Maths Semester Outline

Year 10 Semester 2, 2013
Teachers: Phillip Lewington, David Green

Topics

In Mathematics this semester, your child will study Pythagoras and Trigonometry, Units of Measurement, Geometric Reasoning, Chance and Data Representation. They will work towards the achievements outlined in the Australian Curriculum and will focus on the application of Mathematics in their everyday life.

Student equipment requirements: Scientific calculator, 2 x A4 exercise book, blue and red pens, pencil, ruler, eraser, maths set (including a compass) and colour pencils.

Learning Outcomes

After studying the work in this topic, your child should be able to:

- Use Pythagoras' theorem to solve everyday problems.
- Solve problems involving the area and volume of prisms, cylinders and composite solids
- Solve problems involving the transformation of shapes
- Represent probabilities in different forms and calculate outcomes of various situations
- Collect and interpret data
- Use mathematical language and skills to solve problems

Assessment Item Weighting Due Date
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Assignments 30% Week 7, Week 14
Tests 40% Week 8, Week 15
In-class assessment 20% Ongoing
Homework/Mathletics 10% Ongoing

Year 10 Achievement Standard

By the end of Year 10, students recognise the connection between simple and compound interest. They solve problems involving linear equations and inequalities. They make the connections between algebraic and graphical representations of relations. Students solve surface area and volume problems relating to composite solids. They recognise the relationships between parallel and perpendicular lines. Students apply deductive reasoning to proofs and numerical exercises involving plane shapes. They compare data sets by referring to the shapes of the various data displays. They describe bivariate data where the independent variable is time. Students describe statistical relationships between two continuous variables. They evaluate statistical reports. Students expand binomial expressions and factorise monic quadratic expressions. They find unknown values after substitution into formulas. They perform the four operations with simple algebraic fractions. Students solve simple quadratic equations and pairs of simultaneous equations. They use triangle and angle properties to prove congruence and similarity. Students use trigonometry to calculate unknown angles in right-angled triangles. Students list outcomes for multi-step chance experiments and assign probabilities for these experiments. They calculate quartiles and inter-quartile ranges.
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.

Wanniassa School Values

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<thead>
<tr>
<th>VALUES</th>
<th>Responsibility</th>
<th>Respect</th>
<th>Hard Work</th>
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<tbody>
<tr>
<td>Taking charge of our own actions and caring about what is important</td>
<td>Being aware of other people, their property and their learning</td>
<td>Always trying our best and being involved in learning</td>
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<thead>
<tr>
<th>BEHAVIOUR</th>
<th>I am always quiet when someone else is talking</th>
<th>I treat others the way I want to be treated</th>
<th>I try my best</th>
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<tbody>
<tr>
<td>I take responsibility for my own learning and behaviour</td>
<td>I respect all students and teachers</td>
<td>I try hard in all my classes</td>
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<td>I ask questions when I don’t understand</td>
<td>I don’t talk about people behind their back</td>
<td>I participate in all group activities</td>
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<td>I am honest</td>
<td>I listen carefully when others speak</td>
<td>I meet my deadlines</td>
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<td>I care about people, their property and learning</td>
<td>I have a positive attitude towards work</td>
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<td>I accept everyone for who they are</td>
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<td>I am nice to people</td>
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I have read this unit outline and have noted the requirements for the course.

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

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

Parent/Guardian’s Email address: .................................................................