

# Get ready for Physics

## About the subject

The topics studied will build on prior learning at GCSE level and will delve much deeper to cover a whole range of fundamental physics concepts, and how they apply to different areas to make the content interesting, all while developing your skills to breakdown problems.

The main topic areas studied are: Understanding measurement and uncertainties, developing practical skills and data analysis, motion in 3-D, dynamics, energy and the study of thermodynamics, material properties, Newtonian mechanics, particle motion, electricity, capacitance, wave properties and superposition, quantum physics, nuclear behaviour and subatomic research, kinetic theory, field dynamics: electric, magnetic and gravitational, astrophysics and cosmology, induction and medical imaging techniques.

## Your tasks

Please use the link below to find the first of the two transition booklets:

Physics transition pack

[<https://www.barnsleysixthformcollege.co.uk/app/uploads/2020/05/1.Physics-transition-pack.pdf>]

Download the document and read through before attempting the four tasks in the booklet. This will give you a good taster of some of the main topics that will be taught in A-Level Physics as well as building on the skills you will need to succeed.

## Essential reading

Thoroughly review your Physics notes and any text books you have from GCSE Science, this will give you a strong foundation for studying A Level Physics – details matter.

Browse through the A Level Physics Specification to get a better idea of what you will be studying:

<https://www.ocr.org.uk/qualifications/as-and-a-level/physics-a-h156-h556-from-2015/specification-at-a-glance/> [[https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fwww.ocr.org.uk%2fqualifications%2fas-and-a-level%2fphysics-a-h156-h556-from-2015%2fspecification-at-a-glance%2f&c=E,1,E3EphF-oyD35-8lp58Qt8xyV0n3NGo0XAqmv88RKwHTHIXb4rW8qUl9ws2MGLaFyFFvoFtol9oGECsgpqblV04LO6u6w\\_osZH\\_o5vIcusL5cuNgyFeQ,&typo=1](https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fwww.ocr.org.uk%2fqualifications%2fas-and-a-level%2fphysics-a-h156-h556-from-2015%2fspecification-at-a-glance%2f&c=E,1,E3EphF-oyD35-8lp58Qt8xyV0n3NGo0XAqmv88RKwHTHIXb4rW8qUl9ws2MGLaFyFFvoFtol9oGECsgpqblV04LO6u6w_osZH_o5vIcusL5cuNgyFeQ,&typo=1)]

## Useful websites and other resources

- Physics World [<https://physicsworld.com/l/videos/>]
- The Naked Scientists [<https://www.thenakedscientists.com/>]
- YouTube – User: Veritasium [<https://www.youtube.com/user/1veritasium>]
- You will be required to buy a text book for this course, these will be available to buy at a

reduced price from college when your course begins.

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### **Any questions?**

Email us on [info@barnsley.ac.uk](mailto:info@barnsley.ac.uk)

Call us on **01226 216 123**