



	Y3/4 Cycle One	Y3/4 Cycle Two	Y5/6 Cycle One	Y5/6 Cycle Two
AUTUMN TERM	Scientific Enquiry – (See Science lead) The 6 scientific enquiries: - Comparative / fair testing - Research - Observation over time - Pattern Seeking - Identifying, grouping & classifying	Scientific Enquiry – (See Science lead) The 6 scientific enquiries: - Comparative / fair testing - Research - Observation over time - Pattern Seeking - Identifying, grouping & classifying	Animals including Humans – Developing Experts Y5 - Know the key stages of a mammals' life cycle - Know that different animals grow at different rates - Know what changes occur during puberty	Animals including humans – Developing Experts Y6 - Know the role of the heart in the circulatory system - Know that oxygen is breathed into the lungs and absorbed by blood cells - Know how oxygen is transported around the body - Understand why exercise/diet affects your heart rate
	Animal including Humans – Developing Experts Yr4 - Place the stages of the digestive system in order - Name the human teeth & their jobs - Know what a food chain is - Know what a food web is	Animal including Humans – Developing Experts Yr3 - Know the 5 key food groups - Know what is required for a healthy diet - Know the bones & their function in the human skeleton (skull/vertebrae/ribs/humorous/ulna/radius/Femur/Fibula/Tibia) - Know the difference between voluntary and involuntary muscles	Forces – Developing Experts Y5 - Know the work of Isaac Newton - Know the effects of air and water resistance - Know the effect of friction - Understand that gears, levers and pulleys can be used to reduce the force needed to move an object	Evolution & Inheritance– Developing Experts Y6 - Explain what adaptation is - Describe the process of natural selection - Understand inheritance - Explain what genetic modification is
SPRING TERM	Electricity - Developing Experts Yr 4 - Know which items require electricity (mains/battery) - Know that electricity flows around a circuit - Know how switches can be used to break circuits - Know that some materials allow electricity to flow through them	Light– Developing Experts Yr 3 - Know the difference between natural and unnatural sources of light - Know the properties of a reflective material - Explain how shadows are formed	Earth & Space – Developing Experts Y5 - Know the work of Nicolas Copernicus - Explain the movement of small/large objects in space (orbits) - Know that objects with larger mass have larger gravitational pulls - Know that objects like planets, suns and moons spin (day/night)	Looking after our environment– Developing Experts Y6 - Know that carbon emissions trap heat inside the atmosphere - Know the difference between climate and weather - Know the effects of climate change - Know what renewable energy is - Understand that individuals must take responsibility
	States of Matter - Developing Experts Yr 4 - Know how particles behave in solids, liquids & gases - Know what melting & freezing point means - Know what happens during evaporating and condensing - Explain the stages of the water cycle	Forces & Magnets– Developing Experts Yr 3 - Know the different types of forces - Know that magnets have poles and that opposites attract - Know that some materials are magnetic - Know that magnetic forces can act at a distance	Changes of materials – Developing Experts Y5 - Know what a reversible change is - Know what an irreversible change is (chemical) - Know how to identify how a change has occurred	Light– Developing Experts Y6 - Know that light travels in a straight line - Know that light reflects off all objects (unless they are black) - Know that we can see because light travels into our eye
SUMMER TERM	Sound - Developing Experts Yr 4 - Sound is created by vibrations - Sound travels in all direction in waves via a medium - Bigger vibrations makes louder sounds and smaller vibrations make smaller sounds - Sound/waves can be blocked (insulation)	Plants – Developing Experts Yr 3 - Know the parts of the plant used for photosynthesis - Explain photosynthesis - Know the reproductive parts of a plant - Explain the reproductive process (pollinators/seed dispersal)	Properties of materials – Developing Experts Y5 - Know what a conductor and insulator is - Know that some substances are soluble - Know the varies ways of separating mixtures (sieving, filtering, evaporating, magnets) - Know how to demonstrate reversible changes	Electricity–Developing Experts Y6 - Know that batteries are a store of energy that can run out. - Know the symbols used in an electrical circuit - Know that a higher voltage makes components work harder in a circuit - Know what complete and broken circuits look like in diagrams
	Living Things and Their Habitats- Developing Experts Yr 4 - Know what vertebrates and invertebrates are - Know how to classify animals based on their characteristics - Know that animals (including humans) adapt according to their habitat changes	Rocks– Developing Experts Yr 3 - Explain how rocks are formed - Explain how fossils are formed - Identify different types of soil	Living Things and their habitats– Developing Experts Y5 - Know about the work of David Attenborough & Dame Jane Goodall - Know that different animals have different life cycles (mammals/reptiles/birds/insects/amphibians) - Know the difference between sexual and asexual reproduction	Living things and their habitats– Developing Experts Y6 - Know the 6 kingdoms of life - Know how to classify living organisms - Know that microorganisms can be good and bad for us - Know that fungi are different to plants