



# WAGIN DISTRICT HIGH SCHOOL

## Semester 2, 2025 OUTLINE

### Year 9-10 – Mathematics

#### COURSE OUTLINE

The proficiency strands understanding, fluency, problem-solving and reasoning are an integral part of mathematics content across the two content strands: measurement and geometry, and numbers and algebra. The proficiencies reinforce the significance of working mathematically within the content and describe how the content is explored or developed. They provide the language to build in the developmental aspects of the learning of mathematics. The achievement standards reflect the content and encompass the proficiencies.

#### COURSE OUTCOMES

##### Numbers and Algebra

Solve problems involving direct [proportion](#). Explore the relationship between graphs and equations corresponding to simple [rate](#) problems ([ACMNA208](#))

Apply [index](#) laws to numerical expressions with [integer](#) indices ([ACMNA209](#))

Solve problems involving [simple interest](#) ([ACMNA211](#))

Sketch linear graphs using the coordinates of two points and solve linear equations ([ACMNA215](#))

Graph simple non-linear relations with and without the use of digital technologies and solve simple related equations ([ACMNA296](#))

##### Measurement and Geometry

Investigate Pythagoras' Theorem and its application to solving simple problems involving right-angled triangles ([ACMMG222](#))

Use [similarity](#) to investigate the constancy of the [sine](#), [cosine](#) and [tangent](#) ratios for a given [angle](#) in right-angled triangles ([ACMMG223](#))

Apply trigonometry to solve right-angled triangle problems ([ACMMG224](#))

#### TASKS & ASSESSMENT

Students will generally undertake work in blocks of 5 weeks. During this time, they will be expected to complete all required class work and homework, and this will then be assessed in an end of unit test. Students may also be asked to complete quizzes, assignments and/or investigations to help develop their understanding of the concepts covered. *While the key content will be taught at school, it is essential that students revise at home on a regular basis to help practice new skills and solidify their understanding. Homework will count 10% towards student's overall grade.*

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

## TIMELINE

	WEEK	KEY CONCEPTS	ASSESSMENTS
Term 3	1 – 4	<b><i>Numbers and Algebra-patterns and algebra</i></b> <ul style="list-style-type: none"> <li>Algebraic expansion and simplification</li> <li>Algebraic factorisation</li> <li>Money and financial Math-simple interest</li> </ul>	Assignment Investigation (10%) TEST (10%)
	6 – 10	<b><i>Numbers and Algebra- linear and non-linear relationships</i></b> <ul style="list-style-type: none"> <li><i>Linear relationships</i></li> <li><i>Liner equations</i></li> <li><i>Direct proportion</i></li> </ul>	Assignment (15%) TEST (10%)
Term 4	1-5	<b><i>Measurement and Geometry</i></b> <ul style="list-style-type: none"> <li><i>Trigonometry</i></li> <li><i>Direct Proportion</i></li> </ul>	Assignment (10%) TEST (10%)
	6-10	<b><i>Numbers and Algebra- linear and non-linear relationships</i></b> <ul style="list-style-type: none"> <li><i>Non-linear equations</i></li> <li><i>Non-linear relationships</i></li> </ul>	Assignment (15%) TEST (10%)

Timeline and assessment items may be subject to change.