

Key Stage 3 Learning Track

This way to Key Stage 4!



Reactions of metals
Reactions of metal oxides
Reactions of acids and alkalis
Measuring pH
Electrolysis
Maths: Measurement and scale

Review of yearly skills
Knowledge gap fills
Preparing for GCSE
Required Practicals
Literacy: Key terms review
PSHEC: Working with others, careers in Science

Chemical Changes, Skills Development

Year 9 Term 3

Digestive System
Food tests
Enzymes
Heart and Circulation
Health
Cancer
Plant tissues and transport
PSHEC: Healthy lifestyles

Calculating density
States of matter
Internal energy
Specific latent heat
Gas pressure
Maths: Rearranging equations, interpreting graphs

Microscopy
Plant and Animal Cells
Prokaryotic and Eukaryotic
Specialised Cells
Stem cells
Cell division
Cell transport
Maths: Using SI units, rearranging equations, scale, significant figures
PSHEC: Ethics
RE: Morality

Subatomic particles and their properties
History of the Periodic Table
Electron configurations
Group 1,7 and 0 elements
Transition metals
Isotopes
Writing equations
History: Organising events chronologically
Maths: Rearranging equations, interpreting graphs

Organisation, Particle Model, Structure and Bonding

Ionic compounds
Covalent compounds
Metallic bonding
Polymers
Nanotechnology
DT: Material choices

Year 9 Term 1

Cells, Atomic Structure, Energy

Year 9 Term 2

Metals and Non-metals
Groups and Periods
Group 1,7 and 0
Properties
History: Periodic Table chronology

Review of yearly skills
Knowledge gap fills
Preparing for year 8
Literacy: Key terms review

Periodic Table, Adaptation, Skills Development

Energy types and stores
Kinetic and Elastic Potential Energy
Specific Heat Capacity
Power
Efficiency and insulation
Renewable and Non-renewable energy
Maths: Rearranging equations, interpreting graphs, SI units

Year 8 Term 3

Ecosystems, Separation, Metals and Acids, Motion and Pressure

Year 8 Term 2

Competition
Adaptation
Types of variation
Inheritance and Natural Selection
Classification
Extinction
Maths: Scale, big and small numbers

Plant organ structures
Photosynthesis
Respiration
Food chains and webs
Maths: Graph skills
PSHEC: Social responsibility

Calculating speed
Motion graphs
Pressure
Turning forces
Maths: Rearranging equations, interpreting graphs, using SI units

Energy in food
Energy transfers
Conduction, convection and radiation
Renewable and non-renewable energy
Power
PSHEC: Social responsibility
Maths: Rearranging equations, using SI units, interpreting graphs

Current and voltage
Series and parallel circuits
Resistance
Electrical safety
Static electricity
Magnets and electromagnets
Maths: Using SI units, rearranging equations
PSHEC: Personal safety

Health, Electricity, Earth Structure, Energy

Reactions with acids, oxygen and water
Displacement reactions
Ceramics, polymers and composites
Maths: Calculating rates of reaction

Mixtures
Solutions and solubility
Filtration
Evaporation and distillation
Chromatography

Structure of the Earth
Types of rocks
The rock cycle
Weathering
The atmosphere
Global warming
Geography: Structure of the Earth
PSHEC: Social responsibility

Healthy diets
Digestive system
Food test
Enzyme structure and function
Communicable and non-communicable
Drugs, Smoking and Alcohol
Maths: Graph skills
Careers: Science in the workplace
PSHEC: Healthy lifestyles

Puberty
Human reproductive systems
Sexual Reproduction
Reproduction in plants
Contraception
PSHEC/RSE: Changes in puberty
Feelings and relationships

Year 7 Term 3

Chemical Reactions, Space, Light, Skills Development

Year 8 Term 1

Particles, Acids and Alkalis, Sound, Reproduction

Word equations
Fuels
Combustion
Exo and endothermic
Maths: Calculating reaction masses

Light as a wave
The spectrum of light
Reflection
Refraction
Maths: Measuring angles

Types of wave
Properties of waves (frequency, wavelength, amplitude)
Hearing and structure of the ear
Maths: Calculating wavelengths

What are acids and alkalis?
Common acids and alkalis
pH scale
Neutralisation
Hazards and safety

Plant and animal cells
Microscopy
Specialised Cells
Maths: Calculating magnification
PSHEC: Ethical decisions in Science

Skills Development
Key ideas in Science
Maths: Graph skills
Careers: Science in the workplace
Literacy: Key terms review

Year 7 Term 2

Passport to practical, Cells, Atoms, Elements and Compounds, Forces, Structure and Function of Body Systems

Year 7 Term 1

Properties of matter
States of matter
Changes of state
Diffusion
Maths: Graph skills

Balanced and unbalanced forces
Contact and non-contact
Forces and motion
Maths: Calculating resultant forces

Structure of the atom (proton, neutron, electron)
Periodic Table
Compounds and reactions
Maths: Balancing equations

Organs and organ systems
Breathing
Structure of the heart and lungs
Diseases of the respiratory system
Skeleton, joints and muscles
PSHEC: Health
PE: Impacts of exercise on the body



How am I assessed?

You will be assessed by completing 2 PEAL tasks, as well as a test paper sat during lesson time at the end of each half term. These are marked and graded by your teacher. You will then complete intervention tasks to address gaps in your knowledge. You will also complete a yearly mock paper in the hall covering all topics you have studied in that year.