



Bowral High Mathematics Faculty

Course Information, Assessment & Reporting Year 8

Summary of Year 8 Mathematics – Stage 4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term 1	Fractions, Decimals & Percentages <i>Operates with fractions, decimals, percentages.</i>			Algebraic Expressions <i>Uses the algebraic symbol system to simplify, expand and factorise simple algebraic expressions.</i>			Perimeter, Area & Pythagoras <i>Uses formulae and Pythagoras' theorem in calculating perimeter and area of circles and figures composed of rectangles and triangles.</i>			
Term 2	Probability <i>Solves probability problems involving simple events.</i>			Linear Expressions <i>Graphs and interprets linear relationships on the number plane.</i>			Data Representation (Graphs) <i>Constructs, reads and interprets graphs, tables, charts and statistical information.</i>			
Term 3	Rates & Ratio <i>Operates with ratios and rates.</i>			Data Representation, Graphs, Analysis & Evaluation <i>Collects statistical data using either a census or a sample, and analyses data using measures of location and range.</i>			Surface Area & Volume <i>Calculates surface area of rectangular and triangular prisms and volume of right prisms and cylinders.</i>			
Term 4	Equations & Inequalities <i>Uses algebraic techniques to solve linear equations and simple inequalities.</i>			Congruence & Similar Figures <i>Classifies, constructs, and determines the properties of triangles and quadrilaterals. Identifies congruent and similar two-dimensional figures stating the relevant conditions.</i>			Enrichment, Extension, Remediation			

Note:

- All classes will follow the program shown above but the depth and scope of study in each class may vary. Students' pre-existing levels of knowledge, skills and applications will be assessed and relevant outcomes addressed in order to recognize and extend their confidence and skills in mathematics.

Assessment

Student achievement will be measured within individual classes and across the whole of Year 8.

- **Within Classes:** student progress in achieving designated outcomes will be assessed, on an ongoing basis, using a variety of tools including teacher observation, homework tasks, assignments, class participation, completion of set tasks and topic tests.
- **Across the whole of Year 8:** student performance relative to the whole of Year 8 will be assessed through their performance in **Major Semester Tests which will be held in week 5, Term 2 and week 5, Term 4**. These tests, along with teacher recommendations, will also be used in determining Mathematics classes for Year 9.

Reporting

A student progress report will be provided at the end of each semester. The report for each student will show:-

1. A Grade (A–E), indicating the student's relative performance across the whole of Year 8.

A – Outstanding Achievement; The student has an extensive knowledge and understanding of the content and can readily apply this knowledge. In addition, the student has achieved a very high level of competence in the processes and skills and can apply these skills to new situations.

B – High Achievement: The student has a thorough knowledge and understanding of the content and a high level of competence in the processes and skills. In addition, the student is able to apply this knowledge and these skills to most situations.

C – Sound Achievement: The student has a sound knowledge and understanding of the main areas of content and has achieved an adequate level of competence in the processes and skills.

D – Basic Achievement: The student has a basic knowledge and understanding of the content and has achieved a limited level of competence in the processes and skills.

E – Limited Achievement: The student has an elementary knowledge and understanding in few areas of the content and has achieved very limited competence in some of the processes and skills.

U - Fails to meet course requirements in Y8

2. Grades indicating the level of achievement in each area studied during the semester. These Grades will be based on the individual student's achievement in their class. The areas of assessment in Year 8 are:-

Year 8 – Semester 1

- Operates with fractions, decimals and percentages
- Simplifies, expands and factorises simple algebraic expressions
- Uses formulae and Pythagoras' Theorem to calculate perimeter and area of circles and figures composed of triangles and squares

- Solves probability problems involving simple events
- Graphs and interprets straight line relationships on the number plane

Year 8 – Semester 2

- Constructing and interpreting graphs, tables and charts
- Operating with rates and ratios
- Collecting and analysing statistical data using mean, median, mode and range
- Calculating the surface area, volume and capacity of prisms and cylinders
- Solving equations and simple inequations

The grades will be: Outstanding, High, Sound, Basic, Limited, U (fails to meet course requirements in Y8), **n/a** (If the student was not at BHS for this work)

3. A personal profile for responsible learning, using the categories; Always, Usually, Sometimes, Rarely.

- Brings required equipment to class / is prepared
- Listens attentively and follows instructions
- Participates positively in class and discussions
- Interacts positively with teachers and students
- Works independently and is self motivated
- Meets homework/assignment deadlines

Special Notes

- **Homework** will be given on a regular basis and its completion and follow-up is considered to play an important part in building student confidence and skills in Mathematics.
- **Calculators** and their effective use are an important part of the Year 8 Mathematics Course. However, the classroom teacher will determine their appropriate use in the classroom. Students need to be able to complete calculations with and without calculators. We strongly recommend you purchase a calculator through the Finance Office at Bowral High where we sell an approved calculator **at cost price**. This calculator is suitable for use through to Year 12 and beyond. Calculators purchased elsewhere may not have the required features.
- **Calculators may not be used in across the form tests in Year 8 but are required for part of the NAPLAN test in Year 9.**
- **Geometry Equipment:** All students are expected to have a set of geometrical instruments consisting of a pair of compasses, a protractor, a setsquare, a ruler and a pencil. At the moment a geometry set is offered free as a bonus item with the purchase of a calculator through the Finance Office (see above).

- **Work Books:** We recommend students purchase a 240 page, 5mm Grid Book for use in Mathematics. Loose-leaf folders are not permitted in junior Mathematics.
- If, at any time, you would like to discuss your child's progress in Mathematics you may contact their Mathematics Teacher or Mr Reynolds, on 48612255.

M. Reynolds - Head Teacher Mathematics