

<b>INCOMPATIBLE SUBJECTS</b>	NIL	<b>DEPENDENT SUBJECTS</b>	Mathematical Methods or General Mathematics General English
<b>PRE REQUISITE SUBJECTS</b>	Year 10 Science Exploration - B Year 10 Mathematics – B, or Year Extension Mathematics - C	<b>POTENTIAL QCE POINTS</b>	
<b>FINANCIAL COMMITMENT</b>	Covered under the Student Resource Scheme	<b>CONTRIBUTES TO ATAR</b>	YES

## COURSE CONTENT

UNIT 1	UNIT 2	UNIT 3	UNIT 4
<b>Chemical fundamentals – structure, properties and reactions.</b> Properties and structure of atoms Properties and structure of materials Chemical reactions – reactants, products, and energy change	<b>Molecular interactions and reactions.</b> Intermolecular forces and gases Aqueous solutions and acidity Rates of chemical reactions	<b>Equilibrium, acids and redox reactions.</b> Chemical equilibrium systems Oxidation and reduction	<b>Structure, synthesis and design.</b> Properties and structure of organic materials Chemical synthesis and design
ASSESSMENT	ASSESSMENT	SUMMATIVE ASSESSMENT	SUMMATIVE ASSESSMENT
Data Test Research Investigation	Student Experiment Exam	Data Test (10%) Research Investigation (20%)	Student Experiment (20%) <b>External Exam (50%)</b>

By the conclusion of the course of study, students will be able to describe and explain scientific concepts, theories, models and systems and their limitations. Students will analyse evidence, interpret evidence, investigate phenomena, evaluate processes, claims and conclusions and communicate understandings, findings, arguments and conclusions. In Units 3 and 4 students complete four summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students also receive a grade from A-E.

## COURSE REQUIREMENTS

Science *Exploration* is a suggested pre-requisite for the subject. Students are also encouraged to take Mathematical Methods or General Mathematics in year 11 and 12 as well as mainstream English.

**Textbook:** Nelson QScience: Chemistry Unit 1 & 2 and Nelson QScience: Chemistry Unit 3 & 4

### Classroom materials:

- Photocopied class notes
- Analytical glassware: beakers, test tubes, stirring rods, measuring cylinders, watch glasses, volumetric glassware, distillation, conical flasks, burettes and pipettes
- Various chemicals
- Data loggers and probes
- Safety equipment – safety goggles
- Equipment: Bunsen burner, tripods, test tube racks, metal stands, clamps and spatulas
- Electronic balances
- Formula booklet

## CAREER PATHWAYS

Laboratory technician, chemical plant worker, anaesthetist, agricultural scientist, geoscience technician, geneticist, geologist, forensic scientist, environmental engineer, ecologist, chemist, botanist, biochemist, medical practitioner, medical scientist, microbiologist, nutritionist, pathologist, pharmacist, toxicologist, veterinarian, wine maker, sports science.

## REAL PEOPLE TALKING ABOUT CHEMISTRY



Hear from current Biology Caboolture SHS students about why they enjoy learning Chemistry.

