Year 9 Australian Curriculum Mathematics – Extension
Teacher: Karen Brown

Course Description
This mathematical course aims to promote a positive attitude to mathematics and its relevance as well as a sound understanding of mathematics and its processes. Topics covered include: real numbers, patterns and algebra, measurement, and linear and non-linear relationships.

Learning Outcomes
Solve problems involving direct proportion and rates using graphs and equations
Apply index laws to numerical expressions
Apply index laws to algebraic expressions
Express numbers in scientific notation
Expand algebraic expressions and collect like terms
Calculate the areas of composite shapes
Calculate and solve problems involving surface area and volume using a variety of shapes
Find the distance between two points, mid point and gradient of a line segment
Sketch linear graphs using co-ordinates of two points and sketch non-linear relationships
Demonstrates an understanding of literacy in mathematics

Work Practice Outcomes
Cooperates with teacher and other students
Exhibits a self-disciplined approach to work
Completes set homework
Completes set class work

Materials Required
Calculator, writing materials (pens, pencils etc), ruler, eraser and an exercise book

Typical Homework
Homework will be set on: <www.mymathsonline.com.au>
All students will have their own unique logon and password to access specific tasks. Students who have difficulty accessing the internet may use the computers in the library, or attend tutorials every Thursday at long break. Homework may also include topic investigations as well as completion and revision of classwork.

<table>
<thead>
<tr>
<th>Assessment Items</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common test</td>
<td>Week 6</td>
</tr>
<tr>
<td>Common test</td>
<td>Week 10</td>
</tr>
<tr>
<td>In Class assessment</td>
<td>Week 15</td>
</tr>
<tr>
<td>In Class assessment</td>
<td>Week 18</td>
</tr>
<tr>
<td>Homework</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>