

Year 11 Mathematics in Practice 2006

Teachers: Glen Prideaux; Cecelia Raj

This programme is intended as a broad guide of the planned delivery of Mathematics in Practice. Actual timing may vary depending on the demands of the course and the time available to individual classes.

Term 1	Mon/Tue	Wed*	Thu/Fri
Week 2 6 Feb – 10 Feb	<ul style="list-style-type: none"> • Introduction to the course. • Outline expected organisational skills • Distribute and go through Curriculum Council documentation. • Explain assessment regime, grading scheme, homework expectation • Distribute course planner – Secondary awards Assembly Monday – School photos Tuesday 	<ul style="list-style-type: none"> • Orientation: Clarify • Orientation: Choose 	<ul style="list-style-type: none"> • Orientation: Review Clarify and Choose • Orientation: Use • Orientation: Interpret
Week 3 13 Feb – 17 Feb	<ul style="list-style-type: none"> • Orientation: Review Use and Interpret • Orientation: Communicate 	<ul style="list-style-type: none"> • Catch up time lost in week 2 to Secondary Awards Assembly (Monday) and School Photos (Tuesday). • Continue/complete Orientation tasks 	<p>Begin topic 1: Outdoor Maths (Measurement)</p> <ul style="list-style-type: none"> • Lesson 1 (p.4): Metric Units. • Lesson 2 (p.8): Estimation. • Homework: Problem on page 7 (due next lesson)
Week 4 20 Feb – 24 Feb	<ul style="list-style-type: none"> • Collect homework • Lesson 3 (p.12): Direct Measurement. • Lesson 4 (p.15): Volume and Capacity – Secondary House Swimming Carnival Monday 	<ul style="list-style-type: none"> • Lesson 5 (p.18): Mass and Weight. 	<ul style="list-style-type: none"> • Review corrected homework to correct misconceptions • Lesson 6 (p.21): Scale Diagrams • Homework: Problem page 24 (due next lesson)
Week 5 27 Feb – 3 Mar	<ul style="list-style-type: none"> • Collect homework • Lesson 7 (p.25): Solving problems using scale diagrams. • Lesson 8 (p.29): Bearings. • Issue structured project 1: The Meeting Place 	<ul style="list-style-type: none"> • Lesson 9 (p.33): Mapping • Lesson 10: (p.33ff) Mapping (cont.) 	<ul style="list-style-type: none"> • Review corrected homework to correct misconceptions • Project work: Activity One • Project work: Activity Two – Swimming Camp Thursday/Friday
Week 6 6 Mar – 9 Mar	<ul style="list-style-type: none"> • Project work: Activity Three (due last lesson this week) – Labour Day Holiday Monday 	<ul style="list-style-type: none"> • Project work 	<ul style="list-style-type: none"> • Project work: Activity four • Project work: Activity five • Homework: Finish project (due next lesson)

Week 7 13 Mar – 17 Mar	<ul style="list-style-type: none"> • Collect completed project (activities two, three and four) • Lesson 11 (p.37): Pythagorean Theorem 1 • Lesson 12 (p.42): Pythagorean Theorem 2 	<ul style="list-style-type: none"> • Lesson 13 (p.46): Surveying a rectangle 	<ul style="list-style-type: none"> • Last day for late submission of project • Lesson 14 (p.50): Length of the hypotenuse • Lesson 15 (p.55): Surveying a right-angled triangle • Homework: Problem page 59 (due next lesson)
Week 8 20 Mar – 24 Mar	<ul style="list-style-type: none"> • Collect homework • Lesson 16 (p.60): Trigonometry: the tangent ratio. • Lesson 17 (p.63): Finding a side length 	<ul style="list-style-type: none"> • Lesson 18 (p.68) Finding an angle size 	<ul style="list-style-type: none"> • Lesson 19 (p.73) Sine and cosine ratios • Lesson 20 (p.77): Finding the hypotenuse • Issue structured project 2: Window Cleaning
Week 9 27 Mar – 31 Mar	<ul style="list-style-type: none"> • Project work: Activity One • Project work: Activity Two/Three 	<ul style="list-style-type: none"> • Project work 	<ul style="list-style-type: none"> • Test 1 part 1 • Project work: Activity Three (due next lesson) • Homework: Finish project Activity Three
Week 10 3 Apr – 7 Apr Wet trades block placement	<ul style="list-style-type: none"> • Test 1 part 2 • Project Activity Four/Five 	<ul style="list-style-type: none"> • Project work 	<ul style="list-style-type: none"> • Begin topic 2: Budgeting and Credit • Lesson 1 (p.81): Origins of money • Homework: Finish project (due Monday)
Week 11 10 Apr – 14 Apr	<ul style="list-style-type: none"> • Collect completed project 2 • Monday: Catch up lost time – Easter Service Tuesday 	<ul style="list-style-type: none"> • Lesson 2 (p.83): Earning money • Last day for late submission of project 	<ul style="list-style-type: none"> – Secondary House Cross-Country Thursday – Good Friday Holiday Friday

Term 2	Mon/Tue	Wed*	Thu/Fri
Week 1 1 May – 5 May	<ul style="list-style-type: none"> Review progress to date Lesson 3 (p.87): Piecework, Fees – No students Monday 	<ul style="list-style-type: none"> Lesson 4 (p.90): Commission Lesson 5 (p.91): Comparing pays – No TAFE 	<ul style="list-style-type: none"> Lesson 6 (p.95): Personal Budgets Lesson 7 (p.98): Spending Issue structured project 3: Leaving Home
Week 2 8 May – 12 May	<ul style="list-style-type: none"> Collect homework Project work: Activities one to four to be completed by next Monday 	<ul style="list-style-type: none"> Project work 	<ul style="list-style-type: none"> Project work
Week 3 15 May – 19 May	<ul style="list-style-type: none"> Project work: Activity Five Collect completed project 3 	<ul style="list-style-type: none"> Catch up time Lesson 8 (p.102): Discounts . 	<ul style="list-style-type: none"> Last day for late submission of project 3 Lesson 9 (p.105): Best buys
Week 4 22 May – 26 May	<ul style="list-style-type: none"> Lesson 10 (p.109): Money and Cars Lesson 11 (p.113): Credit cards, layby Issue structured project 4: Which Bank? Which Credit Card? 	<ul style="list-style-type: none"> Lesson 12 (p.119): Borrowing 	<ul style="list-style-type: none"> Lesson 13 (p.123): Reducible interest Project work: Activity One
Week 5 29 May – 2 Jun SWL block placement	<ul style="list-style-type: none"> Project work 	<ul style="list-style-type: none"> Project work 	<ul style="list-style-type: none"> Project work
Week 6 5 Jun – 9 Jun	<ul style="list-style-type: none"> Project work – Foundation Day Monday – Exams 	<ul style="list-style-type: none"> Project work – Exams 	<ul style="list-style-type: none"> Project work – Exams
Week 7 12 Jun – 16 Jun	<ul style="list-style-type: none"> Collect completed project 4 Lesson 14 (p.125): Hire Purchase 	<ul style="list-style-type: none"> Lesson 15 (p. 128): Saving Money 	<ul style="list-style-type: none"> Last day for late submission of project Lesson 16 (p.134): Compound interest Lesson 17 (p.137): Currency exchange Homework: Problem p. 124 (due next lesson)
Week 8 19 Jun – 23 Jun	<ul style="list-style-type: none"> Lesson 18 (p.141): Travel Test 2 part 1 	<ul style="list-style-type: none"> Lesson 19 (p.146): Income tax 	<ul style="list-style-type: none"> Test 2 part 2 Begin topic 3: Chance & Data Lesson 1 (p.151): Probability
Week 9 26 Jun – 30 Jun	<ul style="list-style-type: none"> Lesson 2 (p.154): How fair is that? Lesson 3 (p.156): Equally likely 	<ul style="list-style-type: none"> Lesson 4 (p.158): Experimental probability 	<ul style="list-style-type: none"> Lesson 5 (p.160): Probability models Lesson 6(p.162) Theoretical probability Homework: Problem page 157
Week 10 3 Jul – 7 Jul	<ul style="list-style-type: none"> Collect homework Lesson 7 (p.165) Relative Frequency Lesson 8 (p.167) Expectation Structured Project 5 issued: Design a Board Game 	<ul style="list-style-type: none"> Lesson 9 (p.169): Complementary Events and Compound Probability Lesson 10 (p.172): Odds – No TAFE 	<ul style="list-style-type: none"> Project work

Term 3	Mon/Tue	Wed*	Thu/Fri
Week 1 24 Jul – 28 Jul	<ul style="list-style-type: none"> Project work – No Students Monday 	<ul style="list-style-type: none"> Project work 	<ul style="list-style-type: none"> Project work
Week 2 31 Jul – 4 Aug	<ul style="list-style-type: none"> Collect completed Structured Project 5 Lesson 11 (p.174): Using Random Numbers Lesson 12 (p.176): Join the queue 	<ul style="list-style-type: none"> Lesson 13: Simulation of the TAB 	<ul style="list-style-type: none"> Last day for late submission of structured project 5 Lesson 14: Further simulation – House Athletics Carnival Friday
Week 3 7 Aug – 11 Aug	<ul style="list-style-type: none"> Lesson 15 (p.184): Sampling Lesson 16 (p.187): Capture – recapture 	<ul style="list-style-type: none"> Lesson 17 (p.190): Simulated Sampling 	<ul style="list-style-type: none"> Lesson 18 (p.192): Reliability
Week 4 14 Aug – 18 Aug	<ul style="list-style-type: none"> Lesson 19 (p.195): More queues Structured Project 6 issued: The Interview 	<ul style="list-style-type: none"> Project work 	<ul style="list-style-type: none"> Project work/Catch up
Week 5 21 Aug – 25 Aug Wet trades block placement	<ul style="list-style-type: none"> Project work – Monday: Pupil free day 	<ul style="list-style-type: none"> Project work 	<ul style="list-style-type: none"> Project work
Week 6 28 Aug – 1 Sep	<ul style="list-style-type: none"> Collect completed Project 6 Test 3 	<ul style="list-style-type: none"> Catch up. 	<ul style="list-style-type: none"> Last day for late submission of project Begin topic 4: In Two Dimensions Lesson 1 (p.197): Topology Lesson 2 (p.199): Network Theory
Week 7 4 Sep – 8 Sep	<ul style="list-style-type: none"> Lesson 3 (P.203): Interpreting Networks Lesson 4 (P.209): Drawing Networks . 	<ul style="list-style-type: none"> Lesson 5 (p.213): Traversability . 	<ul style="list-style-type: none"> Lesson 6 (p.216): Delivery problem Homework: Problem page 208
Week 8 11 Sep – 15 Sep	<ul style="list-style-type: none"> Structured project 7 issued: Jamie's Gardening Service Project work 	<ul style="list-style-type: none"> Project work 	<ul style="list-style-type: none"> Project work
Week 9 18 Sep – 22 Sep	<ul style="list-style-type: none"> Collect completed Project 7 . 	<ul style="list-style-type: none"> Lesson 7 (p.220): Small business problem 1 	<ul style="list-style-type: none"> Last day for late submission of project Lesson 8 (p.221): Small business problem 2
Week 10 25 Sep – 29 Sep	<ul style="list-style-type: none"> Lesson 9 (p.222): Small business problem 3 – Tuesday: Monday A timetable 	<ul style="list-style-type: none"> Lesson 10 (p.223): Travelling networks (I) – Wednesday: Monday B timetable 	<ul style="list-style-type: none"> Lesson 11 (p.226): Travelling networks (II)

Term 4	Mon/Tue	Wed*	Thu/Fri
Week 1 16 Oct – 20 Oct Wet trades block placement	<ul style="list-style-type: none"> Lesson 12 (p.229): Shortest path problem – 	<ul style="list-style-type: none"> Lesson 13 (p.231): Shortest path exercises 	<ul style="list-style-type: none"> Lesson 14 (p.234): The Round Trip
Week 2 23 Oct – 27 Oct	<ul style="list-style-type: none"> Lesson 15 (p.237): Shortest connection problem 	<ul style="list-style-type: none"> Lesson 16 (p.240): Shortest connection exercises 	<ul style="list-style-type: none"> Lesson 17 (P.242): Reticulation Structured Project 8 Issued: A Small Business Decision
Week 3 30 Oct – 3 Nov	<ul style="list-style-type: none"> Project work 	<ul style="list-style-type: none"> Project work – No TAFE 	<ul style="list-style-type: none"> Project work
Week 4 6 Nov – 10 Nov	<ul style="list-style-type: none"> Project work Catch-up work 	<ul style="list-style-type: none"> Project work Catch-up work 	<ul style="list-style-type: none"> Project work Catch-up work
Week 5 13 Nov – 17 Nov	<ul style="list-style-type: none"> Last day: Structured Project 8 due Test 4 	<ul style="list-style-type: none"> – Exams 	<ul style="list-style-type: none"> Last day for late submission of project – Exams

* Some students will be at TAFE on Wednesdays

Record of Performance

Student:

Task	Outcome 1 Clarifies a problem	Outcome 2 Chooses a model to solve a problem	Outcome 3 Uses a model to solve a problem	Outcome 4 Interprets and checks the solution to a problem	Outcome 5 Communicates an obtained result
Topic 1: Outdoor Mathematics (Measurement)					
Project: The Meeting Place					
Project: Window Cleaning					
Test 1					
Topic 2: Budgeting and Credit (Number)					
Project: Leaving Home					
Project: Which Bank? Which Credit Card?					
Test 2					
Topic 3: Chance and Data					
Project: Design a Board Game					
Project: The Interview					
Test 3					
Topic 4: In Two Dimensions (Space)					
Project: Jamie's Gardening Service					
Project: A Small Business Decision					
Test 4					
Overall					

Grade:	
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Programme of Assessment

Topic 1: Outdoor Mathematics (Measurement)		
Project 1	The Meeting Place	Due date: 13/14 March 2006
Project 2	Window Cleaning	Due date: 10/11 April 2006
Test 1	Part 1: Clarify and choose; Part 2: Use and Interpret	30/31 March, 3/4 April
Topic 2: Budgeting and Credit (Number)		
Project 3	Leaving Home	Due date: 15/16 May 2006
Project 4	Which Bank? Which Credit Card?	Due date: 12/13 June 2006
Test 2	Part 1: Clarify and choose; Part 2: Use and Interpret	19/20, 22/23 June 2006
Topic 3: Chance and Data		
Project 5	Design a Board Game	Due date: 31 July/1 August 2006
Project 6	The Interview	Due date: 28/29 August 2006
Test 3		28/29 August 2006
Topic 4: In Two Dimensions (Space)		
Project 7	Jamie's Gardening Service	Due date: 18/19 September 2006
Project 8	A Small Business Decision	Due date: 13/14 November 2006
Test 4		13/14 November 2006