

All Saints CVA

Science Coverage Year 5 and Year 6

Separate science pathways 2026 to 2027

Year 5 pathway. Year 5 pupils are taught the six Kapow Year 4 units because, as Year 4 pupils in the former Year 4/5 class, they completed the Year 5 sequence last year. Teaching revisits prerequisite knowledge and works towards secure Year 4 outcomes without unnecessary repetition of last year’s content.

Year 6 pathway. Year 6 pupils are taught the six Kapow Year 6 units, building directly on the Year 5 sequence completed last year. Science is taught separately so that each year group receives the correct statutory content, appropriate challenge and assessment against its own endpoints.

Term	Year 5 unit Kapow Year 4	Year 5 essential knowledge	Year 5 vocabulary	Year 6 unit Kapow Year 6	Year 6 essential knowledge	Year 6 vocabulary
Autumn 1	Animals Including Humans: Digestion and Food.	Functions of digestive organs; types and functions of human teeth; producers, predators and prey in food chains.	digestive system, oesophagus, stomach, intestine, incisor, canine, premolar, molar, producer, predator, prey	Living Things: Classifying Big and Small.	Classify microorganisms, plants and animals into broad groups using similarities, differences and observable characteristics; justify classifications.	organism, microorganism, vertebrate, invertebrate, cold-blooded, warm-blooded, exoskeleton, conifer, fern, moss, classification key
Autumn 2	Energy: Electricity and Circuits.	Electrical appliances; components and complete loops in simple series circuits; switches; conductors and insulators.	electricity, appliance, mains, cell, wire, bulb, buzzer, motor, switch, circuit, conductor, insulator	Energy: Light and Reflection.	Light travels in straight lines; objects are seen when light enters the eye; reflected light; straight-line travel explains shadow shape.	light ray, light source, reflection, reflective, pupil, ray diagram, shadow, opaque, transparent
Spring 1	Materials: States of Matter.	Solids, liquids and gases; changes of state through heating and cooling; melting and freezing temperatures; evaporation, condensation and the water cycle.	solid, liquid, gas, state, melting, freezing, evaporation, condensation, temperature, degrees Celsius, water cycle	Living Things: Evolution and Inheritance.	Living things change over time; fossils provide evidence; offspring vary; adaptations support survival and may lead to evolution.	adaptation, environment, evolution, fossil, gene, inherit, inheritance, offspring, natural selection, variation
Spring 2	Energy: Sound and Vibrations.	Sound is caused by vibrations travelling through a medium; patterns in pitch and volume; sound becomes fainter with distance.	sound, vibration, medium, ear, volume, pitch, sound source, distance, insulation	Energy: Circuits Batteries and Switches.	Cell number and voltage affect components; compare variations in circuit function; use recognised electrical symbols in circuit diagrams.	cell, battery, circuit diagram, component, current, resistance, voltage, bulb, buzzer, switch, symbol
Summer 1	Living Things: Classification and Changing Habitats.	Grouping living things; using classification keys; environmental change and its possible dangers to living things.	classification, key, organism, vertebrate, invertebrate, flowering, non-flowering, conservation, pollution, endangered	Animals Including Humans: Circulation and Health.	Main parts and functions of the circulatory system; transport of nutrients and water; effects of diet, exercise, drugs and lifestyle.	heart, blood, blood vessel, bloodstream, oxygen, carbon dioxide, circulatory system, pulse, heart rate, nutrient, drug
Summer 2	Making Connections: How Does the Flow of Liquids Compare.	Apply states-of-matter and material knowledge to compare flow; investigate how viscosity and temperature can affect liquids.	liquid, flow, viscosity, temperature, property, variable, measurement, data, pattern, conclusion	Making Connections: Are Some Sunglasses Safer Than Others.	Apply light, materials and health knowledge to investigate UV protection and evaluate sunglasses using controlled tests and reliable evidence.	ultraviolet, UV, light transmission, protection, variable, accuracy, repeat reading, reliability, evidence, conclusion

Organisation. The two pathways may share resources, demonstrations or scientific discussion when useful, but direct teaching, practical enquiries, vocabulary and assessed outcomes remain year-group specific.

Coverage assurance. Subject leadership checks both pathways against the relevant statutory content and working scientifically expectations. Detailed Kapow lesson resources remain secured for staff use.

Science Skills Assessment and Inclusion

Year 5 and Year 6 separate pathways

Term	Year 5 working scientifically	Year 5 assessment evidence	Year 6 working scientifically	Year 6 assessment evidence
Autumn 1	Skills. Ask relevant questions; model digestion; make careful observations and fair tests; record diagrams and tables.	Explain digestive functions and tooth types; interpret food chains; use evidence to explain dental-health choices.	Skills. Use secondary sources and observations; record complex classifications; evaluate evidence and justify decisions.	Construct and evaluate classification keys; give evidence-based reasons for grouping unfamiliar organisms.
Autumn 2	Skills. Construct and compare circuits; observe systematically; use labelled diagrams; predict, test and improve.	Build and diagnose a series circuit; explain switches; classify conductors and insulators using test evidence.	Skills. Plan enquiries; control variables; measure accurately; use ray diagrams; predict and explain using evidence.	Use straight-line light models to explain vision, reflection and shadows; evaluate investigation evidence.
Spring 1	Skills. Classify; measure temperature; observe change; record in tables and diagrams; draw evidence-based conclusions.	Justify classification; explain changes of state and the water cycle; relate evaporation rate to temperature.	Skills. Analyse models, observations and secondary evidence; identify evidence supporting ideas; explain relationships and uncertainty.	Explain variation, adaptation and evolution; use fossil and other evidence to support or challenge claims.
Spring 2	Skills. Plan comparative tests; measure; identify patterns; present data; conclude, predict and improve.	Explain vibration; investigate pitch, volume or distance; present patterns and support conclusions with evidence.	Skills. Plan fair tests; vary one factor; take repeat readings; use circuit symbols; analyse patterns and reliability.	Draw recognised circuit diagrams; explain component changes using cells and voltage; justify conclusions from data.
Summer 1	Skills. Survey, group and classify; use and create keys; gather data; identify similarities and changes.	Create and justify a classification key; explain environmental effects on organisms and suggest responsible action.	Skills. Measure pulse accurately; calculate and compare; graph results; evaluate reliability; use evidence responsibly.	Label and explain circulation; describe transport; analyse evidence about exercise and lifestyle effects.
Summer 2	Skills. Control variables; measure time or distance; repeat readings; graph, compare, conclude and evaluate.	Plan and complete a comparative flow enquiry; explain patterns and evaluate reliability and improvements.	Skills. Plan a controlled enquiry; use repeat readings; record complex data; assess trustworthiness; communicate a justified recommendation.	Evaluate sunglasses using reliable evidence; explain UV risk and protection; identify limitations and improvements.

Progression and starting points. Year 5 teaching checks and supplies any prerequisite Year 4 knowledge before new learning, while recognising that pupils already encountered Year 5 content last year. Year 6 retrieves and connects Year 5 learning and works towards increasing accuracy, control of variables, interpretation, evaluation and evidence-based argument.	Inclusion for all. All pupils access an ambitious year-group curriculum through explicit modelling, pre-taught vocabulary, accessible equipment, chunked instructions and varied ways to record. Adaptations reflect individual plans and sensory or physical needs. Higher prior attainers deepen enquiry, reasoning and application rather than receive unrelated extra content.
Assessment vocabulary and retention. Retrieval, discussion, practical competence, diagrams, tables, graphs and explanations are considered together. Misconceptions are addressed promptly. Vocabulary is explicitly taught and revisited; no single written task is used in isolation.	Enrichment and quality assurance. Outdoor work, practical problems, scientific texts and links with health, sustainability and technology enrich learning. The subject leader samples both pathways, speaks with pupils and staff, and evaluates coverage, retention, progression, participation and achievement of different groups.

Curriculum basis: National Curriculum in England Science Programmes of Study and Kapow Primary Science.