Science Semester Outline

Year 8 Semester 2 2013
Teachers: Gillingham & Willis

Topics

Biological Science  – Cells and Organ Systems
Earth Science  - Rocks and minerals

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

Learning Outcomes

Biological Sciences:
• Cells are the basic units of living things and have specialised structures and functions
• Multicellular organisms contain systems of organs that carry out specialised functions that enable them to survive and reproduce
• There are differences between plant, animal and fungal cells and the structure and functions of cells and their parts
• The structure and function or organs in the respiratory, digestive and reproductive systems of different organisms affect bodily function

Science as a human endeavour:
• Explore the nature and development of Science

• Investigate the uses and influence Science

Earth & Spaces Sciences:
• Sedimentary, igneous and metamorphic rocks contain minerals
• Rocks are formed by processes that occur within Earth over a variety of timescales

Science Inquiry Skills:
• Demonstrate questioning and predicting skills
• Plan and conduct experiments
• Process and analyse data and information
• Evaluate and communicate scientific finding

Assessment Item | Weighting | Due Date |
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Class Participation | 10% | Ongoing |
Cell practical assessment | 10% | Term 3- week3 |
Heart Dissection | 10% | Term 3- Week 5 |
Biology Research project | 15% | Term 3 – Week 7 |
Biology Unit Exam | 15% | Term 3- Week 10 |
Geology information booklet | 15% | Term 4- ongoing |
Mining Research Task | 15% | Term 4- Week 4 |
Geology Unit Exam | 10 % | Term 4- Week 6 |
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 8 Achievement standard**
By the end of Year 8, students compare physical and chemical changes and use the particle model to explain and predict the properties and behaviours of substances. They identify different forms of energy and describe how energy transfers and transformations cause change in simple systems. They compare processes of rock formation, including the time scales involved. They analyse the relationship between structure and function at cell, organ and body system levels. Students examine the different science knowledge used in occupations. They explain how evidence has led to an improved understanding of a scientific idea and describe situations in which scientists collaborated to generate solutions to contemporary problems. Students identify and construct questions and problems that they can investigate scientifically. They consider safety and ethics when planning investigations, including designing field or experimental methods. They identify variables to be changed, measured and controlled. Students construct representations of their data to reveal and analyse patterns and trends, and use these when justifying their conclusions. They explain how modifications to methods could improve the quality of their data and apply their own scientific knowledge and investigation findings to evaluate claims made by others. They use appropriate language and representations to communicate science ideas, methods and findings in a range of text types.

**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: .......................................................................