

PRE-COURSE ACTIVITIES

SUBJECT

A level Physics

We are thrilled that you are interested in studying A level Physics and eagerly anticipate working with you over the next two years. Please note that the entry requirements for A level Physics are a grade 6:6 in GCSE Combined Science and a grade 6 in GCSE Maths.

Best of luck with your GCSEs!

Mr. Joyce

WATCH THIS



Moon (2009)

With only three weeks left in his three year contract, Sam Bell is getting anxious to finally return to Earth. He is the only occupant of a Moon-based manufacturing facility along with his computer and assistant, GERTY. When he has an accident however, he awakens to find that he is not alone.



Gravity (2013)

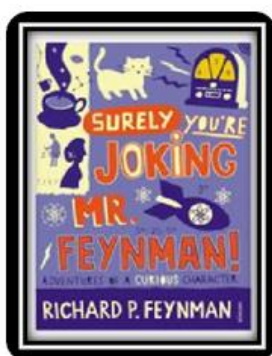
Two astronauts work together to survive after an accident which leaves them stranded in space.

Interstellar (2014)

A team of explorers travel through a wormhole in space in an attempt to ensure humanity's survival.



READ THIS

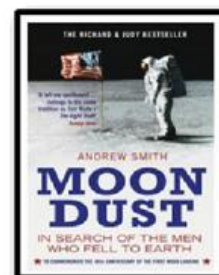


Surely You're Joking Mr Feynman: Adventures of a Curious Character

By reading this book you will get insight into his life's work including the creation of the first atomic bomb and his work in the field of particle physics.

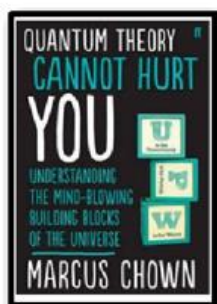
Moondust: In Search of the Men Who Fell to Earth

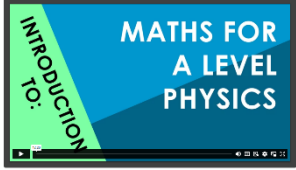
This book uses the personal accounts of 9 astronauts and many others involved in the space program, looking at the whole space-race era.



Quantum Theory Cannot Hurt You: Understanding the Mind-Blowing Building Blocks of the Universe

Any physics book by Marcus Chown is an excellent insight into some of the more exotic areas of physics that require no prior knowledge.



DO THIS	Register for Isaac Physics: Here you will master Physics by solving problems. Isaac Physics is a free website to help you learn physics, maths, chemistry and biology. They aim to help students at secondary school level, including those working towards GCSE, A Level, or similar courses. I will be setting questions from here throughout the year.
LEARN THIS	Watch this video and revisit key maths skills such as: • Pythagoras • Trigonometry • Re-arranging Equations • Standard Form Maths for A level Physics 
ANSWER THIS	Consider the following questions: 1. A box is dropped off from the top of a tall building. Use your knowledge of physics to comment on what the final velocity of the box would depend on. 2. There are many parts of space that are detected by different types of telescope. Use your knowledge of physics to describe one telescope that is used in astronomy.