

# CfE Advanced Higher Physics

The recommended entry for Advanced Higher Physics is an A or B in Higher Physics. The course is designed for learners who can respond to a high level of challenge and will require a significant amount of independent learning. It is designed to help prepare learners for further study or a career in Physics.

**Advanced Higher Physics** covers four units:

- Rotational Motion & Astrophysics
  - Quanta and Waves
  - Electromagnetism
  - Investigating Physics
- The content of the course is that prior knowledge from Higher is needed for the Advanced Higher units.
- Each unit is assessed individually and marked internally (and can be externally verified), in the form of a unit test on course content and problem solving.
- At Advanced Higher
- all units + externally marked project + externally marked final exam = **course grade**
    - **We will not put a pupil forward for the final exam at Advanced Higher without being confident we have the evidence required to support an award at Advanced Higher.**

## The Project

- The Project covers 30 marks of the total 130 available for this course. Pupils will be guided to select a project that is matched to the Advanced Higher course, to ensure all pupils can achieve in terms of challenge, breadth and application.
- Class time will be given to pupils within the year and this will be completed prior to the deadline before Easter holidays. Pupils will have this filed for uplift. A copy will also be held (in case required).

## The prelim

- The prelim is created to challenge pupils at Advanced Higher, It will form an important piece of evidence for final decisions on presentations, as well as give an essential opportunity to revise and deal with issues in content. Most of the revision will need to be done outside of class time.
- It will be a 2hr 30min prelim; with 140 marks Short Answer Questions, the total marks are scaled back to 100, to simulate the real conditions within the exam.
- It will cover 2 full units content, with the 3<sup>rd</sup> unit being assessed in a mini-prelim later in the year. Problem Solving questions will also be in the prelim.

## Resources

- In school, in addition to normal class time, after school study is running on Monday, Tuesday and Thursday 3.30-4.30pm. **To gain an award in Physics, study out with the classroom is required. At least 6 hours a week of study is recommended to ensure the standard required is met. Homework is an integral part of the course allowing both the pupil and teacher to assess if progress is being made. Formal homework will be given once a week and will take a variety of forms.**

- Since there has not been a prior exam, there are no past papers available but there is a specimen paper. However, old advanced higher papers can be made available to the pupils for practice.
- Revision websites
  - HyperPhysics - <http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html>
  - BBC Bitesize - <http://www.bbc.co.uk/education/subjects/z6fsgk7>
  - Mr Marshallsay's Physics Site - <http://smarshallsay.weebly.com/national-5.html>
  - Mr MacKenzie's Physics Site - <http://mrmackenzie.co.uk/category/national-5>

**Assessment Dates:**

The dates below represent an approximate timeline for course assessments.

| <u>Week</u> | <u>Term</u>                      | <u>Assessment</u>   |
|-------------|----------------------------------|---|
| 2           | June                             |   |
| 4           |                                  |   |
| 15          | Term 1:<br>August -<br>October   |   |
| 16          |                                  |   |
| 17          |                                  | <b>Advanced Higher End of Unit Tests – Rotational Motion and Astrophysics</b> |
| 18          |                                  |   |
| 19          |                                  |   |
| 24          | Term 2:<br>October -<br>December |   |
| 25          |                                  |   |
| 27          |                                  | <b>Advanced Higher End of Unit Test – Quanta and Waves</b>                    |
| 28          |                                  | <i>Investigating Physics Unit</i>   |
| 29          |                                  | <i>Investigating Physics Unit</i>   |
| 33          | Term 3:<br>January -<br>April    |   |
| 34          |                                  |   |
| 35          |                                  |   |
| 36          |                                  | PRELIMS   |
| 37          |                                  |   |
| 38          | Term 3:<br>January -<br>April    |   |
| 40-41       |                                  | <b>Project Deadline</b>   |
| 42          |                                  | <b>Advanced Higher - End Of Unit Test – Electromagnetism</b>                  |
| 49          |                                  |   |
| 50          |                                  |   |
| 51          |                                  |   |
| 52          |                                  |   |

<http://www.sqa.org.uk/sqa/41615.html> link for SQA personal exam timetable builder