



## AVONSIDE GIRLS' HIGH SCHOOL

LEVEL 3 BIOLOGY (BIO 333)      2009

### **COURSE AIMS:**

1. To develop an awareness of the role and responsibility of humans in the biosphere, and an appreciation of the relevance of biology for informed decision-making
2. To provide students with a knowledge of appropriate biological facts, in order to develop their understanding of important concepts and principles of Biology.
3. To guide students in the application of scientific methods in the solving of problems of biology, in the communication of biological ideas and to develop a critical approach to the presentation and evaluation of evidence.

### **CONTENT OF THE COURSE:**

See Write-on notes for details of each topic. The topics covered are

1. A study of the tree lupin
2. Animal behaviour and plant responses
3. Molecular and mendelian genetics
4. Biotechnology
5. Patterns of evolution
6. Human evolution

### **ASSESSMENT DETAILS: NCEA LEVEL 3**

Your recording sheet has details of assessment names, numbers, types and times.

### **FURTHER ASSESSMENT OPPORTUNITIES**

There is no opportunity to resit AS90713. One resit of AS90718 will be provided.

### **APPEAL PROCEDURES**

Any queries about marking decisions should be made to your class teacher when work is handed back. Any formal appeals should be made within a school week of the results being received to the Head of Biology, Mrs Rid. Any dispute over the grade will be investigated by Mrs Rid or the Principal's nominee, Ms Lynch in term 1 or Mrs Butler in terms 2-4.

Work containing "white-out" corrections or written in pencil will not be reconsidered.

### **SCHOLARSHIP INFORMATION**

Academically able students should consider sitting Scholarship at the end of the year. You need to have

1. a very good biological knowledge of contemporary biological issues, gene expression, speciation and evolution, biotechnology, human evolution, plant and animal structure, function and behaviour, and cells. This requires a detailed knowledge of Levels 2 and 3 Biology.
2. a wide general knowledge, and the ability to analyse biological situations and integrate ideas into coherent responses.
3. the ability to write quickly and in detail.

If you are interested in sitting Scholarship, let Mrs Rid know. Tutorials will be held at regular intervals, and you will be set extra reading.

**BIOLOGY 333  
COURSE OUTLINE, 2009**

<b>ASSESSMENT EVENTS AND DATES</b>	<b>TOPIC DATES</b>	<b>TOPIC AND ACHIEVEMENT OBJECTIVES</b>	<b>CREDITS</b>	<b>MY RESULT</b>
<p>Internal achievement standard 3.1B (AS90713) Version 2 <i>Carry out a practical investigation into an aspect of an organism's ecological niche with guidance.</i></p> <p>Duration – field work (Term 1) plus most of Term 2</p>	<p>February 19–June 19</p>	<p style="text-align: center;"><b>Scientific Method and Plant Study</b></p> <p style="text-align: center;"><b>Carry out an investigation into the tree lupin's ecological niche.</b></p>	<p style="text-align: center;">4</p>	
<p>External achievement standard 3.4 (AS90716) Version 2 <i>Describe animal behaviour and plant responses in relation to environmental factors</i></p> <p>End of topic test (1 period) on animals March 16-20 End of topic test on plants May 25-29</p>	<p>Animals - February 9 – March 13</p> <p>Plants – April 27-May 22</p>	<p style="text-align: center;"><b>Animal Behaviour and Plant Responses</b></p> <p style="text-align: center;"><b>Investigate concepts and processes relating animal behaviour and plant responses to environmental factors</b></p>	<p style="text-align: center;">4</p>	
<p>External achievement standard 3.3 (AS90715) Version 2 <i>Describe the role of DNA in relation to gene expression</i></p> <p>End of topic test (1 period) on Molecular April 27-May 1 End of topic test (1 period) on Mendelian June 29-July 3</p>	<p>Molecular – March 16-April 9 Mendelian – May 25-July 3</p>	<p style="text-align: center;"><b>Molecular and Mendelian genetics</b></p> <p style="text-align: center;"><b>Investigate concepts and processes relating to gene expression</b></p>	<p style="text-align: center;">4</p>	
<p>Internal achievement standard 3.6 (AS90718) Version 2 <i>Describe applications of biotechnological techniques</i></p> <p>End of topic test (1 period) August 17-21 One resit will be provided in Week 10 Sept 21-25</p>	<p>July 20 – August 14</p>	<p style="text-align: center;"><b>Biotechnology</b></p> <p style="text-align: center;"><b>Investigate modern biotechnological techniques and understand the applications of these to meet human needs and demands</b></p>	<p style="text-align: center;">3</p>	

<p>External achievement standard 3.5 (AS90717) Version 2 <i>Describe processes and patterns of evolution</i></p> <p>End of topic test (1 period) September 14-18</p>	<p>August 17 – Sept 18</p>	<p><b>Patterns of Evolution</b></p> <p><b>Investigate patterns of evolution of species, with focus on New Zealand examples</b></p>	<p>3</p>	
<p>School examination 2 hours</p>	<p>August 24 – August 28</p>	<p><b>School examination</b></p>		
<p>External achievement standard 3.7 (AS90719) Version 2 <i>Describe trends in human evolution</i></p> <p>End of topic test (1 period) November 2-6</p>	<p>September 21- Nov 6</p>	<p><b>Human Evolution</b></p> <p><b>Investigate trends in human biological and cultural evolution, and examine hominids and their closest relatives</b></p>	<p>3</p>	