**Course Description:**
This unit incorporates the Western Australian Curriculum Mathematic content strands of *Number and Algebra*, *Measurement* and *Statistics and Probability*. The main focus of this unit is applying the distributive law to the expansion of algebraic expressions, data representation and interpretation and finding the volume of cylinders and right prisms.

**Course Outcomes:**
By the end of this unit you should be able to:
- Construct back-to-back Stem-and-leaf plots and histograms
- Construct tree diagrams
- Assign probabilities
- Expand algebraic expressions
- Collect like terms and simplify an algebraic expression
- Find the volume of a cylinder and right prism

**Course Organisation:**
Student’s activities will include:
- Student based investigations to discover rules, laws and concepts
- Hands-on/real life activities wherever possible
- Teacher directed instruction and explanation combined with student practise of a new skill
- Group and partner work to consolidate learning
- Using technologies to investigate, solve and present problems and skills

**Course Timeline:**

<table>
<thead>
<tr>
<th>Wk</th>
<th>Activity</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td><strong>Measurement and Geometry</strong></td>
<td><strong>Measurement Test Tues 3rd May</strong></td>
</tr>
</tbody>
</table>
|    | - Measure and calculate perimeter and area of polygons and other 2D shapes.  
  |    | - Revise units of length conversions. Use metric prefixes eg., kilogram (kg) |
| 3-4| **Statistics and Probability**       | In class work               |
|    | - List all outcomes for two-step chance experiments using tree diagrams   
  |    | - Construct stem-and-leaf plots and histograms                            
  |    | - Describe spread of data                                                 
  |    | - Assign probabilities for a given situation                              |
| 5  | **Number and Algebra**               | **Algebra Test Mon 30th May** |
|    | - Review integers, indices, Scientific notation and index laws.           
  |    | - Collecting like terms                                                   
  |    | - Expanding brackets and simplifying                                       
  |    | - Solve equations involving brackets                                       
  |    | - Introduce expanding binomials                                           
  |    | - Distributive Law & Factorisation                                        |
6-7

Measurement
- compare angles directly and order them by size
- measure, draw and estimate angles in degrees
- classify angles as acute, right, obtuse, straight and reflex.
- Pythagoras intro

EXAMS
- Revise and prepare study notes for exams

Maths Exam Wed 1st June
(80 Min Working time)

8-10

Number
Time:
- estimate, measure, order and compare time using:
  standard units; 12- and 24-hour time; calculate elapsed time.

Personal Finances:
- budget for personal use: identify income and expenditure; make budget estimates; follow budgets for a period of time

Class investigation
Class assigned work

Week 9 Test on Time and Finances Tues 21st June

End of Semester Test
Tuesday wk 10 28th June

Course Vocabulary:
- Like terms
- Brackets
- Simplify
- Expand
- Binomial
- Equation
- Two-step
- Chance
- Tree diagram
- Spread
- Stem-and-leaf
- Data
- Histogram
- Net
- Prism
- cylinder
tree diagram
- probability
- Area
- Volume
- Budget
- Simple interest

- Assessment Outline -

Course Assessment:

<table>
<thead>
<tr>
<th>Wk</th>
<th>Assessment type</th>
<th>Weighting</th>
<th>Marks achieved</th>
<th>Your Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 9 &amp; 10</td>
<td>Tests</td>
<td>50%*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10</td>
<td>All homework pieces combined</td>
<td>10%*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10</td>
<td>Selected classroom work**</td>
<td>25%*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10</td>
<td>In class investigations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10</td>
<td>Classroom behaviour, attitude and contributions</td>
<td>15%*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*specific marks to be advised and are subject to change
** Students may not be told which piece of classroom work is to be collecting for marking until the activity is complete.
• Please note the Exam will make up 25% of the overall semester grade. Students will be allowed to take in 1 page, back and front, of notes into the exam.

Specific Equipment required for each lesson:
• File/book to write in
• Pens, ruler,
• Scientific calculator