



WAGIN DISTRICT HIGH SCHOOL SEMESTER 1 OUTLINE

Year 8 Science 2018

COURSE OUTLINE

During first semester the focus in Science will be on Chemical Science, Earth and Space Science and Physical Science.

Students will start Term 1 by looking at solids, liquids and gases, and the particle model. They will then move on to look at physical and chemical changes, and chemical reactions.

During Term 2 students will spend the first 5 weeks focussed on Earth and Space Sciences, specifically learning about rocks and the rock cycle.

For the remainder of Term 2 students will begin their study of Physical Sciences by looking at the different types of energy, and this will be continued into and assessed in Term 3.

In addition, students will spend time looking at the development of these scientific areas over time and how changes in technology have influenced our understandings.

Investigative skills will also be developed through the use of the scientific inquiry process.

COURSE OUTCOMES

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

Chemical Sciences

- The 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 and Space Sciences

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

Physical Sciences

- Energy appears in different forms, including movement (kinetic energy), heat and potential energy, and energy transformations and transfers cause change within systems (ACSSU155)

Students will also look at the Science as a Human Endeavour strand of the Australian Curriculum by addressing the following:

Nature and Development of Science

- Scientific knowledge has changed peoples' understanding of the world and is refined as new evidence becomes available (ACSHE134)
- Science knowledge can develop through collaboration across the disciplines of science and the contributions of people from a range of cultures (ACSHE226)

Use and Influence of Science

- Solutions to contemporary issues that are found using science and technology, may impact on other areas of society and may involve ethical considerations (ACSHE135)
- People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity (ACSHE136)

The Science Inquiry Skills strand will also be covered through the use of investigation and experimentation.

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 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.*

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

TIME LINE

	WEEK	KEY CONCEPTS	ASSESSMENTS
Term 1	1 – 6	<i>Chemical Science - Matter</i> <ul style="list-style-type: none">• States of matter – solids, liquids & gases• Properties of matter• The Particle Model of matter• Elements and the Periodic Table• Molecules, compounds & mixtures• Changes of state	TEST
	7 – 11	<i>Chemical Science – Change</i> <ul style="list-style-type: none">• Physical change• Chemical change• Identifying types of change• Investigating reactions• Reactants and products	Assignment Investigation TEST
Term 2	1 – 5	<i>Earth & Space Science</i> <ul style="list-style-type: none">• Structure of the Earth• Igneous rocks• Sedimentary rocks• Metamorphic rocks• The rock cycle• Rocks as resources	Assignment Investigation TEST
	6 – 9	<i>Physical Science</i> <ul style="list-style-type: none">• Types of energy• Kinetic and potential energy• Energy transfer• Energy transformation• Energy efficiency	Investigation TEST

Timeline and assessment items may be subject to change.