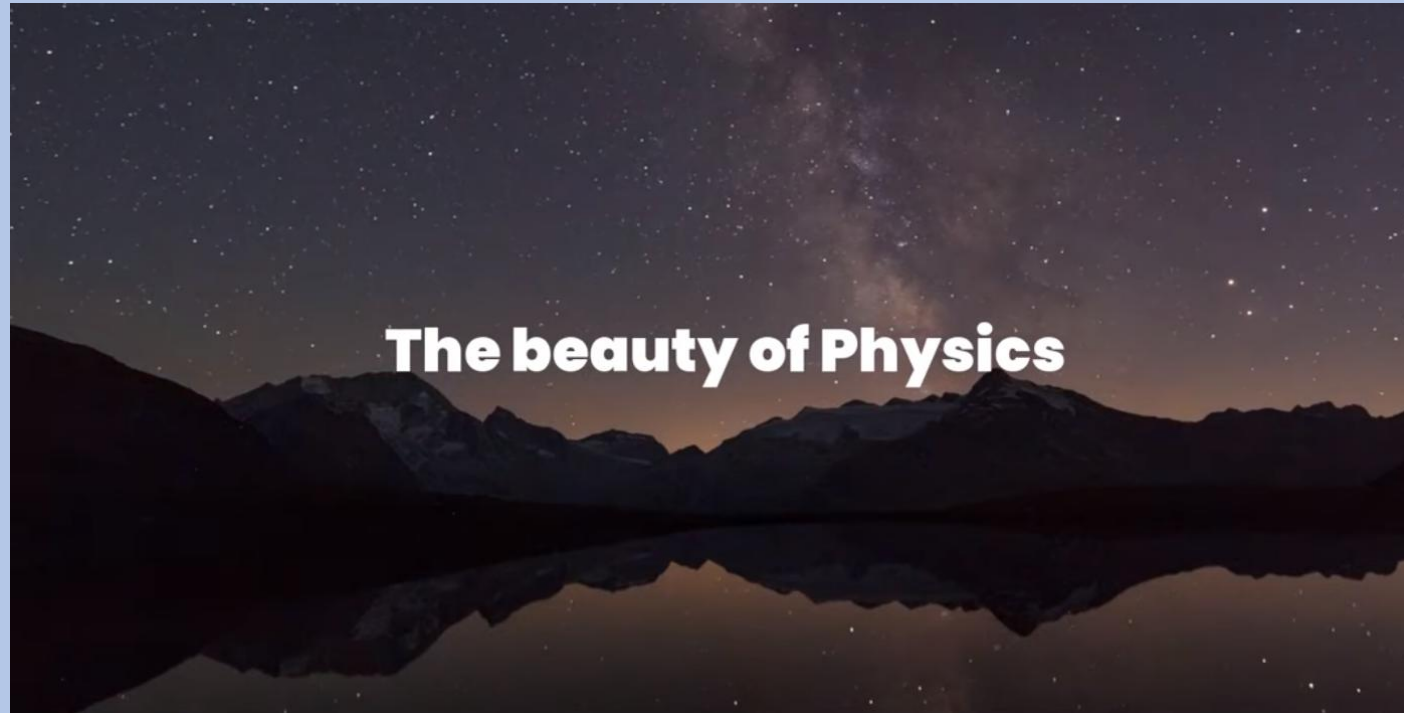


A-Level Physics Induction

Welcome to A-Level Physics at Bourne Academy



A-Level Physics Course

A-Level Physics:

- 2 year linear course (exams taken at the end of Year 13)
- 100% Exam Based
- No coursework
- 5 lessons per week
- 12 Required Practical Activities – these are different to GCSE ones, your practical skills are actually assessed.

Topics Covered

Year 12	Year 13
• Measurement and their errors • Particles and Radiation • Waves • Mechanics and Materials • Electricity	• Further Mechanics • Thermal Physics • Gravitational Fields • Electric Fields • Magnetic Fields • Nuclear Physics • Optional Unit – Astrophysics

Exams

Assessments

Paper 1

What's assessed

Sections 1–5 and 6.1
(Periodic motion)

Assessed

- written exam: 2 hours
- 85 marks
- 34% of A-level

Questions

60 marks of short and long answer questions and 25 multiple choice questions on content.

+

Paper 2

What's assessed

Sections 6.2
(Thermal Physics), 7 and 8

Assumed knowledge from
sections 1 to 6.1

Assessed

- written exam: 2 hours
- 85 marks
- 34% of A-level

Questions

60 marks of short and long answer questions and 25 multiple choice questions on content.

+

Paper 3

What's assessed

Section A: Compulsory
section: Practical skills and
data analysis

Section B: Students enter for
one of sections 9, 10, 11, 12
or 13

Assessed

- written exam: 2 hours
- 80 marks
- 32% of A-level

Questions

45 marks of short and
long answer questions on
practical experiments and
data analysis.

35 marks of short and
long answer questions on
optional topic.

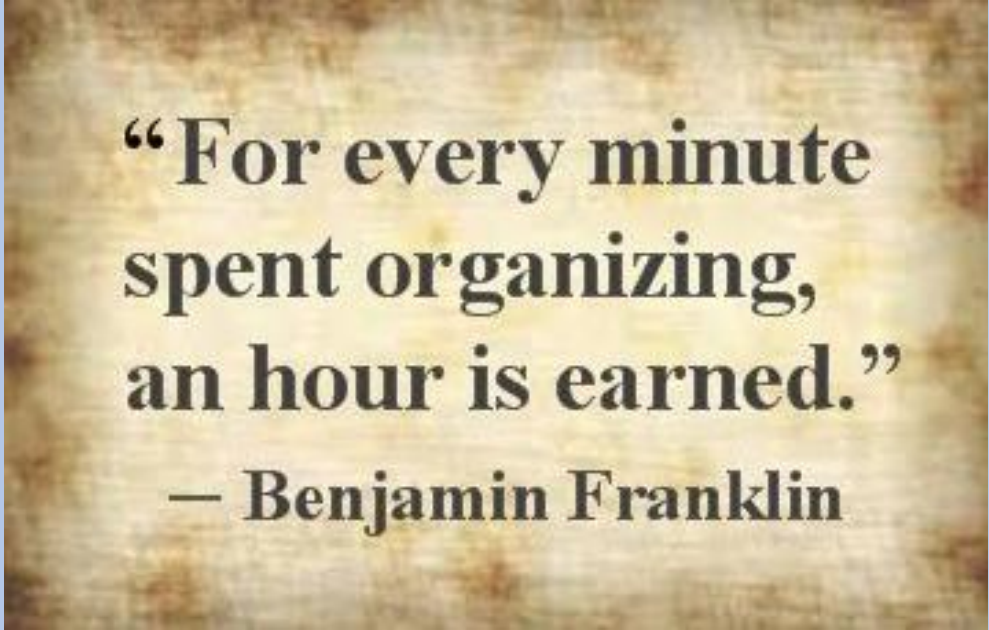
Organisation

Physics Folders:

You will need 2 arch-level files (1 for each teacher)

In these you will have:

- Assessment Tracker
- Dividers for each topic
 - Checklist
 - Notes
 - Classwork
 - Homework
 - Assessment(s)



**“For every minute
spent organizing,
an hour is earned.”**

— Benjamin Franklin

Required Practical Activities

- There will be 12 assessed practical activities you will need to complete over the 2 years of the course.
- We will provide you with a lab book to record all methods, observations, results, conclusions and evaluations you draw from the practical activities.
- You will develop a variety of practical skills, techniques and experimental competencies.

Activity – Force and Magnetic Flux Density

1. Set up the apparatus as shown in the diagrams.
2. With no current flowing through the wire, zero the mass balance.
3. Adjust the voltage of the supply so that the current flowing through the wire is 6.0 A as measured on the ammeter.
4. Record the mass in grams.
5. Repeat the procedure for currents of 5.0, 4.0, 3.0, 2.0 and 1.0 A.
6. What happens if you rotate the magnets through 90 degrees (shortening the length of the wire in the magnetic field)?
7. What happens if you alter the direction of the current? Why?