

Year 10 Mathematics Extension

Work rate calendar (WRC) 2024

Term 1

All students are expected to participate in all online lessons and complete all assessment as outlined in this **Work rate calendar**.

Teachers may adjust topics, class work, assessment and submission dates. Adjustments will be communicated via QLearn or during lessons.

Assessment				
Supervised assessment		Summative exams are to be supervised by the student's official exam supervisor.		
Non-supervised assessment		Students must sign declaration of academic integrity.		
Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	22 Jan – 26 Jan	Unit 1	Monday 22 January — Welcome calls for students: Prep – Year 12	PAT-M Testing
			Wednesday 24 January — Learning for success: Prep – Year 12	To be submitted by 5pm
			Friday 26 January — Australia Day Holiday	Thursday 25 January
Introduction to Mathematics Extension				
2	29 Jan – 2 Feb		Topic 1 Surface area and volume	As per Learning Guide
			Lesson 1 6.3 Total surface area	
			Lesson 2 6.3 Total surface area Lesson 3 SA1 introduction	
3	5 Feb – 9 Feb		Friday 9 February — Senior orientation day: Years 10–12	As per Learning Guide
			Lesson 1 6.4 Volume	
			Lesson 2 6.4 Volume Lesson 3 Catch up if available	
4	12 Feb – 16 Feb	Lessons 1–3 Working on SA1	SA1 Draft To be submitted by 5pm Friday 16 February	
5	19 Feb – 23 Feb	Topic 2 Chance	As per Learning Guide	
		Lesson 1 11.2 Review of probability		
		Lesson 2 11.3 Tree diagrams Lesson 3 11.4 Dependent and independent events		
6	26 Feb – 1 Mar	Lesson 1 11.5 Conditional probability	SA1 Final	
		Topic 3 Linear relationships	To be submitted by 5pm Friday 1 March	
		Lesson 2 2.2 Substitution Lesson 3 2.5 Solving simple equations		
7	4 Mar – 8 Mar	Lesson 1 2.6 Solving multistep equations	As per Learning Guide	
		Lesson 2 3.3 Determining linear equations		
		Lesson 3 3.4 Parallel and perpendicular lines		
8	11 Mar – 15 Mar	Lesson 1 4.7 Solving linear inequalities	As per Learning Guide	
		Lesson 2 4.7 Solving linear inequalities		
		Topic 4 Geometry		
9	18 Mar – 22 Mar	Lesson 3 10.2 Angles, triangles, and congruence		
		Lesson 1 10.3 Similar triangles	As per Learning Guide	
		Lesson 2 Introduction to Pythagoras and trigonometry Lesson 3 5.7 Angles of elevation and depression		
10	25 Mar – 29 Mar	Thursday 28 March — Cross country / Fun run: Prep – Year 12	As per Learning Guide	
		Friday 29 March — Good Friday		
		Lesson 1 5.8 Bearings Lesson 2 5.8 Bearings Lesson 3 Catch up if available		

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Term 2

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Assessment					
Supervised assessment		Summative exams are to be supervised by the student's official exam supervisor.			
Non-supervised assessment		Students must sign declaration of academic integrity.			
Week	Dates	Unit	Topic	Class work / Assessment to be submitted	
Unit 1	1	15 Apr – 19 Apr	Topic 5 Quadratics Lesson 1 7.2 Expanding algebraic expressions Lesson 2 7.4 Factorising expressions with 2 or 4 terms Lesson 3 7.3 Factorising expressions with 3 terms (non-monic)	As per Learning Guide	
	2	22 Apr – 26 Apr	Thursday 25 April — Anzac Day Lesson 1 7.3 Factorising expressions with 3 terms (non-monic) Lesson 2 7.3 Factorising expressions with 3 terms (monic) Lesson 3 Catch up if available	As per Learning Guide	
	3	29 Apr – 3 May	Lesson 1 7.6 Mixed factorisation Lesson 2 8.4 Solving quadratic equations graphically Lesson 3 8.2 Solving quadratic equations algebraically	As per Learning Guide	
	4	6 May – 10 May	Monday 6 May — Labour Day Lesson 1 8.2 Solving quadratic equations algebraically Lesson 2 8.3 The quadratic formula Lesson 3 Catch up if available	As per Learning Guide	
	5	13 May – 17 May	Lesson 1 8.2/8.3 Word problems Lesson 2 9.5 Sketching parabolas of the form $y = ax^2 + bx + c$ Lesson 3 9.5 Sketching parabolas	As per Learning Guide	
	6	20 May – 24 May	Revision	See QLearn/OneNote	
	7	27 May – 31 May	Revision and completion of SA2 – Exam (Topics 1 – 5)		SA2 – Exam To be submitted by 5pm Friday 31 May
	8	3 Jun – 7 Jun	Topic 6A Statistics – bivariate data Lesson 1 13.2 Bivariate data, graphing scatterplots using technology Lesson 2 13.3 Using excel Lesson 3 13.3 Lines of best fit	As per Learning Guide	
	9	10 Jun – 14 Jun	Lesson 1 13.5 Time series Lesson 2 12.8 Evaluating inquiry methods/statistical reports Lesson 3 SA3 – In class exam (Topic 6A) - Education Perfect	SA3 – In class exam To be submitted by 5pm Friday 14 June	
	10	17 Jun – 21 Jun	Friday 21 June — Athletics carnival / Sports day: Prep – Year 12 Enrichment topic Lesson 1 Completing the square Lesson 2 Completing the square Lesson 3 Catch up if available		

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Term 3

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Assessment				
Supervised assessment		Summative exams are to be supervised by the student's official exam supervisor.		
Non-supervised assessment		Students must sign declaration of academic integrity.		
Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	8 Jul – 12 Jul	Unit 2	Topic 6B Statistics – univariate data Lesson 1 12.2/12.3 Measures of central tendency / spread – range Lesson 2 12.2/12.3 Measures of central tendency / spread – range Lesson 3 12.5 Measure of spread — standard deviation	As per Learning Guide
2	15 Jul – 19 Jul		Lesson 1 12.3 Measure of spread — IQR Lesson 2 12.4 Box and whisker plots Lesson 3 12.6 Comparing data sets	As per Learning Guide
3	22 Jul – 26 Jul		Wednesday 24 July – Friday 26 July — SET plan meetings: Year 10 Topic 7 Simultaneous equations Lesson 1 4.2 Solving simultaneous equations — intro/graphing Lesson 2 4.3 Solving simultaneous equations using substitution Lesson 3 4.4 Solving simultaneous equations using elimination	As per Learning Guide
4	29 Jul – 2 Aug		Lesson 1 4.5 Applications of simultaneous linear equations Lesson 2 4.5 Applications of simultaneous linear equations Lesson 3 Revision	As per Learning Guide
5	5 Aug – 9 Aug		Revision and completion of SA4 – Exam (Topics 6B and 7)	SA4 – Exam To be submitted by 5pm Friday 9 August
6	12 Aug – 16 Aug		Wednesday 14 August — Royal Queensland (Ekka) Show Holiday Topic 8 Indices and surds Lesson 1 1.5 Review of index laws Lesson 2 1.6 Negative indices Lesson 3 Catch up if available	As per Learning Guide
7	19 Aug – 23 Aug		Lesson 1 1.7 Fractional indices Lesson 2 1.8 Combining index laws Lesson 3 1.3 Surds / 1.4 Operations with surds	As per Learning Guide
8	26 Aug – 30 Aug		Friday 30 August — Student free day Lesson 1 1.4 Operations with surds (simplifying, multiply) Lesson 2 1.4 Operations with surds (add, subtract, divide) Lesson 3 Catch up if available	As per Learning Guide
9	2 Sept – 6 Sept		Lesson 1 1.4 Operations with surds (rationalise denominators) Topic 9 Logarithms Lesson 2 1.10 Logarithms Lesson 3 1.11 Log laws	As per Learning Guide
10	9 Sept – 13 Sept		Friday 13 September — Connect excursion: Years 10–12 Lesson 1 1.12 Solving equations Lesson 2 1.12 Solving equations Lesson 3 Catch up if available	As per Learning Guide

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Term 4

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Assessment				
Supervised assessment		Summative exams are to be supervised by the student's official exam supervisor.		
Non-supervised assessment		Students must sign declaration of academic integrity.		
Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	30 Sept – 4 Oct	Unit 2	Topic 10 Trigonometry Lesson 1 17.2 The sine rule Lesson 2 17.2 The sine rule Lesson 3 17.3 The cosine rule	As per Learning Guide
2	7 Oct – 11 Oct		Monday 7 October — King's Birthday Holiday Lesson 1 17.3 The cosine rule Lesson 2 17.4 Area of a triangle Lesson 3 Catch up if available	As per Learning Guide
3	14 Oct – 18 Oct		Monday 14 October – Wednesday 16 October — School camp: Years 9–10 Topic 11 Finance and exponential functions Lesson 1 1.9 Compound interest Lesson 2 Non camp activities Lesson 3 Non camp activities	As per Learning Guide
4	21 Oct – 25 Oct		Lesson 1 1.9 Compound interest Lesson 2 15.3 Applications of exponential functions Lesson 3 15.3 Applications of exponential functions	As per Learning Guide
5	28 Oct – 1 Nov		Revision	See QLearn/OneNote
6	4 Nov – 8 Nov		Revision and completion of SA5 – Exam (Topics 6B – 11)	SA5 – Exam To be submitted by 5pm Friday 8 November
7	11 Nov – 15 Nov	Unit 3	Topic 12 Functions and relations Lesson 1 15.2 Functions and relations Lesson 2 9.9 Circles Lesson 3 DESMOS Activity (if available)	As per Learning Guide
8	18 Nov – 22 Nov		Friday 22 November — Aquatic carnival: Prep – Year 11 Friday 22 November — Final day: Years 10–11 Lesson 1 15.6 Transformations Lesson 2 SA5 Review	As per Learning Guide
9	25 Nov – 29 Nov			
10	3 Dec – 6 Dec			
11	9 Dec – 13 Dec			