Year 4 Progressions of Skills- Science

2025/26	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Enrichment opportunities						
Science	Animals including humans - digestion	Electricity and circuits	States of Matter	Sounds and vibrations	Classification and changing	Making connections
Knowledge						
	To know the main organs of the human digestive system (mouth, teeth, tongue, oesophagus, stomach, small and large intestines) and describe their simple functions. To know the different types of human teeth (incisor, canine, premolar and molar) and their simple function	To know that all electrical appliances need a power source, including batteries or mains electricity. To know that an electrical circuit needs a complete path for the electrical charge to flow through To know the main components in a simple series circuit.	To know that all substances around us can exist as solids, liquids and gases. To know that a property of a solid is that it keeps its shape unless a force is applied to it. To know that a property of a liquid can flow freely and take on the shape of a container.	To understand that sound is a result of vibrations To know that vibrations from sounds travel through mediums to the ear. To know that an insulating material reduces the amount of vibrations that pass through it and this can be used to protect the ears from damaging sounds.	To know that living things can be grouped in different ways. To know that a classification key can be used to group and identify plants and animals. To know that vertebrates are animals which have a backbone and invertebrates are animals which do not have a backbone.	To revise the units *States of matter* and *Classification and changing habitats.* To revise the unit electricity and circuits To revise the unit states of matter and sound and vibrations To revise the unit digestions and food. To revise the unit states of matter.

	To know that teeth can be damaged, including the effect of sugary and acidic food. To know that it is important to brush teeth twice a day, make good food choices and visit the dentist regularly. To describe the teeth of carnivores and herbivores, and understand why they are different. To know that predators hunt for their food and prey are the animals being hunted. To know that producers make their own food. To know that food chains begin with a	To know the precautions for working safely with electricity. To know that some materials allow electrical charge to pass through them quickly and these are known as electrical conductors (e.g. metals). To know that some materials do not allow electrical charge to pass through them easily and these are known as electrical insulators (e.g wood and plastic). To know that metals are used for cables and wires because they are good conductors of electricity. To know that plastic is	To know that a property of a gas does not have a fixed shape and can escape from an unsealed container. To know that heating causes solids to turn into liquids (melting) and liquids to turn into gases (evaporating). To know that cooling causes gases to turn into liquids (condensing) and liquids to turn into solids (freezing). To know that water can exist as a solid, a liquid or a gas. To know that the melting point of water is zero degrees Celsius and the boiling point of water is 100 degrees Celsius.	To know that different materials provide different amounts of insulation against sound. To know a variety of ways to change the pitch or volume of a sound. To know that quicker vibrations cause higher-pitched sounds and slower vibrations cause lower-pitched sounds. To know that stronger vibrations cause louder sounds and weaker vibrations cause quieter sounds . To know that sounds get fainter as the distance from the sound source increases.	To know that plants can be grouped into flowering or non-flowering varieties. To know that flowering plants include grasses and non-flowering plants include ferns and mosses. To know that there are five main vertebrate groups: birds, mammals, reptiles, amphibians and fish. To know that invertebrate groups include snails, slugs, worms, spiders and insects. To know that habitats can change throughout the year and this can be dangerous for living things.	

	producer followed by consumers, and arrows to show the energy passed on.	used to cover cables and wires because it is a good insulator. To understand that an open switch breaks a series circuit so the components will be off. To understand that a closed switch completes a series circuit so the components will be on. To understand the relationship between bulb brightness and the number of bulbs in a circuit.	To know that water flows around the world in a continuous process called the water cycle. To know that in the water cycle, evaporation is when bodies of water are heated and turn into water vapour. To know that in the water cycle, condensation is the process of water vapour cooling to form water droplets in clouds, which can result in precipitation. To know that the rate of evaporation increases as temperature rises.		To know that humans can have both a positive and negative impact on the environment.	

Working scientifically						
	To evaluate a model. To describe real observation methods and evidence collected. To plan an enquiry by considering which variables should be changed, measured and controlled. To group animals based on their diet. To analyse patterns and form conclusions using scientific knowledge. To construct a results table for recording observations.	To record and classify qualitative data. To draw a scientific diagram. To write a method. To pose questions and plan ways to test them. To explore how scientific advances inform safety advice.	To ask relevant questions about the properties of solids. To use results to draw simple conclusions about the properties of liquids. To use thermometers to take accurate measurements before and after melting. To make predictions for new values about evaporation rates. To record the stages of the water cycle using a labelled diagram. To research climate change and the water	To observe closely how different instruments create a sound. To research how whales and dolphins communicate underwater. To present results using a bar chart. To suggest which variables to measure and for how long. To design simple results tables. To identify when results or observations do not match predictions.	To record data in different ways. To apply and create classification keys. To make and use classification keys. To gather, record, classify and present data. To research using an information sheet.	To plan a comparative test. To gather and record data. To conclude and evaluate the investigation To observe carefully and apply these observations to problem solve.. To report on my findings.

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