



WAGIN DISTRICT HIGH SCHOOL SEMESTER 1 OUTLINE

Year 7 Science 2018

COURSE OUTLINE

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

Students will start Term 1 by discovering the secondary Science laboratory through a series of transition lessons designed to introduce them to the range of equipment and skills required for success in this subject. Students will then turn their attention to Chemical Science for the remainder of Term 1. Specifically they will be studying mixtures and solutions, and the variety of methods for their separation.

During Term 2 students will start by looking at Physical Science, investigating the role of forces in the instigation of movement, and also the concept of gravity. The second half of Term 3 will see a shift in the content covered to focus on Earth and Space Sciences, and this will be continued and reported on, during second semester.

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

- Mixtures, including solutions, contain a combination of pure substances that can be separated using a range of techniques (ACSSU113)

Physical Sciences

- Change to an object's motion is caused by unbalanced forces, including Earth's gravitational attraction, acting on the object (ACSSU117)

Earth and Space Sciences

- Predictable phenomena on Earth, including seasons and eclipses, are caused by the relative positions of the sun, Earth and the moon (ACSSU115)

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 (ACSHE119)
- Science knowledge can develop through collaboration across the disciplines of science and the contributions of people from a range of cultures (ACSHE223)

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 (ACSHE120)
- People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity (ACSHE121)

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 – 5	<p style="text-align: center;"><i>Laboratory Skills</i></p> <ul style="list-style-type: none"> • Branches of science • Safety in the Science lab & science rules • Scientific equipment • Science skills • Making observations • Predictions vs inferences • Fair testing • Analysing experimental results • The Science Inquiry process 	TEST
	6 – 11	<p style="text-align: center;"><i>Chemical Science</i></p> <ul style="list-style-type: none"> • Mixtures and solutions • Solubility • Factors affecting solubility • Separation techniques – insoluble substances • Separation techniques – soluble substances 	Assignment Investigation TEST
Term 2	1 – 5	<p style="text-align: center;"><i>Physical Science</i></p> <ul style="list-style-type: none"> • Forces • Balanced vs unbalanced forces • Contact forces • Friction • Non-contact forces • Gravity 	Assignment Investigation TEST
	6 – 9	<p style="text-align: center;"><i>Earth & Space Science</i></p> <ul style="list-style-type: none"> • The Earth, Sun and moon • Rotation & revolution • Solar & lunar eclipses • Seasons • Moon phases • Tides 	TEST

Timeline and assessment items may be subject to change.