

<b>DURATION OF SUBJECT</b>	FULL YEAR	<b>FINANCIAL COMMITMENT</b>	INCL. IN STUDENT RESOURCE SCHEME
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### COURSE CONTENT

UNIT 1	UNIT 2	UNIT 3	UNIT 4
<b>Atoms of the World</b> Chemicals, compounds, states of matter, particle model. compare physical and chemical changes and use the particle model to explain and predict the properties and behaviours of substances	<b>Digging for Gold</b> Explore different types of rocks and the minerals of which they are composed. They compare the different processes and timescales involved in their formation as part of the rock cycle. Students construct and interpret models and representations to aid in the analysis of patterns and interrelationships in data.	<b>Things are heating up</b> Classify different forms of energy, and describe the role of energy in causing change in systems. Students use experimentation to isolate relationships between components in systems and explain these relationships through increasingly complex representations. They make predictions and propose explanations, drawing on evidence to support their views while considering other points of view.	<b>Let's Get Practical</b> Identify cells as the basic units of living things. They will use microscopes and images to distinguish between multicellular and unicellular organisms. Preparation of wet mount slides including correctly constructing biological drawings from microscopic observations. Comparisons of plant and animal cells and the relationship between the structure and function of specialised plant and animal cells, including reproductive cells. Compare the reproductive strategies of various living organisms.
ASSESSMENT	ASSESSMENT	SUMMATIVE ASSESSMENT	SUMMATIVE ASSESSMENT
Experimental Investigation	Research Investigation	Experimental Investigation	Exam

### COURSE REQUIREMENTS

Contribution to the resources scheme offers student access to:

Use of:

- Microscopes
- Science Text (to be advised)

Materials for Classroom activities:

- photocopied class notes
- glassware - beakers, test-tubes, stirring rods, measuring cylinders, watch glasses
- bunsen burners, tripods, test racks, metal stands and clamps, spatulas, scalpel
- electrical equipment - power packs, wiring, light boxes

- probes, dissecting boards, tweezers
- chemicals - copper sulphate, calcium carbonate, marble chips, hydrochloric acid, vinegar,
- metals - aluminium, copper, iron
- geology materials - rock samples - igneous, metamorphic, sedimentary
- safety equipment - aprons, safety goggles
- glassware and chemicals

### CAREER PATHWAYS

Engineer, Oceanographer, Electrician, Radio Technician, Architect, Environmental Health Officer, Hydrologist, Physicist, Lab Technician, Dentist, Optometrist, Doctor, Audiologist, Agricultural Scientist, Taxidermist, Science Teacher, Metallurgist, Chemist, Forensic Scientist, Forest Ranger, Pathologist, Radiographer Bacteriologist, Dietician, Zoologist, Veterinarian, Mineralogist.