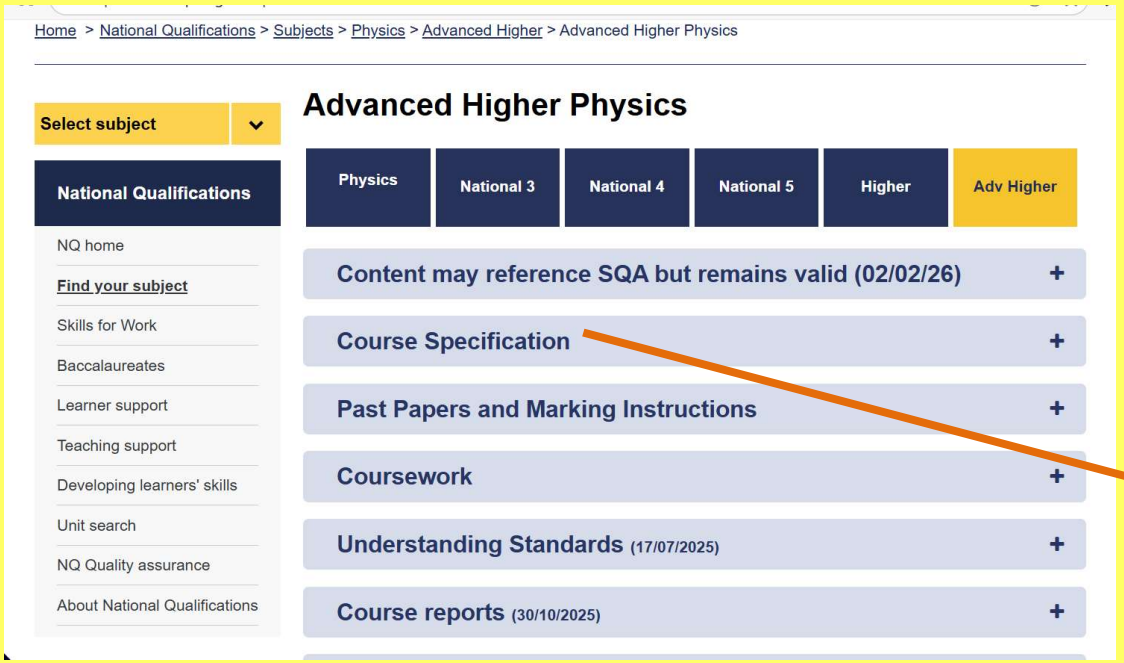
Supporting Pupils @ Home

2025-2026

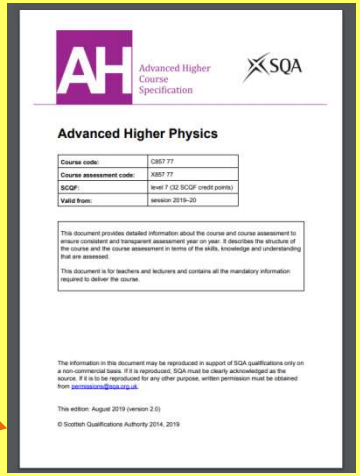
Advanced Higher Physics

Course Information … the official SQA stuff

The Advanced Higher Physics page on the SQA website… [Advanced Higher Physics - Course overview and resources - Qualifications Scotland]



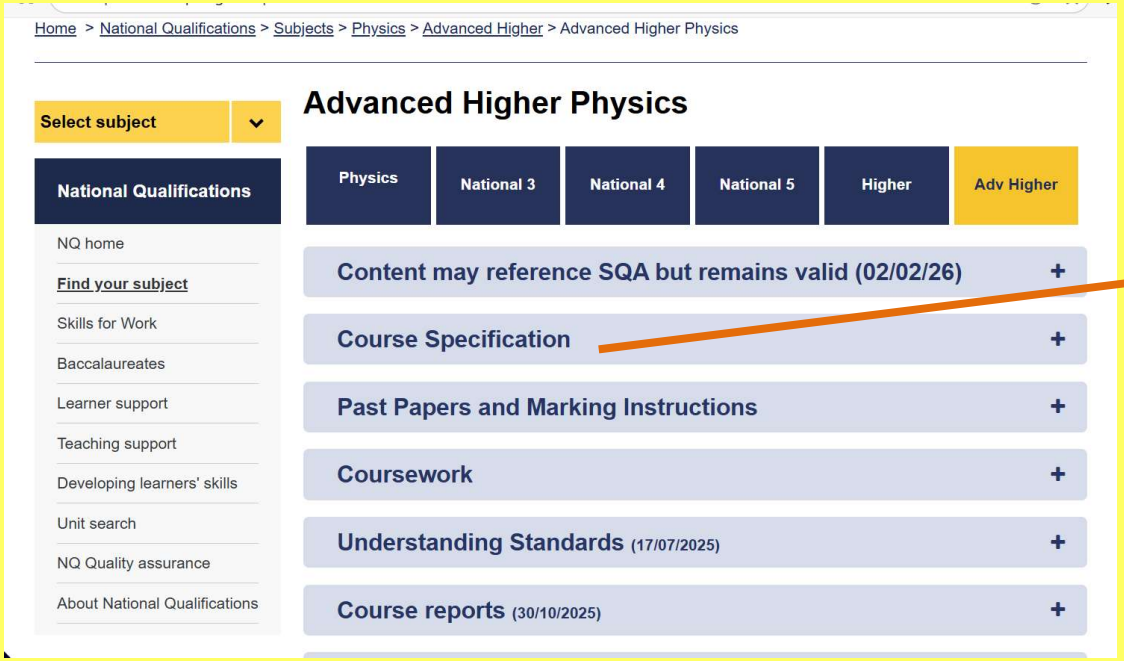
… has a link to the **Course Specification**, which has details of the course structure and content.

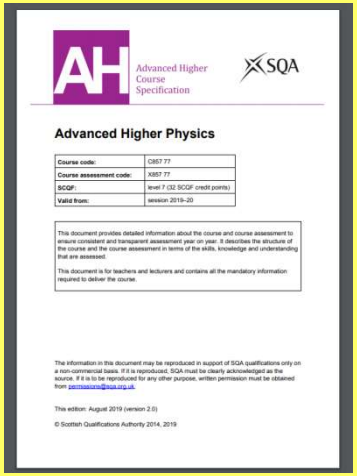


It also has a link to **Past Papers**, and the **Marking Instructions** for those.
It also has a link to detailed info' on the **Project (aka Coursework)**
It also has a link to the separate SQA **Understanding Standards** website.
These are all extremely valuable resources that will help your child progress, and in preparing for their Advanced Higher course assessment.

Course Information … Course Specification

The **Course Specification** doc' has the details of all the theory covered in the Course – everything your child needs to learn ! …
AHPhysicsCourseSpec.pdf



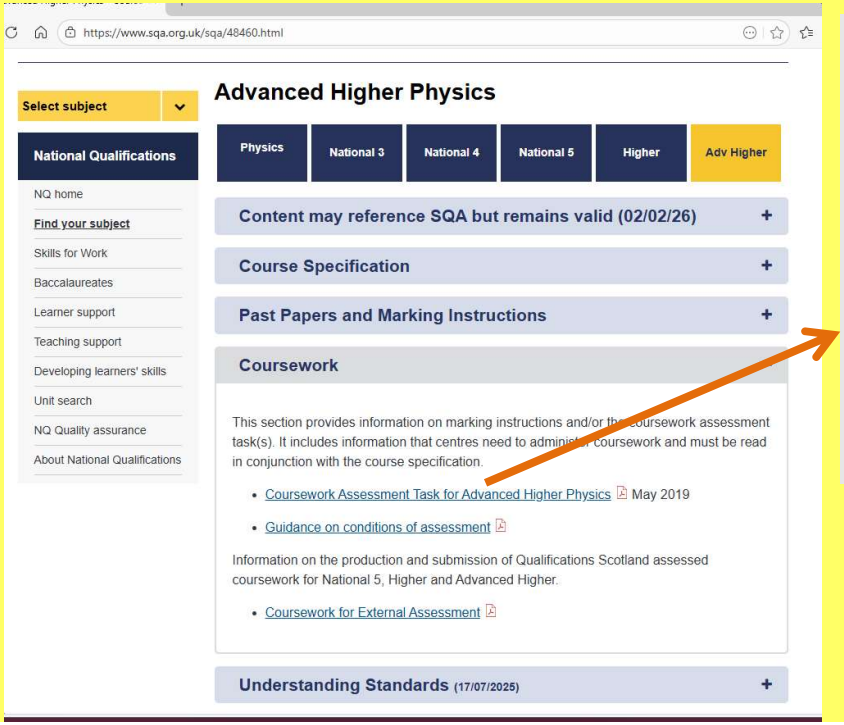


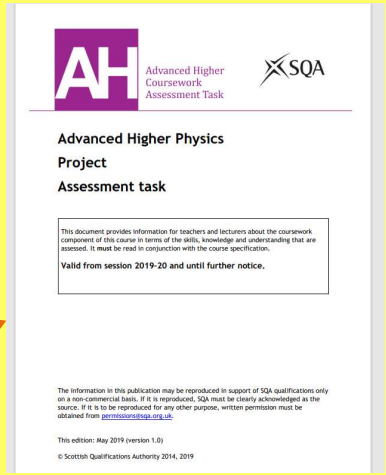
… look at the **Mandatory Content** statements on p37 - 74.

It also has an *outline* of what's involved for the **Project on p27 - 32** … although much better info' about that is in another doc' called **Coursework (Project) Assessment Task** – see next slide.

Course Information … Project

The **Project** is worth 25 % of the overall Course Award (…the Exam is the other 75%) – so it's an important thing !





Full info' about what needs to be done for this is explained in the doc' called **Coursework Assessment Task**, or/and **Project Assessment Task**, which is in the **Coursework** section.

Advanced Higher Physics CAT

Details of what needs to be done for the Project **Report**, including the specific formatting of some parts, is given in the **Instructions for Candidates** section on p17-29. It's important to read the info' on the 'Volume' of the Report on p7, highlighting the expected 'word count'.
Students should read carefully through the **Detailed Marking Instructions** on p9-16, which tells them what they need to do to gain each of the full 30 Marks.
It's usually very beneficial to submit their Report for staff to read and give feedback on – that should be at least 2 weeks before final submission.

SQA's Understanding Standards website …

This website… Qualifications Scotland - Understanding Standards: About this website… has **real** examples of *why* some answers got the Marks they did,

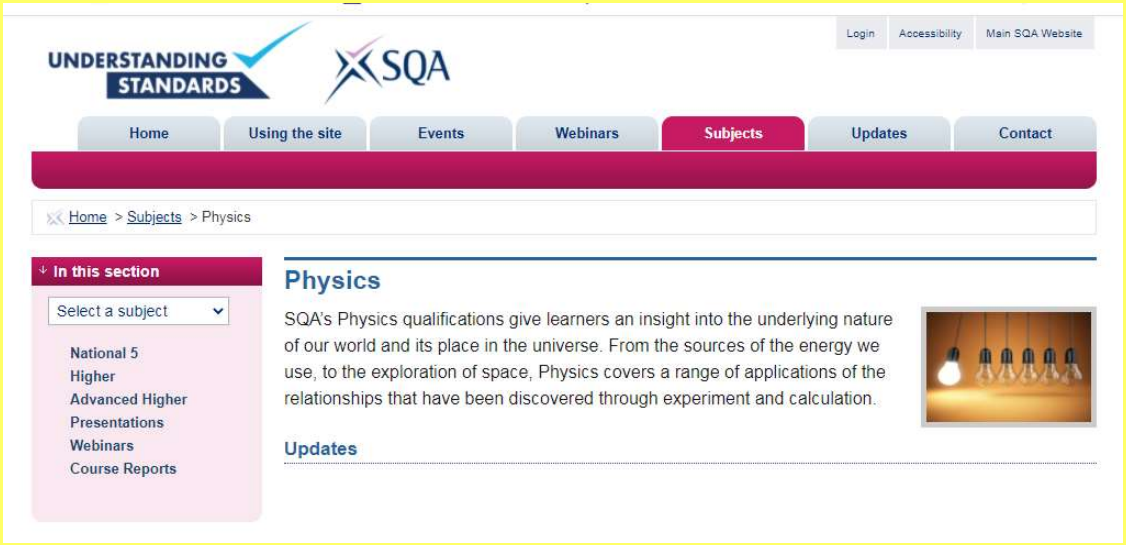
… and perhaps more usefully, *reasons* why other answers *didn't* get the Marks … so this is a great place to '*understand the standards*' i.e. to see examples of the level of detail that the SQA expect pupils to give in their Exam answers …

… which is a very useful thing to be aware of.

The next slide describes the two main, different types of pupil 'evidence' that's included - and how best to use that evidence.

SQA's Understanding Standards … Physics

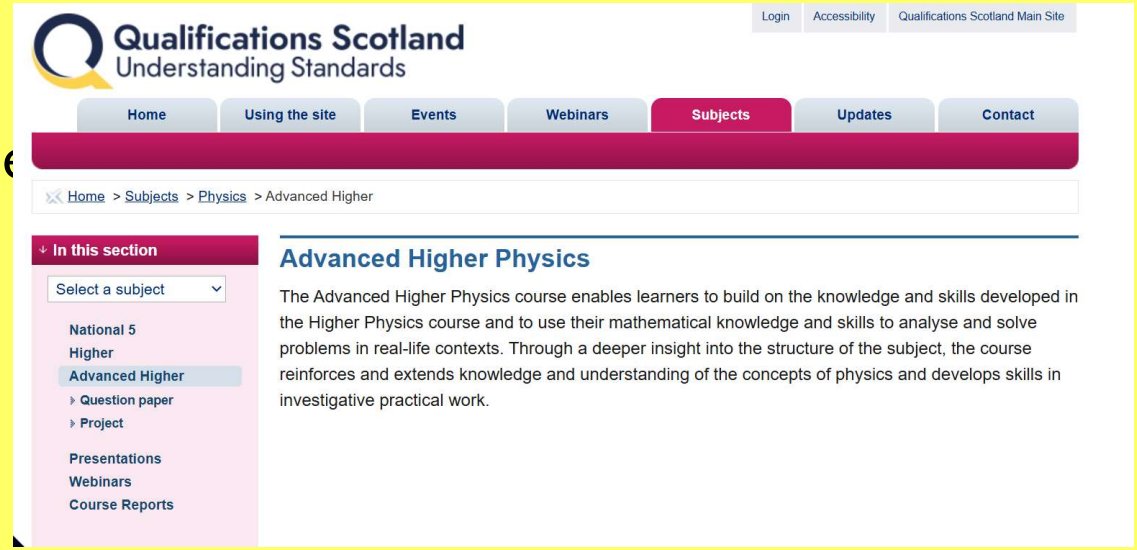
The Physics page on the Understanding Standards website… Qualifications Scotland - Understanding Standards: Physics … has links to the sample data for each Course, which gives examples of pupil's responses, called **Candidate Evidence,** for both the **Exam Questions** as well as for **Project Reports.**



The next slide describes how best to use the Candidate Evidence …

Understanding Standards … Ad.H Physics

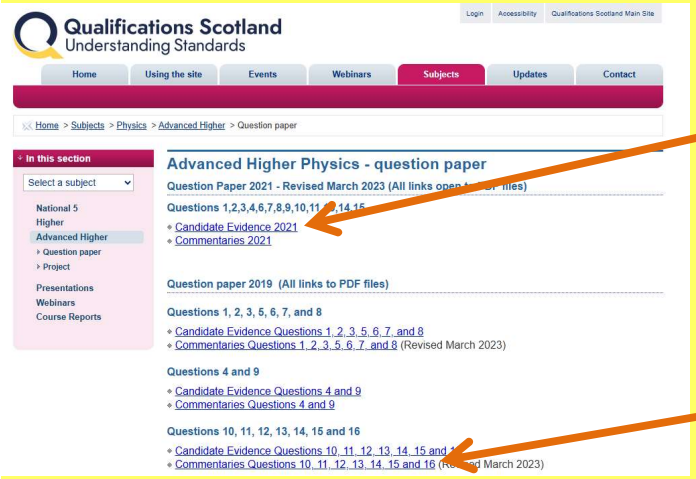
The Advanced Higher Physics page on the Understanding Standards website… Qualifications Scotland - Understanding Standards: Advanced Higher



… has links to sample data which gives pupil's responses, called **Candidate Evidence,** for both the **Exam Questions** as well as for **Project Reports.**

The next slide describes how best to use the Candidate Evidence …

Understanding Standards … getting the best use of it



First, look at **Candidate Evidence** for some Questions, and use the Marking Scheme for those particular questions (which can be found in various places) and ***you*** Mark them.

Then look at the **Commentary**, which shows you what Marks the SQA actually gave those same Questions … doing that will let you see how well *you* have understood the level of detail needed in the answers.

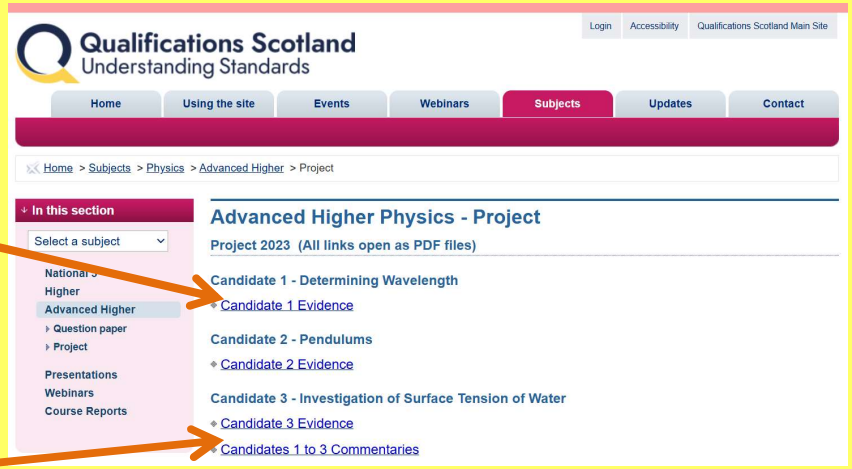
Then, read through the *comments* in the **Commentary** to understand *why* the SQA did, or did not, give the Marks for each of the Questions.

Doing that will give you more confidence to be able to give good, 'full' answers in the Exam – and to let you achieve the most Marks ☺

The next slide is about the Project Report info' in Understanding Standards …

Understanding Standards … in the Project Report

Again, first of all, look at some **Candidate Evidence** for some of the samples of Project Reports, and use the **Detailed Marking Scheme** to *Mark* them.



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Then, as with the Questions evidence, look at the **Commentary**, which Shows you what Marks the SQA actually gave those same Project Reports,
… doing that will, again, let you see how well *you* have understood the level of detail needed in the different sections of the Project Report.

Then, as before, read through the *comments* in the **Commentary** to understand *why* the SQA did, or did not, give the Marks for each of the sections of the Project Report.

Key Resources … issued by the class teacher

Each **Unit** and **Topic** has the resources listed below:

1. **Learning Outcome Checklist** – a more 'pupil friendly' version of the SQA **Course Specification**, **Mandatory Content**
2. **Teacher / class notes** – 'live' notes plus hand-out notes covering all the course content
3. comprehensive **Summary Notes** and **HW booklets**
4. **Topic Tests –** based on SQA Past-Paper questions, to support consolidation of knowledge and progress
5. **Virtual Physics** – a great set of digital Course notes … *see below*
6. **SCHOLAR** - Notes & check-tests … *see below*
7. **Textbooks** that covers the full course … available on request.

All the resources are available in paper format as well as in digital format in the class Team, available via the i-pad

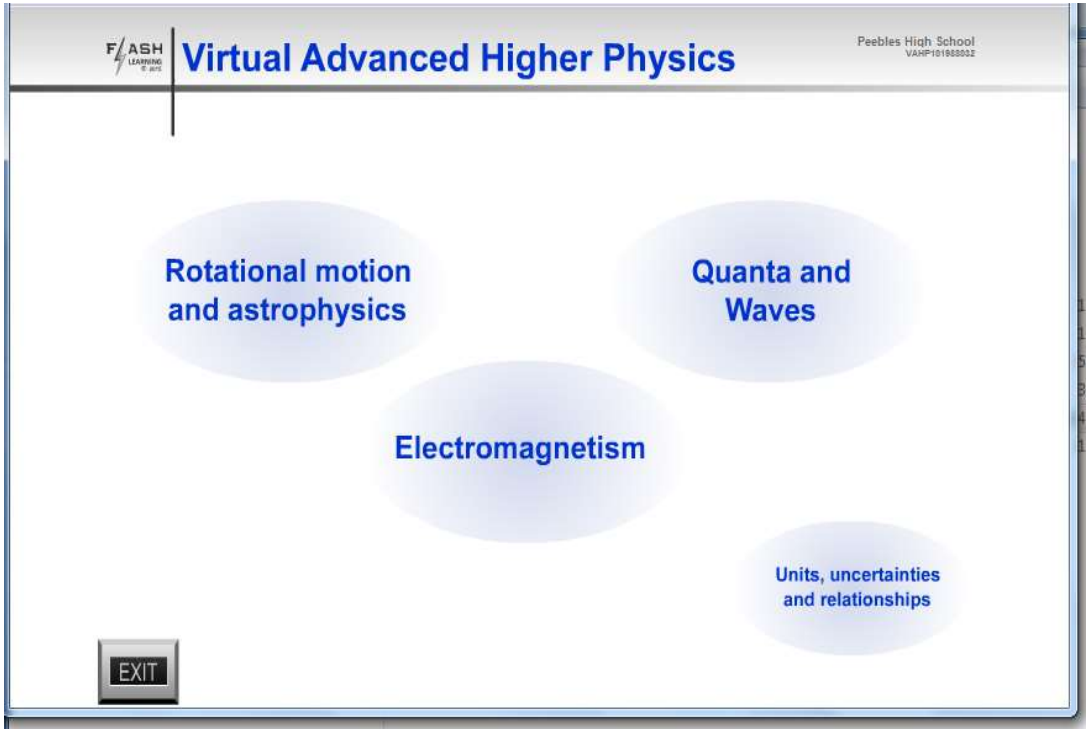
Additional Resources … for support @ home

SCHOLAR

Pupils have access to this via their **Glow Login** details. This excellent resource is full of detailed notes, activities, simulations, practice questions and tests for the whole Course

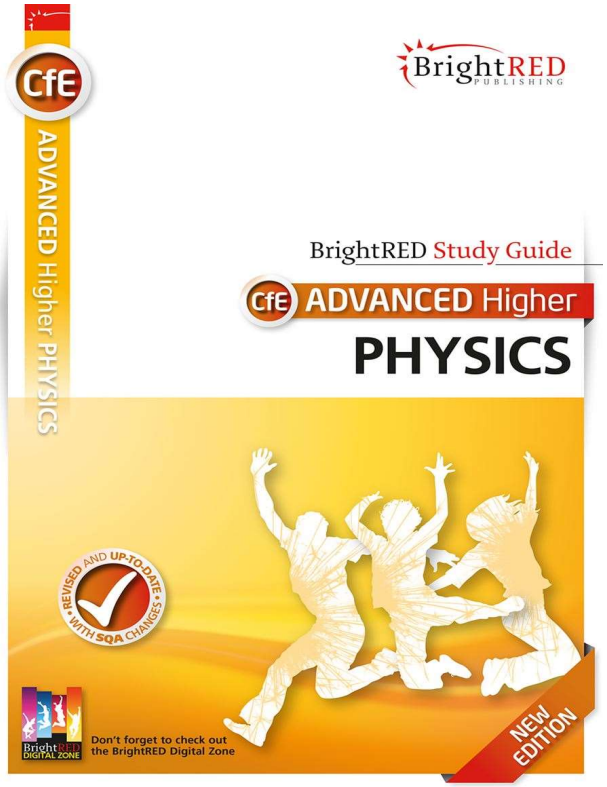
This video is a helpful user guide for Higher pupils (and parents / carers)
Scholar User Guide - Pupils

Additional Resources … for support @ home



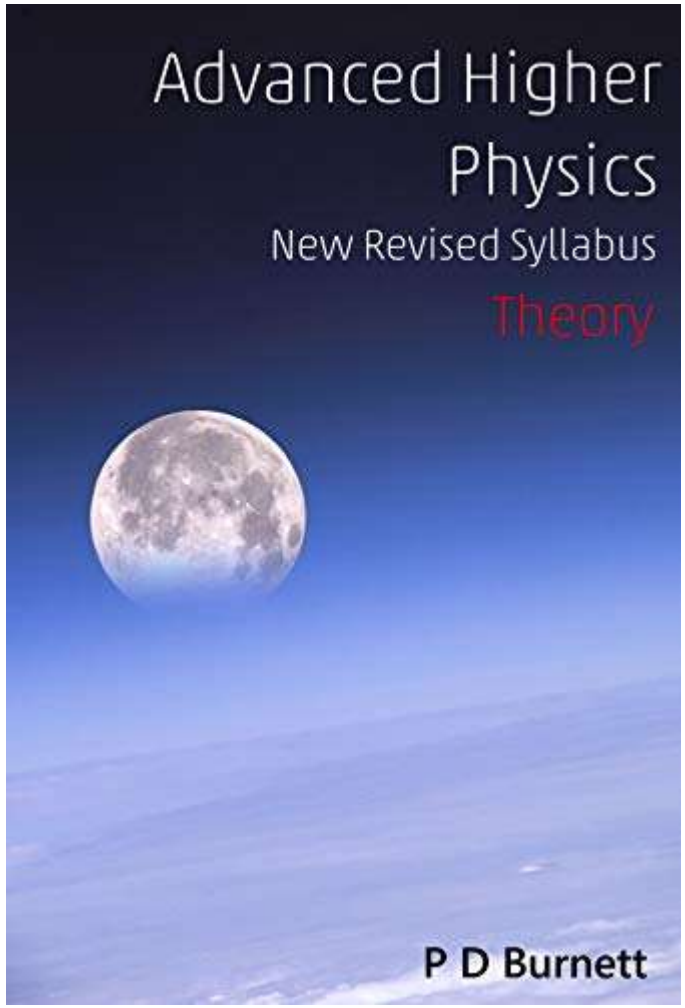
Every pupil has access to this fantastic digital resource, which has excellent learning notes, animations, worked examples, interactive summary sections that cover the full content of the Course Advanced Higher Physics - physicsflashrepo .
They are encouraged to make regular use of this, along with SCHOLAR, at home.

Additional Resources … for support @ home



Every pupil has access to a copy of the Bright Red Study Guide for Advanced Higher Physics for use throughout the year. This book also has a complimentary website, '**Bright Red Digital Zone**', with activities, videos and quizzes which can be accessed by clicking here Bright Red Digital

Additional Resources … for support @ home



Every pupil has access to a copy of this excellent book, which covers all the Course, in depth – along with some extension material too, for those with a keen interest and those who like to have a fuller, wider understanding of the content.

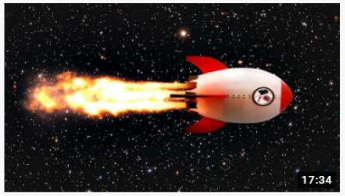
There is also a separate book which has literally hundreds of excellent questions, with worked solutions, for a keen student to work on.

A third book covers the 'essential guide' to the Project.

All are available to borrow from the school, or can be purchased.

Additional Resources … for support @ home

YouTube

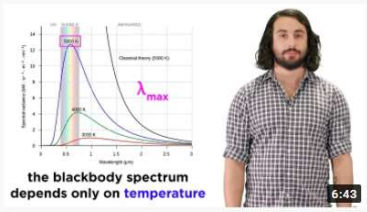


Why Gravity is NOT a Force
4.1M views • 1 month ago
Veritasium
The General Theory of Relativity tells us g
tend to move on straight paths ...
4K Subtitles

https://www.youtube.com/watch?v=XRr1kaXKBsU

The Heisenberg Uncertainty Principle Explained Intuitively
146K views • 2 years ago
Up and Atom
Use this link for 2 months of unlimited access to over 20000 classes FREE: https://
An intuitive explanation of ...

https://www.youtube.com/watch?v=qwt6wUUD2QI&t=31s



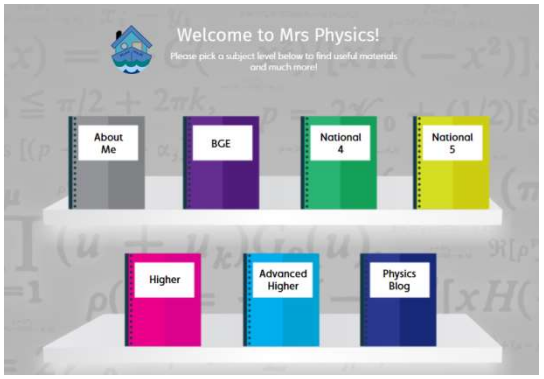
Quantization of Energy Part 1: Blackbody Radiation and the Ultraviolet Catastrophe
415K views • 3 years ago
Professor Dave Explains
So we know that physics got turned upside down at the turn of the 20th century, but begin? What was the first thing ...
Subtitles

https://www.youtube.com/watch?v=7BXvc9W97iU&list=PLybg94GvOJ9FAFBqQGf5-4YbfKpWbJtGn&index=2

There are many, excellent, short videos that help explain some of the tricky, theoretical ‘thought experiments’ in ways that can really help understanding

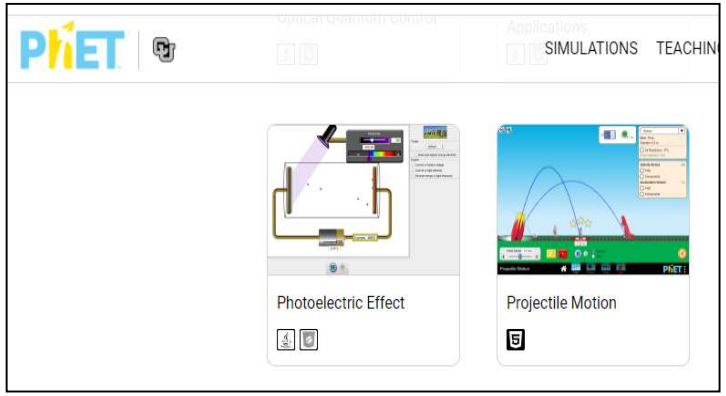
Additional Resources … for support @ home

Mr MacKenzie – Ad.Higher – fizzics



Mrs Physics

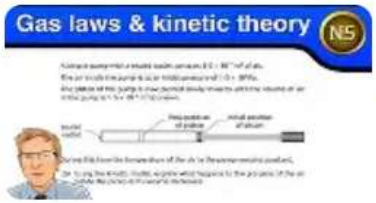
Physics Scotland - Steven Wilkinson - YouTube



Filter - PhET Simulations

Pupils have access to a range of excellent web-sites that have been developed by Physics teachers across Scotland, bringing together a vast collection of resources specifically tailored for Advanced Higher Physics.
Specific web-site details are available from the Physics teachers, if need be – with a few of the 'best' highlighted here and on the next slide …

Additional Resources … for support @ home



National 5 Physics - Gas laws & kinetic...
YouTube · Mr Smith's...
5.9K views · 26 Nov...

[Mr Smith's Physics - Bing Videos]

mrstewartphysics
@mrstewartphysics · 2.19K subscribers · 178 videos
Physics Teacher. Calderglen High School East Kilbride. Uploading demos of practical ...more
calderglenhs.greenhousecms.co.uk/Curriculum/Physics
Subscribe

[Mr Stewart Physics - YouTube]

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National 5 Physics | Space |...
YouTube · The Physi...
1.6K views · 10...

National 5 Physics | Radiation | Detecti...
YouTube · The Physi...
562 views · 30 Sep...

Welcome to The Physics Academy!...
YouTube · The Physi...
4.6K views · 12 Aug

[Mr Mitchell's Physics aka The Physics Academy - Bing Videos]

Support … for support @ home

So *how* can you support your child at home ?

- If you understand some of the theory / content :
  - ask them questions about the Topic they're working on
  - help them get good use of the resources mentioned above
  - check some of their work that they're doing
- Even if you don't understand the content :
  - ask them questions
    - what's going well
    - is there anything you need help with ?
    - do you need to speak with your teacher ?
- **You can always encourage them to :**
  - revise & summarise their notes, regularly
  - do lots of questions, including their HW and Past Papers
  - make their notes/work 'meaningful', with enough detail
  - take advantage of **Study Support Sessions offered in school** …to get extra support with questions and/or the theory
  - be pro-active in asking for help … or just for reassurance !
- Please contact the Physics staff for any more information.