

Science – Year 3 & 4 - Target Memories



2025 – 2026 2027 - 2028						
Working scientifically: - asking relevant questions and using different types of scientific enquiries to answer them - setting up simple practical enquiries, comparative and fair tests - making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers - gathering, recording, classifying and presenting data in a variety of ways to help in answering questions - recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables - reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions - using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions - identifying differences, similarities or changes related to simple scientific ideas and processes - using straightforward scientific evidence to answer questions or to support their findings.						
	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
National Curriculum coverage	3: Rocks: Pupils should be taught to: 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.	4: Sound Pupils should be taught to: - 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 of a sound and features of the object that produced it. - find patterns between the volume of a sound and the strength of the vibrations that produced it. - recognise that sounds get fainter as the distance from the sound source increases.	3: Animals, including humans: Pupils should be taught to: identify that humans and some other animals have skeletons and muscles for support, protection and movement.	4: Animals, including humans: Pupils should be taught to: 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.	3: Animals, including humans: Pupils should be taught to: identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.	4: Animals, including humans: Pupils should be taught to: construct and interpret a variety of food chains, identifying producers, predators and prey.
Target Memories Year 3 & 4	<u>What makes rocks different and why do we need soil?</u> Rocks can be compared and grouped based on their appearance and physical properties. Different types of rock are formed in different ways. Fossils are formed from different plants and animals. Fossils can be formed in different ways. Soils are made from rock particles and organic matter, and that different soils have different properties.	<u>How is sound made and how does it travel?</u> Sounds are made by an object vibrating. Sound travels through a medium to the ear. The pitch of a sound is related to how fast an object vibrates. The volume of a sound is related to the strength of the vibrations. Sounds get fainter as the distance from the source increases.	<u>How do our bones and muscles help us move?</u> Skeletons provide support and protection, Skeletons help animals (including humans) to move. Muscles work in pairs and pull on bones to cause movement. There are different types of skeletons in humans and other animals (for example, internal, external, or no skeleton).	<u>What journey does food take inside our bodies?</u> There are a number of organs involved in the human digestive system. Each organ has their own function. There are 4 different types of human teeth (incisors, canines, premolars, and molars). Each type of tooth has their own, individual functions.	<u>Why do we need different foods to stay healthy?</u> Plants make their own food. Animals, including humans, need to eat to stay alive and healthy. There are five different food groups. Foods provide different nutrients for our bodies. Nutrients help to keep us healthy in different ways.	<u>What connects living things in food chains?</u> There are producers and consumers in a food chain. There are predators and prey in a food chain. Animals can be predators and prey. A change in one part of a food chain can have an effect on other parts of the food chain. Food chains are usually drawn with an arrow in between each living thing.

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2026 - 2027

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National Curriculum coverage	3: Light: Pupils should be taught to: 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 an opaque object. find patterns in the way that the size of shadows change.	4: Electricity: Pupils should be taught to: • 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.	4: States of matter: Pupils should be taught to: 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.	3: Forces and magnets: Pupils should be taught to: • compare how things move on different surfaces • notice that some forces need contact between two objects, but magnetic forces can act at a distance • 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 • describe magnets as having two poles • predict whether two magnets will attract or repel each other, depending on which poles are facing.	3: Plants: Pupils should be taught to: identify and describe the functions of different parts of flowering plants: roots, stem/trunk, 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 part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	4: Living things and their habitats: Pupils should be taught to: recognise that living things can be grouped in a variety of ways 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.
Target Memories Year 3 & 4	<u>How does light help us see and make shadows?</u> We need light to see things and that darkness is the absence of light. Light reflects off surfaces and that some surfaces reflect more light than others. The words transparent, translucent and opaque are used to describe how much light passes through an object. The light from the sun can be dangerous and we need to protect our eyes from it. Shadows are formed when an object blocks light. The size and shape of a shadow depends on the position of the light source.	<u>How can we make a circuit work?</u> Name and describe key parts of a circuit, including cells, wires, bulbs, and switches. A complete series circuit is needed to allow an electrical appliance to work. Some materials conduct electricity (conductors) and some do not (insulators). A switch can control the flow of electricity in a circuit.	<u>How can materials change state?</u> Materials can exist as solids, liquids, or gases, and can be grouped according to their properties. Heating or cooling can change materials from one state to another (melting, freezing, evaporation, and condensation). Evaporation is the process of a liquid turning into a gas, and condensation is the process of a gas turning into a liquid. The main stages of the water cycle are evaporation, condensation, precipitation, and collection.	<u>How do forces make things move and stick?</u> Objects move differently on different surfaces due to friction. Magnets attract some materials and not others. Magnets can repel or attract other magnets. Magnets have two poles, called north and south, and that like poles repel while opposite poles attract. Magnetic forces can act without objects touching.	<u>How do plants survive and grow?</u> Roots, stems, leaves, and flowers are the main parts of a plant and they each have their own function. Plants need light, water, and suitable temperatures to grow and stay healthy. Water is transported from the roots of a plant to the leaves. Flowers are important for pollination, seed formation, and seed dispersal. Know the life cycle of a flowering plant.	<u>How do living things depend on their environment?</u> Living things can be grouped in different ways based on their characteristics. Classification keys can identify and name living things in different environments. Animals and plants are adapted to live in specific habitats. Changes in the environment, such as habitat loss or pollution, can be dangerous for living things.

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