Our Scientific Adventure

Science End Points

Year 1

	End point:
Working Scientifically	➢ I can ask simple questions and make predictions. ➢ I can observe closely and gather and record data to help answer questions. ➢ I can use my observations and ideas to suggest answers to questions and use secondary sources to find answers.
Topic specific	➢ I can identify and name a variety of common animals that are carnivores, herbivores and omnivores. ➢ I can identify and describe the basic structure of a variety of common flowering plants, including trees. ➢ I can observe changes across the four seasons. ➢ I can identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. ➢ I can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each.

Year 2

	End point:
Working Scientifically	➢ I can ask simple questions and make predictions. ➢ I can observe closely and gather and record data to help answer questions. ➢ I can use my observations and ideas to suggest answers to questions and use secondary sources to find answers.
Topic specific	➢ I can explore and compare the differences between things that are living, dead, and things that have never been alive and how animals get their food from plants using a simple food chain. ➢ I can identify and compare the suitability of a variety of everyday materials, including metal, glass, wood and plastic. ➢ I can describe how a seed or bulb grows into a plant, the basic needs of animals, incl. humans, for survival and understand that animals have offspring which grow into adults.

Year 3

	End point:
Working Scientifically	➢ I can find patterns in the way that the size of shadows change. ➢ I can ask relevant questions and use different types of scientific enquiry to answer them; using my scientific knowledge to support my predictions. ➢ I can set up simple practical enquiries, comparative and fair tests and make systematic and careful observations and measurements with a range of equipment. ➢ I can gather, record, classify and present data in a variety of ways and report on my findings using straightforward scientific evidence, suggesting improvements and raising further questions
Topic specific	➢ I can identify the part played by evaporation and condensation in the water cycle. ➢ I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers, then identify whether a circuit will allow a bulb, switch or buzzer to work. ➢ I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Year 4

	End point:
Working Scientifically	➢ I can ask relevant questions and use different types of scientific enquiry to answer them; using my scientific knowledge to support my predictions. ➢ I can set up simple practical enquiries, comparative and fair tests and make systematic and careful observations and measurements with a range of equipment. ➢ I can gather, record, classify and present data in a variety of ways and report on my findings using straightforward scientific evidence, suggesting improvements and raising further questions.
Topic specific	➢ I can compare and group rocks by physical features and understand that soils are made from rocks and organic matters. ➢ I can explain that sound is made from vibrations and how vibrations effect pitch and volume. ➢ I can describe the function of human teeth and the digestive system and can explain their function. ➢ I can describe what a food chain is and can identify producers, predators and prey. ➢ I can explain what magnetism is and the impact it has on objects.

Year 5

	End point:
Working Scientifically	➢ I can plan different types of scientific enquiries to answer questions and control variables, making predictions that are supported by scientific evidence. ➢ I can take measurements using a range of scientific equipment with increasing accuracy and precision, taking repeat readings where necessary, and record data and results of increasing complexity. ➢ I can report and present my findings; comment on degrees of trust in my results and identify evidence that has been used to support or refute ideas or arguments.
Topic specific	➢ I can describe the changes humans go through as they develop to old age, including infancy, childhood, adolescence and puberty and adulthood. ➢ I can describe the movement of the Earth and Moon relative to the Sun and Earth respectively and explain the pattern of day and night caused by the Earth's rotation. ➢ I can describe how making changes to circuit affects the components in the circuit, e.g. brightness of bulbs and loudness of buzzers ➢ I can describe how mixtures are able to be separated, e.g. filtering, sieving and evaporating and how some changes made are reversible or irreversible. ➢ I can describe the life process of reproduction and life cycles of some plants and animals including mammals, amphibians, insects and birds. ➢ I can describe that light travels in straight lines from a light source and how this allows us to see; I can explain why shadows have the same shape as the objects that cast them.

Year 6

	End point:
Working Scientifically	➢ I can plan different types of scientific enquiries to answer questions and control variables, making predictions that are supported by scientific evidence. ➢ I can take measurements using a range of scientific equipment with increasing accuracy and precision, taking repeat readings where necessary, and record data and results of increasing complexity. ➢ I can report and present my findings; comment on degrees of trust in my results and identify evidence that has been used to support or refute ideas or arguments.
Topic specific	➢ I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. ➢ I can describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. ➢ I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. ➢ I can identify the effects of air resistance, water resistance and friction that acts between moving surfaces.