

Step up to A-Level Physics

This is a menu of tasks to help you get ready to study Physics at A-Level. Try to choose a 'balanced diet' of activities each week to ensure variety in your learning. Keep your completed work organised in a folder so that you can submit your transition work during your first Physics lesson.



Short Video Clips (less than 10 minutes)

Each of these clips offers context for the course. Write down any key details they reveal or inferences you can make from them. List questions the clips raise that you would like to understand more about (aim for 3)?

Get Ready for A level Physics

<https://www.youtube.com/watch?v=Po7tSy2PV2w>



Nobel Prize in Physics

<https://www.youtube.com/watch?v=txlCvCSefYQ>



Year 11 to A level

<https://www.youtube.com/watch?v=w-fp1wSaog>



Longer Video Clips, Films or Documentaries

These videos will get you thinking even more about Physics issues. Select one video, record the key points of context or information that you found significant, alongside 5 subsequent questions that the video has spawned.

Quantum Physicis

<https://www.youtube.com/watch?v=blXN8TMaVUA>



Guide to Life

https://www.youtube.com/watch?v=q1_0kE8YFk8



The Most Misunderstood Concept in Physics

<https://www.youtube.com/watch?v=DxL2HoqLbyA&t=16s>



Programmes and Podcasts

There is a huge array of scientific radio programmes and podcasts available. If you do not have a podcast app, or cannot sign in to BBC Sounds, this would be your first thing to remedy. Below are a few stretching and informative programmes for you to enjoy. Make notes on ½ page of A4 about what you have learnt about the topic of each programme and which opinions you agree with and why.

StarTalk Radio

<https://startalkmedia.com/>



Physics World

<https://physicsworld.com/l/audio/>



Veritasium

<https://www.veritasium.com/>



Questions to Consider

The questions below are designed to get you thinking more broadly about some of the underlying issues within the course we study in Year 12. Choose a question and try discussing it with somebody else. Then write 500 words exploring different possible responses and explaining your own opinions.

What is the point of studying space?

What is the future of Quantum?

What did Einstein get wrong?



Debate

Task: Watch the below video between the host of Veritasium and a physics professor. Who do you think is right?



https://www.youtube.com/watch?v=yCsgoLc_fzI&t=488s

Summarise your thoughts.



What assumptions do they make?

Who's Right?

How does the Physics relate to Newton's Laws?



Books and Other Longer Reads

These books are excellent introductions to the themes we study in [Insert Subject]. They are available to buy and download as e-books, some of them are free!

Hitchhiker Guide to the Galaxy
Douglas Adams

A Brief history of Time
Stephen Hawking

Human Universe
Brian Cox

