

# Programme of Study



Subject: Science

Year 7

## Autumn 1

**Unit 1: Working Scientifically:** asking scientific questions, planning investigations, recording data, analyzing data, evaluating data

**Unit 2: Cells:** observing cells, plant and animal cells, specialized cells, movement of substances, unicellular organisms

## Autumn 2

**Unit 3: Structure and Function of Body Systems:** levels of organization, gas exchange, breathing, the skeleton, movement: joints, movement: muscles.

**Unit 4: Reproduction:** adolescence, reproductive systems, fertilization and implantation, development of a fetus, the menstrual cycle, flowers and pollination, fertilization and germination, seed dispersal

## Spring 1

**Unit 5: Particles and their behaviour:** the particle model, states of matter, melting and freezing, boiling, more changes of state, diffusion, gas pressure

**Unit 6: Elements, atoms and compounds:** elements, atoms, compounds, chemical formulae

## Spring 2

**Unit 7: Reactions:** chemical reactions, word equations, burning fuels, thermal decomposition, conversion of mass, exothermic and endothermic

**Unit 8: Acids and alkalis:** Acids and alkalis, indicators and pH, neutralization, making salts

**Unit 9: Forces:** introduction to forces, squashing and stretching, drag forces and friction, forces at a distance, balanced and unbalanced.

## Summer 1

**Unit 10: Sound:** waves, sound and energy transfer, loudness and pitch, detecting sound, echoes and ultrasound

**Unit 11: Light:** light, reflection, refraction, the eye and the camera, color

## Summer 2

**Unit 12: Space:** the night sky, the solar system, the earth, the moon