What is Chemistry all about?
Chemistry explores and explains the composition and behaviour of matter and the chemical processes that occur on Earth and beyond. Chemical models and theories are used to describe and explain known chemical reactions and processes. Chemistry underpins the production and development of energy, the maintenance of clean air and water, the production of food, medicines and new materials, and the treatment of wastes.

Areas of Study:

Unit 1:
• Periodic Table
• Mole Concept
• Chemical Bonding
• Carbon Chemistry
• Research Investigation

Unit 2:
• Water
• Acids and Bases
• Redox Chemistry
• Practical Investigation
• Stoichiometry
• Chemical Analysis

Unit 3:
• Fuels – types and energy sources
• Galvanic cells and Fuel cells
• Reaction rates
• Equilibrium
• Electrolysis

Unit 4:
• Organic compounds – reaction and analysis
• Food molecules – metabolism and energy content
• Practical Investigation

Type of Assessments in this subject:
• Practical Reports
• Modelling Activities
• Problem Solving
• Data Analysis

• Tests
• Questions and Problems
• Examinations

Key Skills developed through this area are:
• Develop aims and questions, formulate hypotheses and make predictions
• Plan and undertake investigations
• Comply with safety and ethical guidelines
• Conduct investigations to collect and record data and draw evidence-based conclusions
• Analyse and evaluate data, methods and scientific models
• Communicate and explain scientific ideas

Possible Occupations that could relate to this study include:

Medical Practitioner  Pharmacist  Science Teacher  Chemical Engineer  Veterinarian
Biochemist  Dietician  Horticulturist  Food Technologist  Physicist
Dentist  Scientist

Additional Information:
Chemistry Units 1 and 2 are designed to prepare students for Chemistry Units 3 and 4. It is recommended that students studying Chemistry should have good algebra skills. Students are expected to work both theoretically and practically, collect and analyse data, and learn through application.

Interested (tick)