



YEAR 8 SCIENCE

LEARNING JOURNEY

Support. Believe. Achieve.



AUTUMN
TERM

START

1



INTRODUCTION TO SCIENCE

- What is science?
- Scientific enquiries
- Safety in the lab
- Science in everyday life

GCSE Link: Nature of Science
Careers Link: All careers in science and technology

2



WORKING SCIENTIFICALLY

- Planning investigations
- Variables
- Collecting data
- Analysing and evaluating

GCSE Link: Working Scientifically
Careers Link: Research Scientist, Laboratory Technician, Forensic Scientist

3



HEALTH AND LIFESTYLE

- Diet and nutrition
- Exercise and fitness
- Drugs and alcohol
- Health and disease

GCSE Link: Biology – Health
Careers Link: Doctor, Dietitian, Sports Therapist, Nurse

4



THE PERIODIC TABLE

- Elements and symbols
- Atomic structure
- The periodic table
- Group and period trends

GCSE Link: Atomic Structure and the Periodic Table
Careers Link: Chemist, Materials Scientist, Pharmacist

SPRING
TERM

5



BIOLOGICAL PROCESSES

- Respiration
- Photosynthesis
- Digestion
- Transport in plants

GCSE Link: Biology
Careers Link: Doctor, Biologist, Veterinarian, Pharmacist

6



SEPARATION TECHNIQUES

- Filtration
- Distillation
- Chromatography
- Crystallisation

GCSE Link: Chemistry – Separation Techniques
Careers Link: Chemist, Laboratory Technician, Environmental Scientist

7



ECOSYSTEMS AND ADAPTATION

- Ecosystems
- Food chains and webs
- Adaptation
- Human impact

GCSE Link: Biology – Ecosystems
Careers Link: Ecologist, Conservationist, Environmental Scientist

8



ELECTRICITY AND MAGNETISM

- Electric circuits
- Current and voltage
- Electromagnets
- Magnetism

GCSE Link: Physics – Electricity and Magnetism
Careers Link: Electrician, Engineer, Physicist, Technician

SUMMER
TERM

9



INHERITANCE

- Genes and chromosomes
- Inherited characteristics
- Variation
- Genetic disorders

GCSE Link: Biology – Inheritance, Variation and Evolution
Careers Link: Geneticist, Doctor, Biotechnologist

10



ENERGY

- Energy stores
- Energy transfers
- Efficiency
- Renewable energy

GCSE Link: Physics – Energy
Careers Link: Engineer, Environmental Scientist, Energy Consultant

11



MOTION AND PRESSURE

- Speed and velocity
- Forces and motion
- Pressure in fluids
- Atmospheric pressure

GCSE Link: Physics – Motion and Pressure
Careers Link: Engineer, Pilot, Meteorologist

12



METALS AND OTHER MATERIALS

- Properties of metals
- Extracting metals
- Alloys and corrosion
- Polymers and composites

GCSE Link: Chemistry – Properties of Materials
Careers Link: Materials Scientist, Engineer, Product Designer

READY
FOR
YEAR 9!



CAREERS SPOTLIGHT



ELECTRICIAN

Electricians install, maintain and repair electrical systems in homes, businesses and industries.



MIDWIFE

Midwives support women during pregnancy, birth and beyond, providing care and advice.

KEY SKILLS DEVELOPED THROUGHOUT YEAR 8



Practical Investigation



Data Analysis



Problem Solving



Scientific Communication



Scientific Literacy



Critical Thinking

LOOKING AHEAD

By the end of Year 8, students will have developed the knowledge and skills needed to explore more complex ideas in Biology, Chemistry and Physics and continue their journey towards GCSE Science.