

YEAR 9 MATHEMATICS

TERM 2

- Unit Outline -



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
- Describe data using terms such as 'skewed' and 'bi-modal'
- Expand algebraic expressions
- Collect like terms and simplify an algebraic expression
- Find the volume of a cylinder and right prism
- Construct tree diagrams
- Assign probabilities

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:

Wk	Activity	Assessment
1-2	Statistics and Probability <ul style="list-style-type: none">• List all outcomes for two-step chance experiments using tree diagrams• Problem solving strategies in preparation for NAPLAN	In class work
3-6	Number and Algebra <ul style="list-style-type: none">• Collecting like terms• Expanding brackets and simplifying• Solve equations involving brackets• Introduce expanding binomials	Class assigned work End of Semester Test wk 6
7-9	Measurement and Geometry <ul style="list-style-type: none">• Revise Area of shapes, including circle• Nets and properties of prisms• Volume of cylinder and right prisms	Open book Test end of week 9 Class investigation Class assigned work
10	Statistics and Probability <ul style="list-style-type: none">• Construct stem-and-leaf plots and histograms• Describe spread of data	Probability investigation

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

- Assessment Outline -

Course Assessment:

Wk	Assessment type	Weighting	Marks achieved	Your Total
6 & 9	Tests	50%*		
3-10	All homework pieces combined	10%*		
1-10	Selected classroom work** In class investigations	25%*		
1-10	Classroom behaviour, attitude and contributions	15%*		

**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.*

Specific Equipment required for each lesson:

- File/book to write in
- Pens, ruler,
- Scientific calculator