



Newton Moore Senior High School  
Science  
Year 10 Science  
2016



## Course Description

### Science Inquiry Skills

Science inquiry involves identifying and posing questions; planning, conducting and reflecting on investigations; processing, analysing and interpreting evidence; and communicating findings. This strand is concerned with evaluating claims, investigating ideas, solving problems, drawing valid conclusions and developing evidence-based arguments and is carried out over the entire year within the Science Understanding sub-strands.

### Science as a Human Endeavour

Through science, humans seek to improve their understanding and explanations of the natural world. Science influences society by posing and responding to social and ethical questions, and scientific research is itself influenced by the needs and priorities of society. This strand highlights the development of science as a unique way of knowing and doing, and the role of science in contemporary decision making and problem solving. It acknowledges that in making decisions about science practices and applications, ethical and social implications must be taken into account. It is carried out over the entire year within the Science Understanding sub-strands.

### Science Understanding

The core content of science includes Earth and Space Sciences, Physical Sciences, Biological Sciences and Chemical Sciences.

#### *Earth and space sciences*

Students focus on the universe and identifying that it contains features including galaxies, stars and solar systems and the Big Bang theory can be used to explain the origin of the universe. Focusing on the earth they will be shown how global systems, including the carbon cycle, rely on interactions involving the biosphere, lithosphere, hydrosphere and atmosphere.

#### *Physical sciences*

Students will learn that energy conservation in a system can be explained by describing energy transfers and transformations. This will lead to the understanding that the motion of objects can be described and predicted using the laws of physics.

#### *Biological sciences*

Students will gather an understanding that transmission of heritable characteristics from one generation to the next involves DNA and genes. The theory of evolution by natural selection explains the diversity of living things and is supported by a range of scientific evidence which will be presented to the students.

#### *Chemical sciences*

The atomic structure and properties of elements which are used to organise them in the Periodic Table is the focus of this sub-strand. Different types of chemical reactions are used to produce a range of products and can occur at different rates will be demonstrated through a range of activities and chemistry content.

## Assessment Outline

Assessment Task	TEACHER	Date Due	Student score	Max Score	% Weight
<b>SEMESTER 1</b>					
..  Biology					
Task 1 Biology Inquiry	Biological Sciences, Science Inquiry Skills	Term1 Week 6		100	5
Task 2 Biology Test	Biological Sciences, Science Inquiry Skills, Science as a Human Endeavour	Term 1 Week 9		100	20
Science Inquiry					
Task 3 Chemistry Inquiry	Science Inquiry Skills, Chemical Sciences	Term 2 Week 3		100	2.5
Exam Semester 1					
Task 4 Exam Semester 1	Chemical Sciences, Biological Sciences, Science Inquiry Skills	Term 2 Week 5/6		100	2.5
<b>SEMESTER 2</b>					
Chemistry					
Task 5 Chemistry Test	Chemical Sciences ,Science Inquiry Skills, Science as a Human Endeavour	Term 3 Week 2		100	20
Science Inquiry					
Task 6 Student Investigation	Science Inquiry Skills	Term 3 Week 3		100	8
Physics					
Task 7 Physics Inquiry	Physical Sciences ,Science Inquiry Skills	Term 3 Week 9		100	5
Task 8 Physics Test	Physical Sciences ,Science Inquiry Skills, Science as a Human Endeavour	Term 4 Week 2		100	20
Exam					
Task 9 Exam Semester 2	Chemical Sciences Physical Sciences , Earth and Space Sciences, Biological Sciences, Science Inquiry Skills, Science as a Human Endeavour	Term 4 Week 6		100	12
Earth and Space					
Task 10 Earth and Space Inquiry	Earth and Space, Science as a Human Endeavour	Term 4 Week 7		100	5
Semester 1 % Total Weight 16 weeks					30.0
Semester 2 % Total Weight 24 weeks					70.0
<b>Total Weight</b>					<b>100.0</b>

The above weightings are intended to show the importance of each task. The allocation of a grade at the end of a semester is determined based on grade related descriptors issued by School Curriculum and Standards Authority.