CURRICULUM END POINTS

SCIENCE

Year Group	End points
1	A successful scientist in Year 1 can: • Identify and name a variety of common animals and categorise using terms such as (fish, amphibians, reptiles, birds, mammals, carnivores, herbivores and omnivores) • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense • Distinguish between an object and the material from which it is made • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock • Describe and compare a variety of everyday materials based on their simple physical properties • 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 changes across the four seasons including describing the weather associated and how day length varies • Carry out investigations planning and using equipment, making predictions and drawing simple conclusions
2	A successful scientist in Year 2 can: • Explain how habitats (including micro-habitats) provide the elements that living things need to survive and can explain how they obtain food through the use of food chains • Identify the basic needs of animals including humans, that they have offspring and why exercise is an important element of a healthy lifestyle • Identify and compare the suitability of a variety of everyday materials for a specified use and how these materials can also be manipulated in different ways • Observe the growth of a variety of seeds and bulbs, discussing what plants need in order to grow and stay health • Carry out a simple experiment, make observations and use these to answer a range of simple questions whilst also presenting their data
3	A successful scientist in Year 3 can: • Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties • Describe in simple terms how fossils are formed when things that have lived are trapped within rock • Recognise that soils are made from rocks and organic matter • Recognise that they need light in order to see things and that dark is the absence of light • Notice that light is reflected from surfaces • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes • Recognise that shadows are formed when the light from a light source is blocked by a solid object • Find patterns in the way that the size of shadows change • With prompts carry out a simple scientific experiment, explaining what a fair test is and using scientific equipment accurately • Collect and record their findings on a simple bar chart, making observations from these results
4	A successful scientist in Year 4 can: • 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 • Construct and interpret a variety of food chains, identifying producers, predators and prey • 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 or research the temperature at which this happens in degrees Celsius (°C) • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • Recognise that environments can change and that this can sometimes pose dangers to living things • Identify how sounds are made, associating some of them with something vibrating • Recognise that vibrations from sounds travel through a medium to the ear • Find patterns between the pitch and volume of a sound and features of the object that produced it • Recognise that sounds get fainter as the distance from the sound source increases • Identify common appliances that run on electricity • Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery • Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit • Recognise some common conductors and insulators, and associate metals with being good conductors. • Plan a fair test and conduct the experiment using a data logger • Record data from an experiment using a data logger, record their findings on a bar chart and/or line graph and answer questions about their results
5	A successful scientist in Year 5 can: • Describe the movement of the Earth, the moon and other planets in the solar system • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky • Understand the force of gravity acting between the earth and falling objects • Identify the effects of air resistance, water resistance and friction • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect • Compare and group together everyday materials on the basis of their properties to demonstrate an understanding of dissolving, mixing and changes of state, reversible and irreversible • Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • Describe the life process of reproduction in some plants and animals • Describe the changes as humans develop to old age • Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
6	A successful scientist in Year 6 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 • Identify and name the main parts of the human circulatory system • Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye; why shadows have the same shape as the objects that cast them • Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches • Recognise that living things' offspring vary and are not identical to their parents; how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution • Plan different types of scientific enquiries, controlling variables where necessary • Take measurements, using a range of scientific equipment, taking repeat readings when appropriate • Record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • Use test results to make predictions to set up further tests • Present findings from enquiries, including conclusions • Identify scientific evidence that has been used to support or refute ideas or arguments