Science Semester Outline

Year 9 Semester 2 2013
Teachers: Comans & Willis

Student equipment requirements: 128 page exercise book, blue and red pen, pencil, ruler, eraser.

Learning Outcomes

After studying the work in these topics, you should be able to:

**Biological Science**
- Explain the structure and function of the excretory, nervous and endocrine systems
- Explain the causes, symptoms and treatments of various infectious and non-infectious diseases
- Identify the interactions between the various producers and consumers within an environment
- Explore the effects of factors such as seasons, natural disasters and human impacts on an ecosystem and its various populations of species.

**Earth and Space Sciences**
- Assess the scientific evidence for the theory of plate tectonics
- Identify the location of the tectonic plates on a world map
- Relate the movement of tectonic plates to convection currents in the mantle
- Relate earthquakes, volcanoes and tsunamis to movements at plate boundaries
- Assess the stability of the Australian continent and its neighbours
- Explore the implications of living on the Pacific ring of fire

**Science Inquiry Skills:**
- Demonstrate questioning and predicting skills
- Plan and conduct experiments
- Process and analyse data and information
- Evaluate and communicate scientific findings

**Science as a human endeavour:**
- Explore the nature and development of Science
- Investigate the uses and influence Science

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>Weighting</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>10%</td>
<td>Ongoing</td>
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<tr>
<td>Dissection Practical Task</td>
<td>10%</td>
<td>Term 3- Week 3</td>
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<tr>
<td>Disease Research Assignment</td>
<td>20%</td>
<td>Term 3 – Week 7</td>
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<tr>
<td>Biology Unit Exam</td>
<td>15%</td>
<td>Term 3- Week 9</td>
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<tr>
<td>Ecology Booklet</td>
<td>10%</td>
<td>Term 4- Week 2</td>
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<tr>
<td>Lake Tuggeranong Investigation</td>
<td>20%</td>
<td>Term 4 – Week 3</td>
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<tr>
<td>Natural Disaster Research task</td>
<td>15%</td>
<td>Term 4- Week 4</td>
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ACT schools are in a transition phase moving from using an ACT Curriculum to the Australian Curriculum. Accordingly, your child’s achievement is now being assessed and reported using the Australian Curriculum achievement standards.

**Year 9 Achievement standard**

By the end of year 9, students explain chemical processes and natural radioactivity in terms of atoms and energy transfers and describe examples of important chemical reactions. They describe models of energy transfer and apply these to explain phermonoma. They explain global features and events in terms of geological processes and timescales. They analyse how biological systems function and respond to external changes with references to interdependencies, energy transfers and flow of matter. They describe social and technological factors that have influenced scientific developments and predict how future applications of science and technology may affect people’s lives.

Students design questions that can be investigated using a range of inquiry skills. They design methods that include the control and accurate measurement of variables and systematic collection of data and describe how they considered ethics and safety. They analyse trends in data, identifying relationships between variables and reveal inconsistencies in results. They analyse their methods and the quality of their data, and explain specific actions to improve the quality of their evidence. They evaluate other’s methods and explanations from a scientific perspective and use appropriate language and representations when communicating their findings and ideas to specific audiences.

**Late policy**

Assessment items submitted late will incur a penalty of 5% of the total marks for the item for each day late. Students seeking extensions of due dates should see their teacher before due date.

**Homework and Assignments**

Wanniassa School regards h/w as an essential part of learning. Completion of homework tasks by the due date is necessary to ensure a satisfactory grade.

**Plagiarism**

Plagiarism is a form of cheating. Failure to acknowledge sources may result in work not being marked.

*I have read this unit outline and have noted the requirements for the course.*

Student’s Signature: .................................................................

Parent/Guardian’s Signature: .......................................................