

# Year 11 Physics

## Work rate calendar (WRC) 2025

## 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				
<b>Supervised assessment</b>		Summative exams are to be supervised by the student's official exam supervisor.		
<b>Non-supervised assessment</b>		Students must sign declaration of academic integrity.		
Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	27 Jan – 31 Jan	Unit 1: Topic 1	Monday 27 January — Australia Day Holiday	<b>Supervisor Safety Declaration Due 31<sup>st</sup> Jan</b>
			<b>Heating Processes</b> SI Units, Scientific Notation, Significant figures, Calculating with sig. fig. Error and error Analysis	
2	3 Feb – 7 Feb		<b>Specific Heat Capacity</b> Kinetic particle theory, temperature and kinetic energy, measuring temperature, Thermal equilibrium specific heat capacity, calorimetry Graphical Analysis, Linearization graphs	
			3	10 Feb – 14 Feb
<b>Latent Heat and Equilibrium</b> Changes of state and latent heat, Heat transfers, heat and work. Heat capacity				
4	17 Feb – 21 Feb		<b>Thermodynamics</b> Energy in systems and review of thermal equilibrium Changes in internal energy, heat engines and efficiency	<b>QLearn Quiz W1-W4 Checkpoint</b>
5	24 Feb – 28 Feb		<b>Ionising radiations and nuclear reactions</b> The nuclear model of the atom, nuclear stability, describe nuclides using relevant nomenclature.	
6	3 Mar – 7 Mar		<b>Radioactive decay</b> Radioactivity, properties of nuclear radiation, radioactive decay, types of decay, half-life, laws of radioactive decay	
7	10 Mar – 14 Mar		<b>Nuclear Energy</b> Artificial transmutation, nuclear fission, nuclear fusion	
8	17 Mar – 21 Mar		Unit 1: Topic 2/3	<b>Mass Energy Equivalence</b> Describe the mass-energy relationship. Solve problems involving $E=mc^2$
		<b>Practice Data Test</b>		
9	24 Mar – 28 Mar	<b>Exams: Year 11</b> Monday 24 March – Friday 28 March		<b>FA1 Data Test</b> Due March 28th 5pm
		<b>Revision</b> Data Test Revision Unit 1: Topic 1 & 2		
10	31 Mar – 4 Apr	Thursday 3 April — Cross country / Fun run: Prep – Year 12		
		<b>Electrical Circuits</b> Charge, current and voltage, voltage and sources of potential energy, power		

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## Term 2

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Assessment					
<b>Supervised assessment</b>		Summative exams are to be supervised by the student's official exam supervisor.			
<b>Non-supervised assessment</b>		Students must sign declaration of academic integrity.			
Week	Dates	Unit	Topic	Class work / Assessment to be submitted	
1	21 Apr – 25 Apr	Unit 1: Topic 3	Monday 21 April — Easter Monday		
			Tuesday 22 April – Thursday 24 April — School camp: Year 11		
			Friday 25 April — Anzac Day		
			<b>Electrical Circuits</b>		
			Resistance, Ohm's law, resistance in series and parallel		
			Practical 8.1		
2	28 Apr – 2 May			<b>FA2: Introduction</b>	Practical 8.1 Due May 2 <sup>nd</sup>
				The scientific method, The student experiment	FA2 Proposal Due May 2 <sup>nd</sup>
3	5 May – 9 May			Monday 5 May — Labour Day	
				<b>Circuit analysis and design</b>	
			Kirchhoff's circuit laws, circuit analysis, electrical energy and power dissipation		
4	12 May – 16 May		<b>FA2: Student experiment</b>	FA2 Data Due May 16 <sup>th</sup>	
			Data collection & Analysis		
5	19 May – 23 May		<b>FA2: Student Experiment</b>	FA2 Draft Due May 23 <sup>rd</sup>	
			Interpretation, Evaluation, Scientific Argument - Draft		
6	26 May – 30 May	Unit 2: Topic 2	<b>Wave Properties</b>	QLearn Quiz W6 Checkpoint	
			Characteristics of waves		
7	2 Jun – 6 Jun		<b>FA2: Student Experiment</b>		
			Apply draft feedback		
8	9 Jun – 13 Jun		<b>Sound and Light Wave Properties</b>	FA2 Final Due June 13 <sup>th</sup>	
			Properties and applications of sound waves Properties of light, reflection & refraction		
9	16 Jun – 20 Jun		<b>Light Waves &amp; FA3 Introduction</b>	Practical 16.1 Due June 20 <sup>th</sup>	
			Ray diagrams, Snell's law, and reflection Practical 16.1 Determining refractive index		
			<b>FA3 Introduction</b>		
10	23 Jun – 27 Jun		Friday 27 June — Athletics carnival / Sports day: Prep – Year 12	FA3 Proposal Due	
		<b>FA3 Research Investigation</b>			
		Proposal supported by data			

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### Term 3

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Assessment				
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<b>Non-supervised assessment</b>		Students must sign declaration of academic integrity.		
Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	14 Jul – 18 Jul	Unit 2: Topic 1	<b>FA3 Research Investigation</b> Class time for FA3	
2	21 Jul – 25 Jul		<b>FA3 Research Investigation</b> Class time for FA3	QLearn Review Quiz
3	28 Jul – 1 Aug		<b>Vectors and Scalars</b> Displacement, velocity and acceleration and force Practical 10.1: Acceleration due to gravity	<b>FA3 Draft Due Aug 1<sup>st</sup></b> <b>Practical 10.1 Due Aug 1<sup>st</sup></b>
4	4 Aug – 8 Aug		<b>Newton's Laws of Motion</b> Force, weight and gravity Acceleration, equations of motion and Newton's laws Free-body diagrams Practical 10.2: graphs of motion	
5	11 Aug – 15 Aug		<b>Wednesday 13 August — Royal Queensland (Ekka) Show Holiday</b> <b>Research Investigation</b> Seeking and applying draft feedback to final report	
6	18 Aug – 22 Aug	Unit 2: Topic 1	<b>Momentum, Impulse and Work</b> Conservation of momentum, Conservation of energy	<b>FA3 Final Due Aug 22<sup>nd</sup></b>
7	25 Aug – 29 Aug		<b>Work and Energy</b> Gravitational potential and kinetic energy	
8	1 Sept – 5 Sept		<b>Friday 5 September — Student free day</b> <b>Linear Motion and Force</b> Energy changes and collisions	<b>Practice Exam</b>
9	8 Sept – 12 Sept		<b>Revision</b> Unit 1 & 2 Revision	
10	15 Sept – 19 Sept		<b>Exams: Year 11</b> <b>Monday 15 September – Friday 19 September</b> <b>Friday 19 September — Connect day: Years 11–12</b>	<b>FA4 Exam Due September 19<sup>th</sup></b>

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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	6 Oct – 10 Oct	Unit 3: Topic 1	Monday 6 October — King's Birthday Holiday	
			<b>Introduction to Gravity and Motion</b> Projectile motion and vectors, Horizontal projection, Combining vectors <b>Mandatory practical 1.3: projection at an angle</b>	
2	13 Oct – 17 Oct		<b>Gravity and Motion</b> Projection at an angle	<b>Practical 1.3 Report</b>
3	20 Oct – 24 Oct		<b>Inclined Plane</b> Forces due to gravity, friction and tension Forces acting on an inclined plane <b>Teacher demonstration Practical 3.3: centripetal force</b>	<b>QLearn Quiz W3 Checkpoint</b>
4	27 Oct – 31 Oct		<b>Circular Motion</b> Uniform circular motion Centripetal acceleration and force	
5	3 Nov – 7 Nov		<b>Newton's laws of Universal Gravitation</b> Gravitational fields	
6	10 Nov – 14 Nov		<b>Electrostatics Introduction</b> Practical 7.2: Strength of a magnet at various distances Practical Excursion	<b>Practical 7.2 Report</b>  <b>QLearn Quiz W6 Checkpoint</b>
7	17 Nov – 21 Nov		Friday 21 November — Aquatic carnival: Prep – Year 11 <b>Electrostatics</b> Solving problems involving charged particles	<b>Gravity Review Quiz</b>
8	24 Nov – 28 Nov	<b>Exams: Year 11</b> Monday 24 November – Friday 28 November Friday 28 November — Final day: Years 10–11		