

SCIENCE

Cross curricular links

Mathematics, English, geography, PSHE, physical education, social skills, careers, preparation for adulthood.

Skills

Analysis, attention to detail, communication, problem solving, patience.

Further study

Access science, GCSE science, engineering, traineeship, apprenticeship.

Career paths

Lab technician, health & social care, renewables, engineering, beekeeping, gardening and horticulture, farmer, animal care.

KS4 YEAR 2

Biology <ul style="list-style-type: none"> Flowers, vegetables & weeds Preparing beds Sow seeds and tubers Prick out seeds / thin out plants Care for plants 	Chemistry <ul style="list-style-type: none"> Ecosystems Thermal radiation DNA profiling & fingerprints Alkali metals Exothermic reactions 	Physics <ul style="list-style-type: none"> Energy Production Creating a Biomass Fossil Fuel Power Stations Electricity Production Turbines
Physics <ul style="list-style-type: none"> Health and Fitness Forces and Motion Nutrition & balanced diet BMI Nutrients and deficiency Aerobic respiration 	Chemistry <ul style="list-style-type: none"> Acids & alkalis Pressure Respiration & circulation Chemical reactions Electrical charge 	Biology <ul style="list-style-type: none"> Cells Using a microscope DNA & variation Inherited & environmental causes Natural selection
Physics <ul style="list-style-type: none"> Spherical bodies Phases of the moon The solar system Life cycle of stars Constellations Space Physics 	Chemistry <ul style="list-style-type: none"> Periodic Table Chemical Reactions Elements Physical and Chemical Properties Dimitri Mendeleev 	Biology <ul style="list-style-type: none"> Parts of a plant Embryo parts Planting Visit a garden centre Osmosis Environmental factors

KS4 YEAR 1

Biology <ul style="list-style-type: none"> Reproduction Plants Animals Humans Pollination Life Cycles Reproductive Organs 	Chemistry <ul style="list-style-type: none"> Spherical bodies Phases of the moon The solar system Life cycle of stars Constellations 	Physics <ul style="list-style-type: none"> Energy Radiation Convection Conduction Measuring Energy Electrical Appliances Fuels
Physics <ul style="list-style-type: none"> Types of forces Balanced and unbalanced force Friction Gravity Speed and movement Distance / time graphs 	Chemistry <ul style="list-style-type: none"> Hazard labels and meanings Acids & alkalis Ph and indicators Natural indicators Neutralisation 	Biology <ul style="list-style-type: none"> Human and the Environment Variation and Adoption
Physics <ul style="list-style-type: none"> Heat & temperature Expansion & contraction Conduction Convection Radiation Energy efficient design 	Chemistry <ul style="list-style-type: none"> Physical & chemical changes Emulsifiers Research & preparation to cook a meal Equipment and methods Fermentation 	Physics <ul style="list-style-type: none"> Energy types and transfers Electrical charge Current & potential difference Series & parallel circuits Resistance

KS3 YEAR 3

Biology <ul style="list-style-type: none"> Plant Parts Plant Functions Life Cycles Requirements for Life and Growth Classification of Plants 	Chemistry <ul style="list-style-type: none"> Earth Human Impact on Earth Rocks Volcano Formation and Types Volcanic Eruptions 	Physics <ul style="list-style-type: none"> Renewables Climate Change Global Warming
Physics <ul style="list-style-type: none"> Sound Light How light travels? Reflection Refraction Colour spectrum Shadows Transparent Translucent Opaque 	Chemistry <ul style="list-style-type: none"> Solids, Liquids and Gases Atoms and Molecules Separation Filtration Evaporation Condensation Precipitation 	Biology <ul style="list-style-type: none"> Group Classification Life Cycles Support and Movement Diets Habitats Evolution Charles Darwin
Physics <ul style="list-style-type: none"> Heat & temperature Expansion & contraction Conduction Convection Radiation Energy efficient design 	Chemistry <ul style="list-style-type: none"> Chemical Reactions in Food Basic food hygiene Pathogens & food poisoning Handling food safely Sell by, use by, best before Storing food safely 	Physics <ul style="list-style-type: none"> Magnetic material Magnetic fields Earth's magnetic field Electromagnets

KS3 YEAR 2

Biology <ul style="list-style-type: none"> Plant Parts Plant Functions Life Cycles Requirements for Life and Growth Classification of Plants 	Chemistry <ul style="list-style-type: none"> Earth Human Impact on Earth Rocks Volcano Formation and Types Volcanic Eruptions 	Physics <ul style="list-style-type: none"> Renewables Climate Change Global Warming
Physics <ul style="list-style-type: none"> Sound Light How light travels? Reflection Refraction Colour spectrum Shadows Transparent Translucent Opaque 	Chemistry <ul style="list-style-type: none"> Solids, Liquids and Gases Atoms and Molecules Separation Filtration Evaporation Condensation Precipitation 	Biology <ul style="list-style-type: none"> Group Classification Life Cycles Support and Movement Diets Habitats Evolution Charles Darwin

PREPARATION FOR ADULTHOOD KEY:

- Employment & Higher Education
- Independent Living
- Community Inclusion
- Good Health