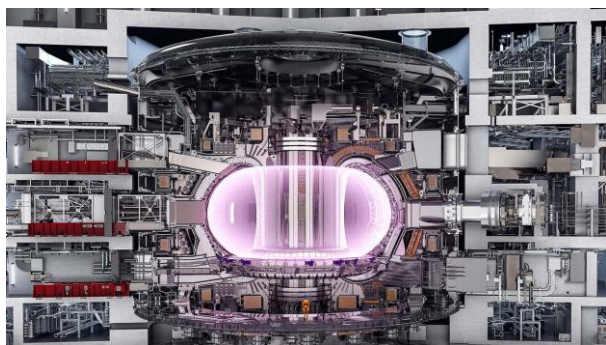




You will work through the following units as part of Physics 4

Unit 1: Newtonian mechanics including gravitational fields (Criterion 5)

This section enlarges on mechanical and Newtonian ideas of forces and motion, extending the ideas to the first of the natural forces - gravity.

Unit 2: Principles and theories of electricity and magnetism (Criterion 6)

The underlying principles of electromagnetism will be explored.

Unit 3: General principles of wave motion (Criterion 7)

Learners are introduced to waves as a physical phenomenon. It covers many general properties and looks at how waves can produce effects that cannot be explained through particulate ideas.

Unit 4: The wave-particle nature of light, atomic and nuclear physics and models of the nucleus and nuclear processes (Criterion 8)

Learners are introduced to the changes in the interpretation of the physical world that took place at the end of the nineteenth century into the present era.

How you'll be assessed:

Common types of internal assessments are:

- Tests
- Essays
- Investigation reports
- Online quizzes

The external assessment for this subject is a written examination assessing criteria: 5, 6, 7, 8.

The dates for external exams in November are non-negotiable.

COMPLETION OF WORK

Assessment due dates are provided in the Program of Learning and on Canvas. Work must be submitted by the due date unless an approved extension has been granted. Unapproved late submissions will incur penalties as outlined in the *Completion of Work Policy*. Students needing extensions should contact their subject teacher before the due date with valid reasons, such as illness or unforeseen circumstances.

For more details refer to the Launceston College: [Completion of Work Policy](#).

ACADEMIC INTEGRITY

All senior secondary students in Tasmania are expected to uphold academic integrity, meaning they complete their work honestly and fairly. This includes properly referencing any ideas, images, or information borrowed from others, allowing teachers to distinguish between original and sourced content.

Assignments will be submitted through Canvas, email, hard copy as directed in the task sheet.

For more details, refer to the Launceston College: [Academic Integrity Policy](#).

REFERENCING

The Harvard referencing system is recommended for Physics 4. The standards for criterion 1 state that a student must:

- create appropriate reference lists/bibliographies and use in-text referencing.
- clearly identifies the information, images, ideas and words of others used in the student's work.

COURSE DOCUMENT

The TASC website provides considerable information about the course. [Physics - TASC](#)

OTHER COURSE REQUIREMENTS

A scientific calculator. [External Assessment Rules and Calculator Policy - TASC](#)

1	6 Feb	Physical Sciences revision/Newtonian Mechanics C5	<i>Yr 11s and 12's return February 8 (Thursday)</i>
2	10 Feb		
3	17 Feb		Prac Report
4	24 Feb		
5	3 Mar	Circular Motion and Gravity C5	C5 Test #1
6	10 Mar		
7	17 Mar		Prac Report & C5 Test #2
8	24 Mar	Electrostatics C6	
9	31 Mar		
10	7 Apr		
Term 1 break – Saturday 12 April – Sunday 27 April			
1	28 Apr	Magnets, Motors and Induction C6	C6 Test #1
2	5 May		
3	12 May		
4	19 May		
5	26 May	Mechanical Waves C7	C6 Test #2
6	2 June		
7	9 June		<i>Mon 9 June – Public Holiday</i>
8	16 June	Sound C7	
9	23 June		<i>Mid-Year Assessments Level 3 & 4</i>
10	30 June		<i>Mid-Year Assessments Level 3 & 4</i>
Term 2 break – Saturday 5 July – Sunday 20 July			
1	21 July		C7 Test #1
2	28 July	Wave Nature of Light C7	
3	4 Aug		
4	11 Aug		
5	18 Aug	Quantum C8	C7 Test #2
6	25 Aug		
7	1 Sep		C8 Test #1
8	8 Sep	Nuclear C8	
9	15 Sep		C8 Test #2
10	22 Sep	Revision/Final Tests	C5 & C6 Final Test
Term 3 break – Saturday 27 September – Sunday 12 October			
1	13 Oct	Revision/Final Tests	C7 & C8 Final Test
2	20 Oct	Revision	
3	27 Oct	Revision	)
4	3 Nov	Revision	
Exams begin (Monday 10th November) - Exams end (Thursday 20th November)			

*Please note: dates and assessments are subject to change.

ASSESSMENT

Criterion-based assessment helps students see how well they're meeting course outcomes at the end of their study. While there is continuous feedback to guide learning, final assessments focus on showing what students have achieved by the end. Ratings are given as 'A', 'B', or 'C', based on course standards. A 't' indicates partial achievement below a 'C', and a 'z' means no evidence provided.

Schools follow TASC's quality assurance to keep standards consistent. More details are on the [TASC website](#). Final awards are based on both internal and TASC-supervised external assessments.

Criteria

The assessment for *Physics* Level 4 will be based on the degree to which the learner can:

- 1. demonstrate personal skills to plan, organise and complete activities
- 2. develop, interpret and evaluate physics experiments
- 3. collect, process and communicate information
- 4. demonstrate understanding of the application and impact of physics in society
- 5. identify and apply principles of Newtonian mechanics including gravitational fields*
- 6. identify and apply principles and theories of electricity and magnetism*
- 7. identify and apply general principles of wave motion*
- 8. identify and apply principles of the wave-particle nature of light, atomic and nuclear physics and models of the nucleus and nuclear processes*

* = denotes criteria that are both internally and externally assessed

Award Requirements

The final award will be determined by the Office of Tasmanian Assessment, Standards and Certification from the 12 ratings (8 from the internal assessment, 4 from the external assessment).

The minimum requirements for an award in *Physics* Level 4 are as follows:

EXCEPTIONAL ACHIEVEMENT (EA)

10 'A' ratings, 2 'B' ratings (3 'A' ratings, 1 'B' rating from external assessment)

HIGH ACHIEVEMENT (HA)

4 'A' ratings, 5 'B' ratings, 3 'C' ratings (1 'A' rating, 2 'B' ratings and 1 'C' rating from external assessment)

COMMENDABLE ACHIEVEMENT (CA)

6 'B' ratings, 5 'C' ratings (2 'B' ratings, 2 'C' ratings from external assessment)

SATISFACTORY ACHIEVEMENT (SA)

10 'C' ratings (3 'C' ratings from external assessment)

PRELIMINARY ACHIEVEMENT (PA)

6 'C' ratings

A learner who otherwise achieves the ratings for a CA (Commendable Achievement) or SA (Satisfactory Achievement) award but who fails to show any evidence of achievement in one or more criteria ('z' notation) will be issued with a PA (Preliminary Achievement) award.