

National 4/5 Physics

- During S1 - S3 pupils worked through a Broad General Education encompassing Biology, Chemistry, Environmental Science and Physics topics through level 3 and 4 CfE outcomes. During S4 three units in Physics at Nat 4/5 are completed are: *Dynamics & Space, Energy & Electricity & Waves & Radiations*.
- The content of the course is that prior knowledge from National 4 is needed for the National 5 units.
- Each unit is assessed individually and marked internally (and can be externally verified). There are three parts to the assessment, all must be passed to attain the unit:
 - o *A practical experiment and write up*
 - o *A research task and short report*
 - o *A test on content and problem solving*
- At National 3 – all units = **a course award**
- At National 4 – all units + an added value unit (internally assessed) = **course award**
- At National 5 – all units + externally marked assignment + externally marked final exam = **course grade**
 - o **We will not put a pupil forward for the final exam at National 5 without being confident we have the evidence required to support an award at National 5.**

The added value/assignment

- The assignment that has been selected has been matched to the National 4 added value to ensure all pupils can complete the course without having to do 2 assessments.
- Some class time will be given to within the year and this will be completed prior to the deadline before Easter holidays. Pupils going forward to National 5 will have this filed for uplift. A copy will also be held (in case required) for National 4 evidence for added value.

The prelim

- The prelim is pitched at National 5, so pupils where there is already a definite decision to complete at National 4 will not be expected to do the prelim. 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 prelim, 80 marks; 20 marks Multiple Choice and 60 marks Short Answer Questions.
- It will cover 2 full units content, with the 3rd 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 3 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 assess if progress is being made. Formal homework will be given once a week and will take a variety of forms.**
 - o Since there has only been 2 prior exams, there are 2 specimen papers and 2 past papers fully on National 5. However, standard grade, intermediate and higher papers can be made available to the pupils for practice.
 - o 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:

<u>Week</u>	<u>Term</u>	<u>Assessment</u>
2	June	N4 & N5 Key Area Tests (N4 - Speed and Acceleration) (N5 - Velocity and displacement - vectors and scalars, Velocity/Time Graphs, Acceleration)
4		N4 + N5 Key Area Tests (N4 - Relationships between Forces, Motion and Energy) (N5 - Newton's Laws & Projectile Motion)
15	Term 1: August - October	N4 & N5 Key Area Tests (N4 - Satellites and Cosmology) (N5 - Space Exploration & Cosmology)
16		National 4&5 End of Unit Tests - Dynamics and Space
17		N5 Key Area Test - Conservation of Energy
18		Key Area Test (N4 - Generation of Electricity, Electromagnetism) (N5 - Electrical Charge Carriers and Electric Fields)
19		Key Area Tests (N4 - Practical electrical and electronic circuits) (N5 - Ohm's Law, Practical electrical and electronic circuits)
24	Term 2: October - December	Key Area Tests (N4 - Practical electrical and electronic circuits) (N5 - Ohm's Law, Practical electrical and electronic circuits) Key Area Test (N4 - Electrical Power) (N5 - Electrical Power)
25		Key Area Test (N5 - Specific Heat Capacity)
27		Key Area Tests (N4 - Gas Laws and the Kinetic Model) (N5 - Gas Laws and the Kinetic Model)
28		N4 & N5 End of Unit Test - Electricity and Energy
29		2.2 - 2.3 Assessment - Practical Electrical and Electronic Circuits.
33	Term 3: January - April	Key Area Tests (N4 - Wave Characteristics, Sound) (N5 - Wave parameters and behaviours)
34		Key Area Tests (N4 - EM Spectrum) (N5 - EM Spectrum, Light)
35		2.2 - 2.3 Assessment - EM Spectrum
36		PRELIMS
37		
38	Term 3: January - April	Finalisation of Outcome 1
41		Key Area Tests (N4 - Nuclear Radiation) (N5 - Nuclear Radiation)
42		N4 & N5 - End Of Unit Test - Waves and Radiation
49		SQA EXAMS - PHYSICS - 24TH MAY
50		
51		
52		