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| **Science** | | **Cycle A** |
|  |  | **Milestone 2** |
| **To work scientifically** |  | • Ask relevant questions.  • Set up simple practical enquiries and comparative and fair tests.  • Make accurate measurements using standard units, using a range of equipment, e.g. 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, bar charts and tables.  • Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.  • Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests.  • Identify differences, similarities or changes related to simple, scientific ideas and processes.  • Use straightforward, scientific evidence to answer questions or to support their findings. |
| **Biology** | **To understand plants** | • Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers.  • Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.  • Investigate the way in which water is transported within plants.  • Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. |
|  | **To understand animals and humans** | • Identify that animals, including humans, need the right types and amounts of nutrition, that they cannot make their own food and they get nutrition from what they eat.  • Describe the ways in which nutrients and water are transported within animals, including humans.  • Describe the simple functions of the basic parts of the digestive system in humans.  • Identify the different types of teeth in humans and their simple functions. |
|  | **To investigate living things** |  |
|  | **To understand evolution and inheritance** |  |
| **Chemistry** | **To investigate materials** | • Compare and group together different kinds of rocks on the basis of their simple, physical properties.  • Relate the simple physical properties of some rocks to their formation (igneous or sedimentary).  • Describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock. |
| **Physics** | **To understand movement, forces and magnets** | • Observe how magnets attract or repel each other and attract some materials and not others.  • Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet and identify some magnetic materials. |
|  | **To understand light and seeing** |  |
|  | **To investigate sound and hearing** |  |
|  | **To understand electrical circuits** |  |
|  | **To understand the Earth’s movement in space** | • Describe the movement of the Earth relative to the Sun in the solar system.  • Describe the movement of the Moon relative to the Earth. |

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| **Science** | | **Cycle B** |
|  |  | **Milestone 2** |
| **To work scientifically** |  | • Ask relevant questions.  • Set up simple practical enquiries and comparative and fair tests.  • Make accurate measurements using standard units, using a range of equipment, e.g. 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, bar charts and tables.  • Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.  • Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests.  • Identify differences, similarities or changes related to simple, scientific ideas and processes.  • Use straightforward, scientific evidence to answer questions or to support their findings. |
| **Biology** | **To understand plants** |  |
|  | **To understand animals and humans** | • Identify that humans and some animals have skeletons and muscles for support, protection and movement. |
|  | **To investigate living things** | • Identify and name a variety of living things (plants and animals) in the local and wider environment, using classification keys to assign them to groups.  • Give reasons for classifying plants and animals based on specific characteristics.  • Recognise that environments are constantly changing and that this can sometimes pose dangers to specific habitats. |
|  | **To understand evolution and inheritance** | • Identify how plants and animals, including humans, resemble their parents in many features.  • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.  • Identify how animals and plants are suited to and adapt to their environment in different ways. |
| **Chemistry** | **To investigate materials** | • Compare and group materials together, according to whether they are solids, liquids or gases.  • Observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics.  • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. |
| **Physics** | **To understand movement, forces and magnets** |  |
|  | **To understand light and seeing** |  |
|  | **To investigate sound and hearing** | • Identify how sounds are made, associating some of them with something vibrating.  • Recognise that sounds get fainter as the distance from the sound’s source increases. |
|  | **To understand electrical circuits** |  |
|  | **To understand the Earth’s movement in space** |  |