



		Year 54 lessons per fortnight				Year 64 lessons per fortnight		
	Wk	Topic	Learning Aims	Assessment		Topic	Learning Aims	Assessment
Autumn - rotation	1	Animals, including Humans	Know some different life cycles of living things Describe the changes that affect humans from birth to old age Explain what puberty is and how it causes physical changes in boys and girls Vocabulary: reproduce, adult, foetus, embryo, puberty, time period, gestation, breeding, growth spurt, childhood, motor skills, milk teeth, labour, adolescence, bloodstream, hormone, growth, appetite, cataract, cardiovascular, plasticity, memory, neurodegenerative	Baseline test (GL)		Animals, including Humans	Know how the heart functions and how blood is pumped around the body Describe the composition of blood and the functions of its components Describe how our body cares for the health of our blood Explain how to prevent disease by maintaining a healthy diet Explore the human heart, understanding what affects heart rate Vocabulary: Transportation, cell, nutrients, blood, circulatory system, vessels, heart attack, artery, fatty deposits, vein, contract, relax, oxygenated, cancer, poison, cigarette, balanced diet, vitamin, minerals, protein, platelet, antibody, transfusion, blood group, diabetes, insulin, pancreas	
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	8	Forces	Know how different forces act Explain the impact of natural and applied forces Create models to represent an understanding of forces Vocabulary: gravity, weight, mass, air resistance, opposing, streamlined, upthrust, buoyant, sink, friction, resistance, lubricant, newton, lever, load pivot, fulcrum, pulley, mechanism, gear	End of topic test		Light	Describe what a ray of light is and how it travels. Describe materials in terms of their optical properties. Explain the effect of lenses Vocabulary: shadow, opposite, obstruct, light ray, fluorescent, luminous, transparent, opaque, focal point, lens, refraction, convex, spectrum, prism, white light, medium, magnify, rainbow, apparent, distorted, filter, primary, secondary, magenta, cyan	End of topic test
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	15			End of topic test				End of topic test
Spring - rotation	1	Change of Materials	Know ways in which materials can change Describe changes that can happen to materials Explain how physical changes can be reversed Vocabulary: pure, solute, solvent, solution, evaporate, reversible, mixture, physical change, melting, evaporate, irreversible, compare, product, variable, control, corrosion, rusting, combustion, fuel, oxygen, extinguish, reaction, predict, acid, carbon dioxide			Evolution and inheritance	Know the theory of evolution Explain what natural selection is Explore and challenge modern scientific approaches to genetic modification Vocabulary: adaptation, desert, cactus, insulating, environment, fossil, fossilisation, evidence, dinosaur, petrified, genetically modified crops, toxin, resilience, breeding, yield, generation, species, evolution, offspring, DNA, natural selection, palaeontologist	
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	7	Properties of Materials	Group and compare everyday materials and their uses Explore materials extracted from natural resources, explaining their uses Investigate the properties of materials Vocabulary: conductive, magnetic, durable, transparent, versatile, thermal, molecules, insulator, hardness, force, iron, steel, stone, dissolve, solute, insoluble, soluble, solvent, solution, saturation, pure, mixture, filtering, sieving, evaporation			Electricity	Recall parts of a circuit and their functions Explain the impact of adding to, or removing components from, a circuit Build and create circuit models Vocabulary: Battery, circuit, current, resistance, voltage, amps, crocodile clips, bulb, increase, decrease, dimmer, switch	
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Summer - rotation	1	Earth and Space	Know the position and movement of the Earth in space Identify planets in the solar system and their orbit of the sun Explore various theories behind the Big Bang Theory Vocabulary: geocentric, heliocentric, orbit, axis, season, poles, eclipse, hemisphere, rocky, gas, dwarf, moon, solar system, astronomy, universe, Milky Way, expand, Big Bang theory, tides, gravitational force, black hole, mass, celestial, phase, illuminate, waxing, waning			Living things and their habitats	Know the five kingdoms of life and name some examples within them Describe different classes of vertebrates Explain what lives in soil habitats Give examples of microorganisms Vocabulary: classify, spore, micro-organism, seed, similarities, multicellular, unicellular, kingdom, cell, MRS GREN, Latin, genus, Carl Linnaeus, class, species, vertebrate, cold-blooded, amphibian, reptile, mammal, carbon dioxide, microorganism, plant, oxygen, microscopic, mycelium, fungi, mushrooms, yeasts, hyphae	
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	5	Living Thing & Habitats	Know about the life and work of scientists Describe the life cycles of different plants and animals Compare reproductive processes in different living things Vocabulary: fertilisation, genes, sexual, pollination, pollen, asexual, plantlet, bulb, tuber, bacteria, metamorphosis, larva, pupa, tadpole, butterfly, unborn, egg, hatch, fledgling, mammary gland, documentary, naturalist, lecture, chimpanzee, primatologist, primate, endangered					
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