

Outcomes	Marks allocated*	Assessment tasks
<p><b>Outcome 1</b></p> <p>Apply wave concepts to analyse, interpret and explain the behaviour of light.</p>	30	<p>At least one task (which is different from the task selected for Outcome 2) selected from:</p> <ul style="list-style-type: none"> <li>• annotations of at least two practical activities from a practical logbook</li> <li>• a report of a student investigation</li> <li>• a report of a physics phenomenon</li> <li>• data analysis</li> <li>• media analysis/response</li> <li>• design, building, testing and evaluation of a device or physical model</li> <li>• an explanation of the operation of a device or physical model</li> <li>• a proposed solution to a scientific or technological problem</li> <li>• a response to structured questions</li> <li>• a reflective learning journal or blog related to selected activities or in response to an issue</li> <li>• a test (short answer and extended response) (approximately 50 minutes or not exceeding 1000 words for each task)</li> </ul>
<p><b>Outcome 2</b></p> <p>Provide evidence for the nature of light and matter, and analyse the data from experiments that support this evidence.</p>	30	<p>Response to stimulus material. At least one task (which is different from the task selected for Outcome 1) selected from:</p> <ul style="list-style-type: none"> <li>• annotations of at least two practical activities from a practical logbook</li> <li>• a report of a student investigation</li> <li>• a report of a physics phenomenon</li> <li>• data analysis</li> <li>• media analysis/response</li> <li>• design, building, testing and evaluation of a device or model</li> <li>• an explanation of the operation of a device or model</li> <li>• a proposed solution to a scientific or technological problem</li> <li>• a response to structured questions</li> <li>• a reflective learning journal or blog related to selected activities or in response to an issue</li> <li>• a test (short answer and extended response) (approximately 50 minutes or not exceeding 1000 words for each task)</li> </ul>
<p><b>Outcome 3</b></p> <p>Design and undertake a practical investigation related to waves, fields or motion, and present methodologies, findings and conclusions in a scientific poster.</p>	35	<p>Structured scientific poster according to VCAA template. (not exceeding 1000 words)</p>
<b>Total marks</b>	<b>95</b>	

\*School-assessed Coursework for Unit 4 contributes 19 per cent.

### Practical work and assessment

Practical work is a central component of learning and assessment. As a guide, between 3½ and 5 hours of class time should be devoted to student practical work and investigations for each of Areas of Study 1 and 2. For Unit 3, between 7 and 10 hours of class time should be devoted to the investigation, related to waves, fields or motion, to be undertaken in either Unit 3 or Unit 4, or across both Unit 3 and Unit 4, including writing of the sections of the scientific poster.

## External assessment

The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination.

### Contribution to final assessment

The examination will contribute 60 per cent.

## End-of-year examination

### Description

The examination will be set by a panel appointed by the VCAA. All the key knowledge that underpins the outcomes in Units 3 and 4 and the cross-study key science skills are examinable.

### Conditions

The examination will be completed under the following conditions:

- Duration: 2.5 hours.
- Date: end-of-year, on a date to be published annually by the VCAA.
- VCAA examination rules will apply. Details of these rules are published annually in the [VCE and VCAL Administrative Handbook](#).
- The examination will be marked by assessors appointed by the VCAA.

### Further advice

The VCAA publishes specifications for all VCE examinations on the VCAA website. Examination specifications include details about the sections of the examination, their weighting, the question format/s and any other essential information. The specifications are published in the first year of implementation of the revised Units 3 and 4 sequence together with any sample material.