



WAGIN DISTRICT HIGH SCHOOL

SEMESTER 2, 2025 OUTLINE

Year 7 - Mathematics

COURSE OUTLINE

Students in semester 2 will build on their understanding of number operations and move into numerical and spatial patterns. They will learn how to find rules in the patterns around us and apply those rules to different expressions and situations. They will move into revised area and perimeter of geometric shapes and apply this knowledge to finding the volume of 3D objects as well as drawing 3D objects. Fractions, Decimals and percentages will be revised with focus on understanding the financial concepts of best buys. In term four we will focus on building on our knowledge of algebraic expressions and number operations with collecting and multiplying like terms, substitution and solving simple linear equations. We will complete the year with statistics and probability, with students learning how to determine the probability of events occurring.

COURSE OUTCOMES

In Term 3 we will focus on these topics:

Number and algebra

- (1) Multiply and divide fractions and decimals.* (cont')
- (2) Round decimals to a specified number of decimal places.
- (3) Connect fractions, decimals and percentages and carry out simple conversions.
- (4) Find percentages of quantities and express one quantity as a percentage of another.
- (5) Investigate and calculate 'best buys'.

Measurement and geometry

- (1) Establish the formulas for areas of rectangles, triangles and parallelograms and use these in problem solving.
- (2) Calculate volumes of rectangular prisms
- (3) Draw different views of prisms and solids formed from combinations of prisms.
- (4) Describe translations, reflections in an axis, and rotations of multiples of 90° on the Cartesian plane.
- (5) Identify line and rotational symmetries.

In Term 4 we will focus on these topics:

Number and algebra

- (1) Introduce the concept of variables as a way of representing numbers using letters.
- (2) Create algebraic expressions and evaluate them by substituting a given value for each variable.
- (3) Extend and apply the laws and properties of arithmetic to algebraic terms and expressions.
- (4) Given coordinates, plot points on the Cartesian plane.
- (5) Find coordinates for a given point.
- (6) Solve simple linear equations.
- (7) Investigate, interpret and analyse graphs from data.

Statistics and probability

- (1) Identify and investigate issues involving numerical data collected from primary and secondary sources.
- (2) Construct and compare a range of data displays including stem-and-leaf plots and dot plots.
- (3) Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data.
- (4) Describe and interpret data displays using median, mean and range.

TASKS & ASSESSMENT

Students will generally undertake work in blocks of 3-5 weeks. During this time, they will be expected to complete several short quizzes, and an end of unit test. Students may also be required to complete assignments and/or investigations to help develop their understanding of the concepts covered.

All work samples, both formal and informal, will then be used to determine the ability and grade of each student.

	WEEK	KEY CONCEPTS	ASSESSMENTS
Term 3	1 – 5	<p><i>Number & Algebra</i></p> <ul style="list-style-type: none"> Fractions, Percentages and Decimals-working between the three Rounding Decimals Finding Percentages of quantities Best Buys 	<p>Times tables/Number operations Quizzes x1 (5% each)</p> <p>Fractions Assessment (10%)</p> <p>Fractions, decimals & Percentages Test (10%)</p> <p>Best Buys Assignment (5%)</p>
	6-10	<p><i>Measurement and Geometry</i></p> <ul style="list-style-type: none"> Finding Area of 2D polygons Calculate Volume of 3D shapes Drawing alternative views of prisms and 3D shapes Translations, reflections and rotations over a cartesian plane Symmetry 	<p>Times tables/Number operations Quizzes x2 (5% each)</p> <p>Geometry Assignment (10%)</p> <p>End of Unit Test (15%)</p>
Term 4	1 – 5	<p><i>Number and Algebra</i></p> <ul style="list-style-type: none"> Algebra-letters as variables, problem solving Algebraic expressions and substitution Solving Simple Linea Equations Using a Cartesian Plane to find coordinates 	<p>Times tables/Number operations quizzes x 2 (5%)</p> <p>Algebra Test (15%)</p>
	6 – 10	<p><i>Statistics and Probability</i></p> <ul style="list-style-type: none"> Interpret Data Collect and display data Calculate mean, median, mode and range of data sets Construct and compare data from a variety of diagrams and data sets 	<p>Times tables/Number operations quizzes x 1 (5%)</p> <p>Statistics Assignment (10%)</p>

Timeline and assessment items may be subject to change.