



PRE-VOCATIONAL MATHEMATICS

COURSE AND ASSESSMENT OUTLINE

YEAR 11. SEMESTER 1

PRE-VOCATIONAL MATHS.

COURSE OUTLINE

WEEK	TOPIC	KEY LEARNINGS	ASSESSMENT (F or S, and K, A , E)
1 to 5	NUMBERS and FRACTIONS	<ul style="list-style-type: none"> • Number facts \times, \div, $+$, $-$; rounding • Types of fractions, decimals, percentage • Simple calculator operations for fractions 	In-class hand-in tasks based on a variety of interesting topics (F – K) Practical application scenarios (S – K, A, E)
		<ul style="list-style-type: none"> • Use number skills to solve everyday problems • Convert between fractions • Use calculator to solve everyday problems involving fractions 	
		<ul style="list-style-type: none"> • Use appropriate maths language to explain everyday situations 	
6 to 10	NUMBER – RATIO and RATES	<ul style="list-style-type: none"> • Ratio symbol, equivalent ratios, everyday ratios • Rates (examples), Direct and Inverse proportion • Use calculator to carry out calculations involving rates 	In-class hand-in tasks (F – K) Practical application scenarios (S – K, A, E)
		<ul style="list-style-type: none"> • Solve simple Rates problems • Draw and interpret graphs involving proportion • Solve simple proportion problems 	
		<ul style="list-style-type: none"> • Explain solutions in words 	
11 to 20	FINANCE - SPENDING BUDGETS	<ul style="list-style-type: none"> • Use calculator to find percentage discount, mark-ups, mark-downs, profit • Credit / debit cards and fees • GST • Budgeting • Methods of payment – cash, cheque, electronic • Types of loans • Simple and compound interest • Risks of borrowing 	Prepare a budget (F - K, A, E) In-class hand-in tasks (S – K, A) Buying a Car exercise (S - K, A, E)
		<ul style="list-style-type: none"> • Create a budget • Interpret different types of credit 	
		<ul style="list-style-type: none"> • Explain comparisons between different types of payment 	

WEEK	TOPIC	KEY LEARNINGS	ASSESSMENT (F or S, and K, A , E)
1 TO 8	FINANCE – EARNING 1, 5	<ul style="list-style-type: none"> Forms of income – wages / salary, casual, contract Small business – incomes and outgoings Taxation - rates Social security payments 	FOLIO 1 In-class hand-in tasks (F – K) In-class hand-in tasks (S – K, A, E) Tax calculation exercise (S – K, A, E)
		<ul style="list-style-type: none"> Interpret payslips Award wages, compare wages from different jobs Calculate earnings Calculate tax payable 	
		<ul style="list-style-type: none"> Explain various modes of gaining income Explain basis of social security payments 	
9 TO 18	LOCATION and TIME 1, 3, 5	<ul style="list-style-type: none"> Read a range of maps Units of time (calculations) 12 / 24 hour time timetables time Zones 	FOLIO 2 In-class exercise using timetables and map interpretation (S – K, A, E) Using ICTs: REPORT Plan and cost a road trip within Australia (S – K, A, E) INVESTIGATION Plan a world trip including time zones. (S – K, A, E)
		<ul style="list-style-type: none"> Plan travel using maps and timetables calculating time taken solve problems relating to time zones Calculate costs of trips 	
		<ul style="list-style-type: none"> Justify a particular route to be taken in planning a trip 	

WEEK	TOPIC	KEY LEARNINGS	ASSESSMENT (F or S, and K, A , E)
1 to 5	MEASUREMENT – UNITS	<ul style="list-style-type: none"> Units of measurement (length, area, volume, mass, temperature, tyre pressure) Use of scales, gauges and meters Use a calculator for conversions between units 	TEST A In-class test on units (S – K, A, E) POSTER DISPLAY Research various instruments (F - K)
		<ul style="list-style-type: none"> Select and use appropriate equipment for measurement Select and apply appropriate units 	
		<ul style="list-style-type: none"> Explain a method of measuring a given unknown Explain appropriateness of estimations 	
6 to 14	MEASUREMENT – 2D SHAPES and REGULAR SOLIDS	<ul style="list-style-type: none"> Perimeters of irregular and regular shapes Areas of 2D shapes Volumes of regular solids Scales – reductions and enlargements Draw scale drawings 	TEST B In-class assessment tasks (S – K, A, E) IN-CLASS PROJECT Draw plans for a cottage and cost the building of it (S – K, A, E)
		<ul style="list-style-type: none"> Calculate perimeters, areas and volumes for use in practical applications e.g. paving Apply knowledge of scales to draw plans e.g. floor plans, parking areas etc. 	
		<ul style="list-style-type: none"> Explain the interpreting of plans 	
15 to 20	LOCATION	<ul style="list-style-type: none"> Compass points Read a range of maps Map conventions (scales/distance, grid references, latitude and longitude, keys and legends) 	ASSIGNMENT Map reading and map drawing exercise (S - K, A, E)
		<ul style="list-style-type: none"> Interpret location and direction from maps 	
		<ul style="list-style-type: none"> Draw a ‘mud map’ Explain terrain from a map 	

WEEK	TOPIC	KEY LEARNINGS	ASSESSMENT (F or S, and K, A , E)
1 to 9	DATA 1, 2	<ul style="list-style-type: none"> • Collection of data (observation, survey, sampling) • Recording data (tables) • Range, bias, mean, median • Displaying data (reading tables and graphs) • Draw tables and graphs (manual and ICT) • Misuse of data 	<p>FORMATIVE In-class theoretical and practical assessment tasks (S – K, A, E)</p> <p>SURVEY (7 weeks) Carry out a comprehensive survey and present findings as class talk or powerpoint (S – K, A, E)</p>
		<ul style="list-style-type: none"> • Apply procedures to collect data • Interpret data and make predictions • Identify flaws and bias • Select accepted methods to display data • Extract data from graphs 	
		<ul style="list-style-type: none"> • Use appropriate language regarding data • Discuss appropriate methods of collecting data • Explain statistical distortions 	
10 to 13	FINANCE – INVESTMENT 1, 5	<ul style="list-style-type: none"> • Types of investment (term deposit, shares, managed funds, real estate (and associated risks.)) • Effects of changing interest rates • 	<p>INVESTIGATION In-class tasks based on newspaper and other articles. (S – K, A, E)</p> <p>plus Share trading scenario (S – K, A, E)</p>
		<ul style="list-style-type: none"> • Calculate simple interest • Interpret financial statements • Identify and assess risks • Compare costs of different types of investment • Select most suitable investment strategy for a given scenario 	
		<ul style="list-style-type: none"> • Explain ‘for-and-against’ of various investment types 	
14 to 16	MEASUREMENT –REGULAR SOLIDS 1, 4	<ul style="list-style-type: none"> • Draw nets for solid shapes • • 	<p>IN-CLASS PROJECT Plan and construct a 3D model of a regular solid that will have a practical use (S - K, A)</p>