered in different ways. Perform simple tests. Observe closely, using simple equipment. Gather and record data to help in answering questions. Identify and classify. Use their observations and use appropriate scientific language to communicate ideas. Use their observations and ideas to suggest answers to questions.  **Lower KS2**  Ask relevant questions and use different types of scientific enquiries to answer them. Set up simple practical enquiries, comparative and fair tests. Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Identify differences, similarities or changes related to simple scientific ideas and processes. Use results to draw simple conclusions, make predictions for new values, suggest improvements, and raise further questions. Use straightforward scientific evidence to answer questions  **Upper KS2**  Plan different types of scientific enquiries to answer their own questions, including recognising and controlling variables where necessary. Use test results to make predictions to set up further comparative and fair tests. 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 and causal relationships, in oral and written forms such as displays and other presentations, using appropriate scientific language. Explain degree of trust in results. Identify and evaluate scientific evidence (their own and others) that has been used to support or refute ideas or arguments. | | | | | | | | | | | | | | |
| Topic | | EYFS | | Year 1 | | Year 2 | | Year 3 | | Year 4 | | Year 5 | | Year 6 |
| Plants | |  | | Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees  Identify and describe the basic structure of a variety of common flowering plants, including trees | | Observe and describe how  seeds grow into healthy plants  and investigate requirements  for plant growth. | | Identify and describe the  functions of parts of a  flowering plant.  Explore pollination, seed  formation and seed dispersal. | |  | | . | |  |
| Seasonal Changes | | Observe changes across the four seasons, including weather and how day length varies. | | | |  | |  | |  | |  | |  |
| Everyday Materials | |  | | Name, describe, compare, sort and group a range of materials based on their simple physical properties. | | Identify and compare the  suitability of different materials  for particular uses and  investigate how some solids can  change shape by squashing, bending, twisting and stretching. | |  | | Compare and group materials together, according to whether they are solids, liquids or gases  Observes that some materials change state when they are heated or cooled, and measure or research the temperature degrees Celsius (°C)  Link to water cycle. | | Compare and group  materials by their  properties.  Investigate how some  materials can dissolve, mix,  separate.  Understand that some  changes are reversible. | |  |
| Living things and their habitats | |  | |  | | Identify and describe  (including naming of  plants and animals)  habitats and explore how  they meet the needs and  requirements of different  animals.  Describe simple food  chains.  Can compare the differences between things that are living, dead, and things that have never been alive. | |  | | Classify (using  classification keys) and  group animals by  different properties.  Recognise changes in  environments and he  dangers this can pose to  living things. | | Describe and observe  differences in a range  of life cycles.  Describe the life  process of  reproduction. | | Describe and classify a  broad range of living  things using common  observable  characteristics and give  reasons for choices  made. |
| Light and Dark | |  | |  | |  | | Explore light and how it allows us to see.  Recognise that UV light can be  dangerous and describe ways to  protects ourselves from it.  Investigate and explore shadows. | |  | |  | | Recognise that light travels in straight  lines. Explore in detail how light  travelling in a straight line links to vision  and why shadows are the same shape as  the objects that cast them. |
| Animals Including humans | |  | | Identify and  classify a variety of common animals.  Describe and compare the  structures of  different animals  and label  (including labelling  basic parts of the  human body). | | Observe that  animals have  offspring that grow  into adults.  Investigate the  basic needs of  animals for survival  as well as the need  for exercise and  hygiene. | | Identify that  animals need the  right  types/amounts of  nutrition.  Identify and  explore skeletons  and muscles. | | Explore the simple  function of the  digestive system in  humans.  Construct and  interpret a variety  of food chains. | | Describe how  humans change  and develop to old  age. | | Identify and name  the main parts of  the circulatory  system.  Describe how  nutrients and water  are transported  around the body.  Recognise the  impact of diet,  exercise and drugs  on the human body. |
| Forces and Magnets | |  | |  | |  | | Compare movement of different  surfaces.  Investigate the requirements for forces  (including magnetism).  Explore investigate the properties and  uses of magnets. | |  | | Explore and describe the effects of  gravity, air resistance, water resistance  and friction.  Recognise that some mechanisms can  allow smaller forces to have a greater  effect. | |  |
| Rocks | |  | |  | |  | | Compare and group together rocks based on physical properties.  Describe the formation of fossils.  Explore soils. | |  | |  | |  |
| States of Matter | |  | |  | |  | |  | |  | |  | |  |
| Properties and Changes of Materials | |  | |  | |  | |  | |  | |  | |  |
| Earth and Space | |  | |  | |  | |  | |  | | Describe the movement of the Earth and other planets around the Sun.  Describe the movement of the Moon around the Earth.  Understand that the Earth’s rotation causes day and night. | |  |
| Sound | |  | |  | |  | |  | | Identify how sounds are made including, vibrations from sound travel  through a medium to the ear.  Explore pitch and volume. | |  | |  |
| Electricity | |  | |  | |  | |  | | Identify common appliances that run on  electricity.  Construct simple circuits and investigate common conductors and insulators. | |  | | Associate the brightness of a lamp  with voltage and give reasons for  this.  Use recognised symbols to draw  simple circuit diagrams. |
| 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. |