

# Programme of Study



Subject: Science

Year 8

## Autumn 1

**Unit 1: Health and lifestyle: nutrients, food tests, unhealthy diet, the digestive system, bacteria and enzymes in digestion, drugs, alcohol, smoking**

**Unit 2: Ecosystem processes: photosynthesis, leaves, plant minerals, chemosynthesis, aerobic respiration, anaerobic respiration, food chains and webs, disruption to food chains and webs, ecosystems**

## Autumn 2

**Unit 3: Adaptation and inheritance: competition and adaptation, adapting to change, variation, continuous and discontinuous, inheritance, natural selection, extinction**

**Unit 4: The periodic table: metals and non-metals, groups and periods, the elements of group 1, the elements of group 7, the elements of group 0**

## Spring 1

**Unit 5: Separation techniques: mixtures, solutions, solubility, filtration, evaporation and distillation, chromatography**

**Unit 6: Metals and acids: acids and metals, metals and oxygen, metals and water, metal displacement reactions, extracting metals, ceramics, polymers, composites**

## Spring 2

**Unit 7: The earth: the earth and its atmosphere, sedimentary rocks, igneous and metamorphic rocks, the rock cycle, the carbon cycle, climatic change, recycling**

**Unit 8: Electricity and magnetism: charging up, circuits and current, potential difference, series and parallel, resistance, magnets and magnetic fields, electromagnets, using electromagnets**

## Summer 1

**Unit 9: Energy: food and fuels, energy adds up, energy and temperature, energy transfer: particles, energy transfer: radiation, energy resources, energy and power, work, energy and machines**

## Summer 2

**Unit 10: Motion and pressure: speed, motion graphs, pressure in gases, pressure in liquids, pressure on solids, turning forces**