6th Form Preparation work for

Physics

Choose 5 tasks

Read the information on Units and Homogeneity. Follow the link. There are useful website links within the document to develop your understanding further.

Units & Homogeneity
Time: 30 min

Complete the task on Units and Homogeneity of equations. Follow the link below.

Units & Homogeneity Task Sheet
Time: 1hr

Read the two articles about the feasibility of a space elevator. They explore the idea of a link between the Earth and space, an 'elevator', that would improve space exploration. This will develop your skills to both support and argue against a hypothesis.

Space Elevator
Science News for Students
Space Elevator PDF
Physics Review
Time: 1hr

Listen to this podcast about some pressing physics questions like: why do some parts of the moon appear darker than others; what is the large hadron collider for and what can quantum computers do for science?

Dr Karl: The Moon, Particle Physics and..
5 Live Science Podcast
Time: 1hr

Watch the TED talks. Five mind-bending questions from Physics. Each one lasts between 15 to 20 minutes.

Mind-bending questions from physics
TED Talks
Time: 1hr 20 min

Read the information on Scalars and Vectors. Use the website links within the document to develop your understanding further.

Scalars & Vectors
Time: 30 min

Complete the task sheet on Scalars & Vectors. Follow the link below.

Scalars & Vectors Task Sheet
Time: 1hr 10 min

Complete a profile on Isaac Newton and Christian Huygens. Include information on their background, their individual theories on light and what evidence they gathered. Compare the two theories and explain the significance of their theories on science.

Time: 1 hour

Listen to this podcast about Paul Dirac, a Bristolian theoretical physicist, ranked alongside Einstein by his peers, who won a Nobel for his work on quantum mechanics.

Paul Dirac
In Our Time
Time: 50 min

THINKING HARD:
Have a look at the Subject Content for the **AQA AS and A-level Physics Specification.**
Make a list of the links between the content of sections 3.1-3.5 and the Physics GCSE. Rank them in order that you found most interesting. Justify your top 3 decisions. Then write 2 paragraphs about a career that is related to your top choice.