

## A Level Physics

In physics we study the smallest through to the largest scales of the Universe to explain natural phenomena such as the structure and nature of matter, waves, the motion of objects and the way they interact, gravitational, electrostatic and magnetic fields and material behaviour. You will also develop practical knowledge and skills to enable you to develop investigations to test theories and hypotheses using a range of equipment.

We follow the AQA specification which you can view following the link below.

<https://filestore.aqa.org.uk/resources/physics/specifications/AQA-7407-7408-SP-2015.PDF>

The topics we will study include:

- Particles and radiation
- Waves
- Mechanics and materials
- Electricity
- Further mechanics and thermal physics
- Fields and their consequences
- Nuclear physics

## Careers using A Level Physics

**IOP** Institute of Physics [Click on the link below to find out about careers that A Level physics can lead to](http://www.iop.org/careers/i-am-at-school-college/index.html)

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## A Level Physics transition

You will need to complete three pieces of work before you start the course:

- 1) At least two topics from ISAAC physics GCSE questions. Please screen shot your answers.
- 2) A presentation
- 3) Some paper-based questions which you will be given once you have enrolled on the course.

Below are some links that will help you with the first two tasks.



GCSE Physics Online have a pre A level section. This is useful if you are not confident with your GCSE knowledge.



<https://www.gcsephysicsonline.com/pre-a-level>

Isaac Physics is a website run by Cambridge University. You will be encouraged to use this website throughout your A level study. You can make a start now by setting up an account and completing at least two sets of the GCSE questions.



<https://isaacphysics.org/>

## What fascinates you?

Prepare a presentation on an area of physics that fascinates you.

Use this website to help you think about what makes an effective presentation

<https://www2.le.ac.uk/offices/ld/all-resources/presentations/delivering-presentation>

Below are some resources you could use as a starting point.



<https://www.youtube.com/channel/UCHnyfMqiRRG1u-2MsSQLbXA>



<https://www.youtube.com/channel/UCUHW94eEFW7hkUMVaZz4eDg>



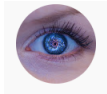
<https://www.youtube.com/channel/UCvBqzzvUBLcs8Y7Axb-jZew>



<https://www.youtube.com/channel/UCP16wb-IThCVvM8D-Xx8HXA>



<https://www.youtube.com/channel/UCYeF244yNGuFefuFKqxlAXw>



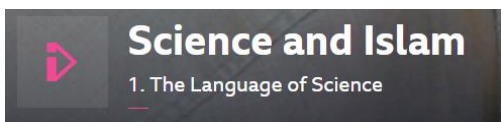
<https://www.youtube.com/channel/UCYNbYGI89UUowy8oXkipC-Q/featured>



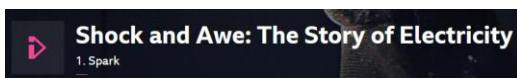
<https://www.youtube.com/user/CERNTV>



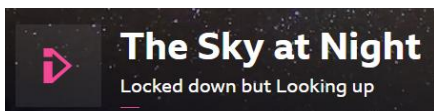
<https://www.bbc.co.uk/iplayer/episode/b09t9txy/from-ice-to-fire-the-incredible-science-of-temperature-series-1-3-playing-with-fire>



<https://www.bbc.co.uk/iplayer/episode/b00gksx4/science-and-islam-1-the-language-of-science>



<https://www.bbc.co.uk/iplayer/episode/p00kjq6h/shock-and-awe-the-story-of-electricity-1-spark>



<https://www.bbc.co.uk/iplayer/episode/m000j45f/the-sky-at-night-locked-down-but-looking-up>



<https://phys.org/>



<https://medicalxpress.com/>



<https://techxplore.com/>



## Qubit

[http://www.iop.org/education/student/youth\\_membership/page\\_41684.html](http://www.iop.org/education/student/youth_membership/page_41684.html)



<https://www.bbc.co.uk/programmes/b00snr0w/episodes/downloads>

## physicsworld

<https://physicsworld.com/a/introducing-physics-world-weekly-podcast/>



<https://www.iheart.com/podcast/105-daniel-and-jorge-explain-t-29862087/>