

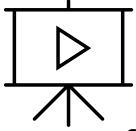


## **A level summer transition work**

Subject: **PHYSICS**

Exam board: OCR

Expectation is you will complete at least one task from each category and come to your first lesson in September prepared to discuss this work. You must bring your 'Independent learning log' and any completed work in September.



### **Video Clips**

Each of these short video clips introduces an idea or theme that is relevant to this A level course. In your 'independent learning log' note down any questions the clip raises.

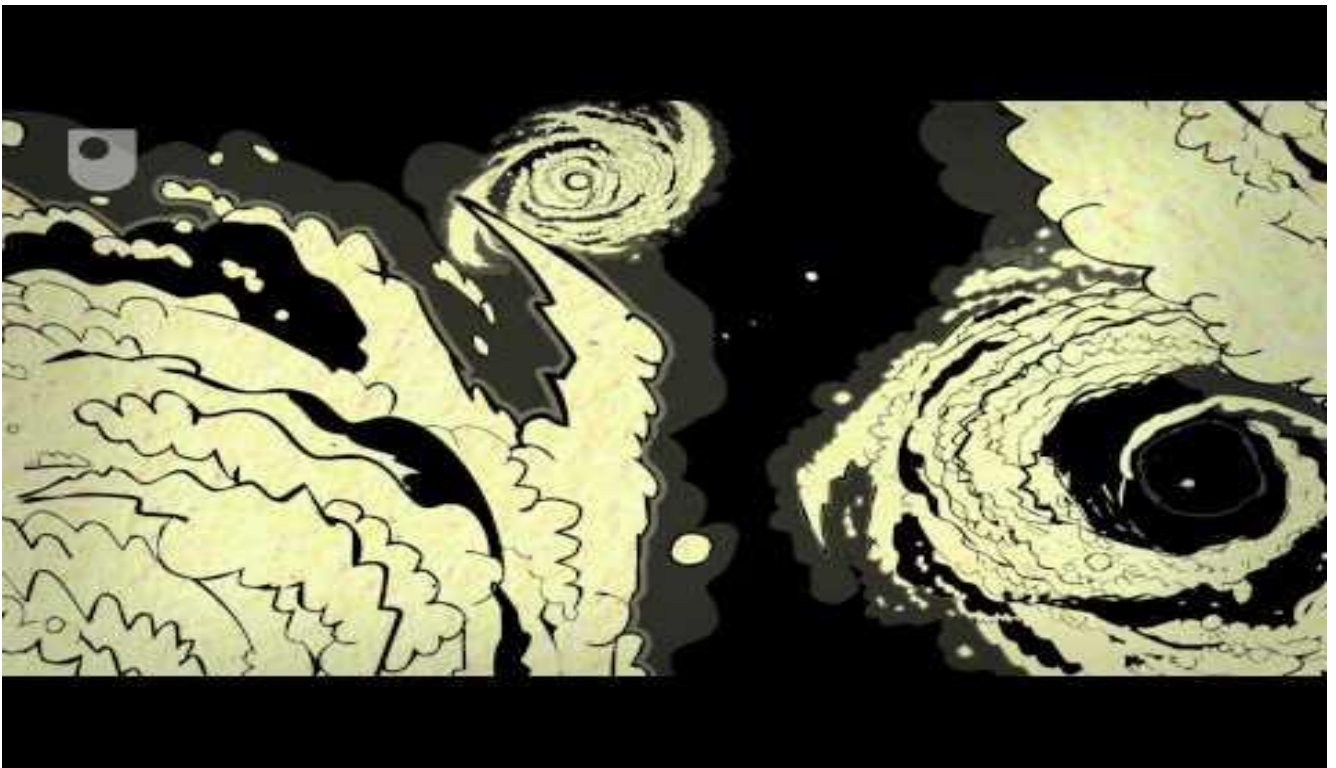
Sixty Symbols [The Problem with Black Holes - Sixty Symbols](#)

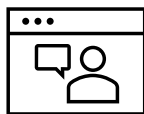


Kurtzgesagt [What Is Light?](#)



60 second adventures in astronomy [The Big Bang - 60 Second Adventures in Astronomy \(1/14\)](#)





## TV programmes, films, and documentaries

These programmes will get you thinking even more deeply about this A level course. In your 'independent learning log' write down anything you will explore further following your viewing

**Brian Cox 'Seven days on Mars'** <https://www.bbc.co.uk/iplayer/episode/m0018cd1/brian-cox-seven-days-on-mars>

**Secrets of Size: Atoms to Supergalaxies** In this mind-bending series, Jim Al-Khalili explores the vast range of size in the universe, from tiny atoms to gigantic, interconnected galaxies.  
<https://www.bbc.co.uk/iplayer/episodes/m0017frp/secrets-of-size-atoms-to-supergalaxies>



## Books

These books are excellent introductions to A level. Write a small summary or review of the book or sections of the book you have read.

**Title:** OCR AS/A Level Physics A 2015 Student book 1    **Author:** Mike O'Neill    **ISBN-13:** 978-1447990826



## Questions to discuss

These are questions you could discuss with family and friends over the summer. Try to write a summary of your discussion and the different viewpoints that emerged.

**Research Activity** Using the internet and books, complete the following task. You should produce notes on the following topic(s). Feel free to use <http://www.wikihow.com/Take-Notes>

You must reference sources. Use <http://www.qub.ac.uk/cite2write/mhra2a.html> and [www.qub.ac.uk/cite2write/mhra2f.html](http://www.qub.ac.uk/cite2write/mhra2f.html)

**Make sure you have your notes with you for your first lesson in September. 1) The Photoelectric Effect 2) Wave-Particle duality**

# The Emmbrook Sixth



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**Headteacher:** Mr Nick McSweeney

There is a tendency for Advanced Level students to be overly technical when undertaking independent research. Use the specification to help you to gauge the degree of complexity of the ideas that you present in your research.





## Independent learning log

Use the table below to keep a record of your preparation work. Bring this to your first lesson back in September.

Date completed	Title	Type of task	Questions/resources you produced (summer notes, book review etc)