

# Year 11 Physics

## 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: Topic 1	Monday 22 January — Welcome calls for students: Prep – Year 12	Chapter 0.1, 0.2, 0.3 QLearn Review Quiz
			Wednesday 24 January — Learning for success: Prep – Year 12	
			Friday 26 January — Australia Day Holiday	
			<b>Heating Process</b>	Supervisor Safety Declaration
			SI Units, Scientific Notation, Significant figures, Calculating with sig. fig. Error and error Analysis	Due Friday 26 January
2	29 Jan – 2 Feb		<b>Graphing</b>	Chapter 0.4, 0.5, 0.6, 0.7 QLearn Review Quiz
			Graphical Analysis, Linearization graphs	
			Suggested practical 1: accuracy, precision, and reporting uncertainty in results	
3	5 Feb – 9 Feb		Friday 9 February — Senior orientation day: Years 10–12	Chapter 1.1, 1.2, 1.5
			<b>Specific Heat Capacity</b>	Chapter 2.1, 2.2, 2.3 QLearn Review Quiz
		Kinetic particle theory, temperature and kinetic energy, measuring temperature, Thermal equilibrium specific heat capacity, calorimetry		
		<b>Mandatory practical 1.1: Linear equations</b>		
4	12 Feb – 16 Feb	<b>Latent Heat and Equilibrium</b>	Chapter 1.1, 1.2, 1.5	
		Changes of state and latent heat, Heat transfers, heat and work. Heat capacity	Chapter 2.4, 3.1, 3.2 QLearn Review Quiz	
		<b>Mandatory Practical 2.2 Specific Heat capacity</b>	Mandatory Practical 1.1 due	
5	19 Feb – 23 Feb	<b>Thermodynamics</b>	Chapter 3.4, 3.5	
		Energy in systems and review of thermal equilibrium	QLearn Review Quiz	
		Changes in internal energy, heat engines and efficiency	Mandatory Practical 2.2 due	
6	26 Feb – 1 Mar	<b>Ionising radiations and nuclear reactions</b>	Chapter 4.1, 4.2, 4.3 QLearn Review Quiz	
		The nuclear model of the atom, mass defect and binding energy, nuclear stability.		
7	4 Mar – 8 Mar	<b>Radioactive decay</b>	Chapter 5.1 to 5.6 QLearn Review Quiz	
		Radioactivity, properties of nuclear radiation, radioactive decay, types of decay, half-life, laws of radioactive decay		
8	11 Mar – 15 Mar	<b>Nuclear Energy</b>	Chapter 6.1 to 6.3 QLearn Review Quiz	
		Artificial transmutation, nuclear fission, nuclear fusion	Practice Data Test	
9	18 Mar – 22 Mar	<b>Exams: Year 11</b>	<b>FA1 Data Test:</b>	
		Monday 18 March – Friday 22 March	<b>Due 22<sup>nd</sup> March</b>	
		<b>Data Test Revision Unit 1: Topic 1 &amp; 2</b>		
10	25 Mar – 29 Mar	Unit 1: Topic 3	Thursday 28 March — Cross country / Fun run: Prep – Year 12	Chapter 7.1 to 7.4 QLearn Review Quiz
			Friday 29 March — Good Friday	
			<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				
Supervised assessment		Summative exams are to be supervised by the student's official exam supervisor.		
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Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	15 Apr – 19 Apr	Unit 1: Topic 3	<b>Electrical Circuits</b> Resistance, Ohm's law, resistance in series and parallel, <b>Mandatory Practical 8.1</b> <b>Introduction FA2- Demonstration Mandatory Practical 10.1</b>	Chapter 8.1, 8.2, 8.3 Qlearn Review Quiz
2	22 Apr – 26 Apr		Thursday 25 April — Anzac Day <b>Scientific Method</b> The scientific method, The student experiment	Chapter 0.8, 0.9 Qlearn Review Quiz FA2 Student experiment Proposal due Friday 26th April <b>Mandatory Practical 8.1 due</b>
3	29 Apr – 3 May		<b>Circuit analysis and design</b> Kirchhoff's circuit laws, circuit analysis, electrical energy and power dissipation	Chapter 9.1, 9.2, 9.3 Qlearn Review Quiz
4	6 May – 10 May		Monday 6 May — Labour Day <b>FA2: Student experiment</b> Collect data	<b>FA2 Student Experiment Draft Due</b> Friday 10th May
5	13 May – 17 May		<b>FA2: Student Experiment</b> Analyse, interpret, Evaluate, Draft	
6	20 May – 24 May	Unit 2: Topic 2	<b>Wave Properties</b> Characteristics of waves	Chapter 14.1, 14.2, 14.3 Qlearn Review Quiz
7	27 May – 31 May		<b>FA2: Student Experiment</b> Apply draft feedback	<b>FA2 Students Experiment final due</b> Friday 31 <sup>st</sup> May
8	3 Jun – 7 Jun		<b>Wave Properties</b> Properties and applications of sound waves	Chapter 14.4, 14.5, 14.6 Qlearn Review Quiz
9	10 Jun – 14 Jun		Monday 10 June – Thursday 13 June — School camp: Year 11 <b>FA3 Research Investigation</b> Proposal supported by data	Chapter 0.10
10	17 Jun – 21 Jun	Friday 21 June — Athletics carnival / Sports day: Prep – Year 12 <b>Light Waves</b> Properties of light, reflection & refraction	Chapter 15.1, 15.2, 15.3 Qlearn Review Quiz <b>FA3 Research Investigation proposal due</b> 21st June	

# Year 11 Physics

## Work rate calendar (WRC) 2024

## 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 1: Topic 1	<b>Light Waves</b> Ray diagrams, Snell's law, and reflection <b>Mandatory practical 16.1: determining refractive index</b>	Chapter 16.6, 16.8 QLearn Review Quiz
2	15 Jul – 19 Jul		<b>Research Investigation</b> Class time for FA3	<b>Mandatory Practical 16.1: Determining refractive index due</b>
3	22 Jul – 26 Jul		<b>Another Light Wave Behaviour</b> Total internal reflection, Diffraction of Light	Chapter 16.1 to 16.5 <b>FA3 Research Investigation draft due</b> Friday 26 <sup>th</sup> July
4	29 Jul – 2 Aug		<b>Vectors and Scalars</b> Displacement, velocity and acceleration Acceleration and Force Acceleration, equations of motion and Newton's laws Free-body diagrams <b>Mandatory practical 10.1: acceleration due to gravity</b>	Chapter 10.1 to 10.7 QLearn Review Quiz
5	5 Aug – 9 Aug		<b>Newton's Laws of Motion</b> Force, weight and gravity <b>Practical 10.2: graphs of motion</b>	Chapter 11.1 to 11.6 QLearn Review Quiz <b>Mandatory Practical 10.1: Acceleration due to gravity due</b>
6	12 Aug – 16 Aug	Unit 2: Topic 1	<b>Wednesday 14 August — Royal Queensland (Ekka) Show Holiday</b> <b>Research Investigation</b> Seeking and applying draft feedback to final report	<b>Mandatory Practical 10.2 Graphs of motion due</b>
7	19 Aug – 23 Aug		<b>Momentum, Impulse and Work</b> Conservation of momentum, Conservation of energy	Chapter 12.1 and 12.2 QLearn Review Quiz <b>FA3 Research Investigation Final report due</b> 23rd of Aug
8	26 Aug – 30 Aug		<b>Friday 30 August — Student free day</b> <b>Work and Energy</b> Gravitational potential and kinetic energy Energy changes and collision	Chapter 13.1 to 13.4 QLearn Review Quiz
9	2 Sept – 6 Sept		<b>Revision unit 1 and 2</b>	
10	9 Sept – 13 Sept		<b>Exams: Year 11</b> <b>Monday 9 September – Thursday 12 September</b> <b>Friday 13 September — Connect excursion: Years 10–12</b> <b>Revision Unit 1 &amp; 2</b>	<b>FA4: Exam Units 1-2 due</b> 13th September

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## Work rate calendar (WRC) 2024

## Term 4

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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	30 Sept – 4 Oct	Unit 3: Topic 1	<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>	Chapter 1.1 to 1.3 Qlearn Review Quiz
2	7 Oct – 11 Oct		<b>Monday 7 October — King's Birthday Holiday</b> <b>Gravity and Motion</b> Projection at an angle	Chapter 2.1 to 2.3 Qlearn Review Quiz <b>Mandatory Practical 1.3 Projection at an Angle</b>
3	14 Oct – 18 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>	Chapter 3.1 to 3.3 Qlearn Review Quiz
4	21 Oct – 25 Oct		<b>Circular Motion</b> Uniform circular motion Centripetal acceleration and force	Chapter 4.1 to 4.3 Qlearn Review Quiz <b>Mandatory Practical 3.3 Centripetal force due</b>
5	28 Oct – 1 Nov		<b>Newton's laws of Universal Gravitation</b> Gravitational fields	Chapter 5.1 Qlearn Review Quiz
6	4 Nov – 8 Nov	Unit 3: Topic 1	<b>Electrostatics</b> Coulombs law Electric fields <b>Mandatory practical 7.2: Magnetic force</b>	Chapter 6.1 Qlearn Review Quiz
7	11 Nov – 15 Nov		<b>Electrostatics</b> Electric fields and field strength	Chapter 6.2 Qlearn Review Quiz <b>Mandatory practical 7.2 due</b>
8	18 Nov – 22 Nov		<b>Exams: Year 11</b> <b>Monday 18 November – Friday 22 November</b> <b>Friday 22 November — Aquatic carnival: Prep – Year 11</b> <b>Friday 22 November — Final day: Years 10–11</b> <b>Review unit 3 topic 1 and 2</b>	
9	25 Nov – 29 Nov			
10	2 Dec – 6 Dec			
11	9 Dec – 13 Dec			

Disclaimer: Information contained in this document is correct at time of publishing.