St Cuthbert's Whole School Science Curriculum

2022-2023

EYFS

Subject	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic focus	Explore the natural world. Harvest and Growing Close observations of seasonal changes.		New Growth, new life Changing states of matter Materials Growing & changing		Growing & changing (cont) Contrasting environments	
Understanding the World	**Understanding the World: Nursery** Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Begin to make sense of their own life-story and family's history. Explore how things work. Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all living things. Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice. **Understanding the World: Reception** Explore the natural world around them. Describe what they see, hear and feel while they are outside. Recognise some environments that are different to the one in which they live. Understand the effect of changing seasons on the natural world around them. **Reception: End points** Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments,drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.					

Key Stage 1						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic focus	**Animals including Humans** -Identify and name lots of common animals including fish, amphibians, reptiles, birds and mammals. -Identify and name lots of common animals that are carnivores, herbivores and omnivores. -Describe and compare lots of common animals (fish, amphibians, reptiles, birds and mammals, including pets) by how they look and how they move. -Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.		**Everyday materials** -Understand the difference between an object and the material from which it is made. -Identify and name lots of everyday materials, including wood, plastic, glass, metal, water, and rock. -Describe the simple physical properties of a variety of everyday materials. -Compare and group together a variety of everyday materials on the basis of their simple physical properties.	**Seasonal change** -Observe changes across the four seasons. -Observe and describe the weather within the seasons and how the length of the days changes.	**Plants** -Identify and name a variety of common plants, including garden plants, wild plants and trees, and those classified as deciduous and evergreen. -Describe the basic structure of a variety of common plants including roots, stem, leaves and flowers.	
Working Scientifically	During years 1 and 2, pupils are taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions					

Key Stage 2						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic focus	**Rocks** -Compare and group	**Electricity** -Identify common	**Animals including humans**	**Sound** - Identify how	**States of Matter** - Compare and group materials	

	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.	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.	(Diet and Skeleton) -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. -Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	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.	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.
Working Scientifically	During years 3 and 4, pupils are taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • 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.