



WAGIN DISTRICT HIGH SCHOOL

SEMESTER 2, 2025 OUTLINE

Year 8 - Science

COURSE OUTLINE

At the beginning of semester 1, we will begin with energy around you, energy efficiency, sound energy and light energy. We will then have a look at different types of substances, what an element, compound, mineral and mixture is made up of the physical and chemical properties of it. Students will have the opportunity to experiment the physical and chemical changes. They will explore rocks and mining by looking deeper into the earth and its rocks. Students will identify igneous, sedimentary and metamorphic rocks. Investigative skills will also be developed using the scientific inquiry process and regular lab visits.

COURSE OUTCOMES

The following concepts form the Science Understanding strand of the Western Australian Curriculum will be addressed:

Physical sciences ([ACSSU155](#))

- recognising that kinetic energy is the energy possessed by moving bodies
- recognising that potential energy is stored energy, such as gravitational, chemical and elastic energy
- investigating different forms of energy in terms of the effects they cause, such as gravitational potential causing objects to fall and heat energy transferred between materials that have a different temperature
- recognising that heat energy is often produced as a by-product of energy transfer, such as brakes on a car and light globes
- using flow diagrams to illustrate changes between different forms of energy
- investigating traditional fire-starting methods used by Aboriginal and Torres Strait Islander Peoples and their understanding of the transformation of energy

Chemical Science

- Properties of the different states of [matter](#) can be explained in terms of the motion and arrangement of particles ([ACSSU151](#))
- Differences between elements, compounds and mixtures can be described at a particle level ([ACSSU152](#))
- Chemical change involves substances reacting to form new substances ([ACSSU225](#))

Earth Science

- Sedimentary, igneous and metamorphic rocks contain minerals and are formed by processes that occur within Earth over a variety of timescales ([ACSSU153](#))

TASKS & ASSESSMENT

Students will generally undertake work in blocks of 5 weeks. During this time, they will be expected to complete all required class work and homework, and this will then be assessed in an end of unit test. Students may also be asked to complete quizzes, assignments, lab exams and/or investigations to help develop their understanding of the concepts covered. *While the key content will be taught at school, it is*

essential that students revise at home on a regular basis to help practice new skills and solidify their understanding.

Homework will count 10% towards student's overall grade.

All work samples will then be used to determine the ability and grade of each student.

TIMELINE

	WEEK	KEY CONCEPTS	ASSESSMENTS
Term 3	1 – 5	<i>Energy</i> • Energy around you • Energy efficiency • Sound energy • Light energy	Lab/ Experimental Exam (15%) TEST(10%)
	6 – 10	<i>Substances</i> • Elements • Compounds and mixtures • Minerals	Assignment Investigation (10%) TEST(10%)
Term 4	1 – 5	<i>Physical and Chemical Change</i> • When substances change • Understanding physical change • Minerals	Lab/ Experimental Exam (15%) TEST(10%)
	6 – 10	<i>Rocks and Mining</i> • The earth and its rocks • Igneous rocks • Sedimentary rocks • Metamorphic rocks • Mineral resources	Assignment Investigation(10%) TEST (10%)

Timeline and assessment items may be subject to change.