

Preparing for A Level Physics

The resources below are intended as ideas for you to become familiar with the study of Physics. It is recommended that you complete all of the 'Read' activities, complete at least half of the 'Watch' activities and a few of the 'Listen' activities. The 'Complete the Course' activities are to stretch your understanding and give you a taste of university study.

Read

1. Read the article and answer in under 150 words: Why do you think that NASA are sending squids into space? <https://www.bbc.co.uk/news/science-environment-57339989>
2. Read the article and answer in under 150 words: why are we studying Venus? <https://physicsworld.com/a/nasa-selects-two-venus-missions-for-launch/>
3. Read the article and describe it in under 150 words. <https://www.bbc.co.uk/news/56643677>
4. Read the article and explain what a black hole is in under 200 words. <https://www.bbc.co.uk/news/science-environment-54420240>

Watch

1. Watch the video. Suggest, in under 200 words, how our Solar System could be different if a different type of star was at its centre. You can choose which type of star to describe. <https://www.youtube.com/watch?v=3mnSDifDSxQ>
2. Watch the video. Write an argument no longer than 200 words either for, or against, Nuclear power. <https://www.youtube.com/watch?v=rcOFV4y5z8c>
3. Watch the video. Summarise the video on Albert Einstein in under 200 words. <https://www.youtube.com/watch?v=91XI7M9I3no>
4. Watch the video. Choose one the parts of the EM Spectrum to summarise in under 200 words. <https://www.youtube.com/watch?v=IXxZRZxafEQ>

Listen

1. Watch this video. Chose one area of everyday life and explain the Physics that applies to it. <https://www.youtube.com/watch?v= ryJK294Psw>
2. Watch this video. 'We are all made from stars' – do you agree with this statement? Why? <https://www.youtube.com/watch?v=uN2AYauvOeY>
3. Watch this video. Explain how we know the structure of the atom and what particles it is made from. <https://www.youtube.com/watch?v=HVxBdMxgVX0>
4. Watch this documentary. Choose one area from the programme to write a page summary of. <https://www.youtube.com/watch?v=68Qp2FON8Mk>

Complete the Course

1. Heisenberg's Uncertainty Principle – summarise what it is in under 250 words. <https://www.youtube.com/watch?v=TQKELOE9eY4>
2. In under 250 words, use Physics to explain Roberto Carlos' free kick. <https://www.youtube.com/watch?v=m57cimnJ7fc>