

Year 11: Physics

Topics not fully covered as part of GCSE.

| Topic | Text book pages | Freescience videos | BBC Bitesize | Seneca | Kerboodle quizzes |
|------------------------------|-----------------|---|---|---|---------------------------|
| P13 Electromagnetic waves | 190 - 201 | https://www.freesciencelessons.co.uk/gcse-physics-paper-2/waves/ | https://www.bbc.co.uk/bitesize/topics/zcwkqdm | https://app.senecalearning.com/classroom/course/fe56ca00-05aa-11e8-9a61-01927559cfd5/section/0ea7b6b0-0823-11e8-9af8-abc41ec56055/session | P13 Kerboodle quizzes set |
| P14 Light | 202 - 213 | https://www.freesciencelessons.co.uk/gcse-physics-paper-2/waves/ | https://www.bbc.co.uk/bitesize/topics/zcwkqdm | | P14 Kerboodle quizzes set |
| P15 Electromagnetism | 214 - 231 | https://www.freesciencelessons.co.uk/gcse-physics-paper-2/magnetism/ | https://www.bbc.co.uk/bitesize/topics/z39ry4j | | P15 Kerboodle quizzes set |
| P16 Space | 232 - 243 | https://www.freesciencelessons.co.uk/gcse-physics-paper-2/space-physics/ | | Use the topic numbers at the left of the screen to access topic 6.4 onwards | P16 Kerboodle quizzes set |

Physics AQA A level preparation summer 2021

AQA Physics GCSE A level transition worksheet (attached).

Seneca Learning

<https://app.senecalearning.com/classroom/course/eb1a286f-2cf3-486d-a591-5494d8b256c7/section/6254010a-c9e2-477d-a457-2605b09d8af6/session>

Isaac Physics GCSE to A level transition – skills

A series of questions to develop your skills. Please note that Isaac doesn't provide answers, you have to keep persevering!

https://isaacphysics.org/gameboards#gcse_alevel_transition_skills

General good stuff:

A great physics communicator is Richard Feynman. His books include:

- Surely you're joking Mr Feynman
- What do you care what other people think
- QED

There's a great documentary on iPlayer entitled "The joy of finding things out" and I'd also read his paper explaining energy https://www.feynmanlectures.caltech.edu/I_04.html

Others to consider are:

- The First Three Minutes - Steven Weinberg
- A Brief History of Time - Stephen Hawking - If you don't fancy this you may like to try a Briefer History of Time which is more up to date. It's also apparently much easier to read.
- In Search of the Big Bang - John Gribbin

If you want to prep for the Astrophysics option we do in Y13 try Universal: A Guide to the Cosmos by Brian Cox.

On Prime or Youtube you'll find some great documentaries by the Royal Institute, Jim al Khalili or Brian Cox.

Examples include:

- Brian Cox: GCSE physics brought down to Earth

<https://www.youtube.com/watch?v=enSXh4YY9Ws&t=1596s>

- How physics can revolutionise biology

<https://www.youtube.com/watch?v=wwgQVZju1ZM&list=PLbnrZHFNEDZzxswBf5WhzbIDTInJOgCIP&index=68>

- The world according to physics:

<https://www.youtube.com/watch?v=gKrjOD3ZeO0>