Walkwood
Church of England Middle School

Science

	Wk	Year 5 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, plantation, trait, propagation, horticulturalist, clone, growth spurt, childhood, motor skills, milk teeth, labour, adolescence, bloodstream, hormone, growth, appetite, cataract, cardiovascular, plasticity, memory, neurodegenerative	Baseline test (GL)
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	6			**Summative:** End of topic test
	7	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	
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	12			**Summative:** End of topic test
	13	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	
	14			
	15			
Spring - *rotation*	1			
	2			**Summative:** Experiment Big Write
	3	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	
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	10			**Summative:** End of topic test
	11	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	
	12			
Summer - *rotation*	1			
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	4			**Summative:** End of topic test
	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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	10			Summative: End of topic test
	11			End of year 5 Assessment
	12			

Year 6 Topic	Learning Aims	Assessment
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 the importance of bacteria for our health 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	**Summative:** 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	**Summative:** End of topic test
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	Summative: End of topic test
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	**Summative:** End of topic test
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 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 -	**Summative:** End of topic test GL Assessment End of year 6 Assessment