

| SCIENCE | Key Stage 1 | | Lower Key Stage 2 | | Upper Key Stage 2 | |
|--|---|---|---|--|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Note: students are not expected to cover each aspect for every area of study | | | | | | |
| Working scientifically | | | | | | |
| Questioning | ask simple questions | ask simple questions | ask relevant questions | ask relevant questions | ask questions which can be investigated | ask questions which can be investigated |
| Observing & recording | observe closely, use to answer questions | observe closely, use to answer questions, record simple data | make measurements | analyse data | take measurements with increasing accuracy | take measurements with increasing accuracy |
| Equipment | simple (hand lenses, egg timers) | simple (hand lenses, egg timers) | measuring devices, thermometers | measuring devices, thermometers | a range of scientific equipment - stopwatch, scales, spring balance | a range of scientific equipment - ph meter, scales, spring balance |
| Testing | do simple tests | do simple tests | design simple tests | design simple tests | plan enquiries, recognise and control variables | plan enquiries, recognise and control variables |
| Categorising | identify and classify | identify and classify | identify differences and similarities | identify differences and similarities | classification tables | classification tables |
| Reporting | | | oral and written explanations, displays and presentations | oral and written explanations, displays and presentations | oral and written reports, tables, diagrams with labels, bar and line graphs, models | oral and written reports, tables, diagrams with labels, bar and line graphs, models |
| Draw conclusions | | | suggest improvements, predict further tests | suggest improvements, predict further tests | explain causal relationships | explain causal relationships |
| Use evidence | | | to answer questions, support findings | to answer questions, support findings | make predictions and set up further fair tests | make predictions and set up further fair tests |
| Earth & Space | | | | | | |
| Sun | observe the sun's apparent movement, be aware of seasons | | | | use Earth's rotation to describe day and night, describe Earth's orbit in relation to the Sun | |
| | | | | Moon | describe the Moon's orbit | |
| Living things | | | | | | |
| Plants | Identify & name plants & parts | how seeds grow, what plants need for life | function of roots, stem, leaves and flowers, requirements for life and growth, plant life cycle | identify, classify into groups (trees, grasses, flowers, mosses) then give reasons why | describe life cycles, growth, reproduction and death | describe life processes |
| Animals | Identify & name, describe & compare | offspring, basic needs for survival | nutrition, how nutrients are transported, skeletons and muscles | identify, classify into groups (e.g. fish, amphibians, reptiles, birds, mammals) then give reasons why | describe life cycles, birth, growth, development, reproduction, death | describe life processes |
| Humans | Identify, name, draw & label body parts | Exercise, healthy eating and hygiene | nutrition, how nutrients are transported, skeletons and muscles | body parts, digestive system, types of teeth | describe life cycles, circulatory system, function of heart, blood vessels and blood | describe changes in humans through the life cycle, recognise the impact of diet, exercise, drugs and lifestyle |
| Habitats | | how habitats provide for needs of animals and depend on them | | recognise changing environments and dangers to habitats (e.g. deforestation) | | |
| Food chains | | simple food chain | | food webs | | |
| Rocks | | | compare and group rocks, properties & formation, fossils | | | |
| Inheritance | | | | identify how living things resemble their parents in many features | | recognise that offspring normally vary and are not identical to their parents |
| Evolution | | | | recognise that fossils provide information about living things | | recognise how and why the human skeleton has changed since we separated from other primates |
| Adaptation | | | | identify how living things are suited to and adapt to their environment | | describe how adaptation leads to evolution |
| Everyday materials | | | | | | |
| Materials | identify, describe & compare - wood, plastic, glass, metal, water, rock | identify & compare uses of materials | | | give reasons, based on evidence, for the uses of materials | |
| Solids, liquids & gases | change solids by squashing, bending, twisting | | | group solids, liquids and gases, | compare and group based on evidence of properties - conductivity, hardness, solubility | |
| Changing states of matter | | | | evaporation and condensation | decide how mixtures might be separated - filtering, sieving and evaporating | |
| Reversible and irreversible changes | | | | | demonstrate that dissolving, mixing and changes of state are reversible | explain that some changes form new materials - burning, oxidising, action of acid |
| Light & sound | | | | | | |
| Light sources & properties | | | observe and name | | | recognise that travels in straight lines, reflection |
| Shadows | | | observe and investigate how shadows change shape & size | | | predict size and shape of shadows when position changes |
| How sounds are made | | | | notice vibrations, name sources of sounds | | |
| Pitch | | | | find patterns in changing pitch | | |
| Volume | | | | find patterns, recognise the sounds get fainter as the distance from source increases | | |
| Forces & electricity | | | | | | |
| Movement | | observe movement - rolling, falling, flying, walking, running, use words like faster and slower | | | | explain gravity, air resistance, water resistance, friction, how force is transferred through gears, levels, pulleys, springs |
| Magnets | | | notice forces, strength of magnets, attract and repel, classify magnetism of objects | | know that magnets have two poles, predict if magnets will attract/repel | |
| Circuits | | | | construct series circuit, identify whether bulbs will work or not, use switches | | identify and name - cells, wires, bulbs, switches, buzzers, how voltage affects bulbs/buzzers, how switches work |
| Conductors & insulators | | | | recognise some common materials for each, associate metal with conduction | | |