



Belconnen High School

COURSE OUTLINE Semester 2, 2026

Course Title: **8 Mathematics PEP**

Faculty: **Mathematics**

Faculty Head: Abhinay Chand

Description of Course

This semester, students apply measurement skills to calculate perimeter, area, and volume, including working with composite shapes and circles. They use Pythagoras' theorem to solve measurement problems, and figure out time zone problems. Students explore properties of shapes, test for similarity and congruency, and solve problems involving quadrilaterals. In statistics, they conduct investigations, analyse data distributions, and compare samples using measures such as mean and range. In probability, students use tables, diagrams, and determine related probabilities to solve practical problems.

Learning Outcomes

- Adopts text structures to organise, develop and link ideas when writing and creating
- Uses appropriate metric units when solving measurement problems involving the perimeter and area of composite shapes, and volume of right prisms
- Uses Pythagoras' theorem to solve measurement problems involving unknown lengths of right-angle triangles
- Uses formulas to solve problems involving the area and circumference of circles
- Solves problems of duration involving 12- and 24-hour cycles across multiple time zones
- Identifies conditions for congruency and similarity in shapes and creates and tests algorithms designed to test for congruency and similarity
- Applies the properties of quadrilaterals to solve problems
- Analyses and describes the distribution of data
- Compares the variation in distributions of random samples of the same and different size from a given population with respect to shape, measures of central tendency and range
- Represents the possible combinations of 2 events with tables and diagrams, and determines related probabilities to solve practical problems
- Conducts experiments and simulations using digital tools to determine related probabilities of compound events

Materials Required

Students will have access to a Google Classroom where class tasks and assessment items will be displayed, therefore a device is required. The assessment dates for this subject will appear on the students' Google calendar. Students can refer to the BHS Study Skills Guide and the BHS website for assistance with assessment tasks. The Assessment and Reporting Policy is available on the school website.

Items Required

Chromebook or suitable device, a notebook, pencil case and a calculator.

Homework Required

Students will be expected to complete a variety of tasks outside of class time. This may include, teacher-set homework, research for tasks, revision for tests, review of class work and more.

Assessment Schedule

	Due Date	% Weighting
Measurement Test	12/08/2026	
Skate Park Assignment	21/08/2026	
Similarity and Congruence Test	09/09/2026	
Travel Time Task	21/09/2026	
Statistics Task	04/11/2026	
Probability Test	27/11/2026	
Classwork	04/12/2026	

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