



WAGIN DISTRICT HIGH SCHOOL SEMESTER 1 OUTLINE

Year 7 Science 2017

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 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 changes as new evidence becomes available, and some scientific discoveries have significantly changed people's understanding of the world (ACSHE119)
- Science knowledge can develop through collaboration and connecting ideas across the disciplines of science (ACSHE223)

Use and Influence of Science

- Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)
- Science understanding influences the development of practices in areas of human activity such as industry, agriculture and marine and terrestrial resource management (ACSHE121)
- People use understanding and skills from across the disciplines of science in their occupations (ACSHE224)

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

TASKS

Students will complete a number of formal and informal assessment items over the semester, including investigations, assignments, and tests. Each investigation and assignment will come with a task sheet detailing exactly what is required of the student.

Tests will be conducted after a minimum of 1 class lesson of revision, though further revision is expected to be completed at home on a regular basis, and in preparation for tests.

ASSESSMENT BREAKDOWN

CONTENT AREA	TASK	WEIGHTING
Chemical Science	Investigation work	25%
	Assignments	25%
	Tests & Quizzes	50%
		Total = 100%
Physical Science	Investigation work	25%
	Assignments	25%
	Tests & Quizzes	50%
		Total = 100%
Science Inquiry Skills	Investigation work	100%

TIME LINE

The following timeline can be used as a guide to the sequence and timing of activities over the semester, though changes may be made at the discretion of the teacher.

WEEK	ACTIVITY	TASK DUE/HOMEWORK
1	The wonderful world of Science!	TEST 1
2	Introducing the Science lab	
3	Experimenting	
4	Scientific method	
5	Revision and test	
6	Mixtures and solutions	Investigation 1 Assignment 1 TEST 2
7	Solubility Investigation	
8	Separation techniques	
9	Separation techniques	
10	Revision and test	
11	Forces	Assignment 2 Investigation 2 TEST 3
12	Balanced and unbalanced forces	
13	Friction	
14	Friction	
15	Revision and test	
16	Gravity	TEST (included in second semester)
17	The Sun, Earth and moon Rotation and revolution	
18	Solar and lunar eclipses	
19	Seasons and moon phases	
20	Revision and test	