Transition Pack
AS level Physics

Summer 2025

Name: _____

Contents

Introduction

Welcome to the Physics Department at Wigston College Leicester. We are delighted that you have chosen to study Physics at A-level with us. We love our subject, and look forward to helping you enjoy it too! At Wigston College, we study the OCR Physics 'A' course. This has a modern approach to current physics topics whilst still including more traditional aspects.

What to expect

So far in your education, you may have found GCSE's a breeze, and sailed through your exams having been predicted great grades. Or you may have worked hard for your exams and know that rewards came because you applied yourself. It makes no difference which side of success you start on, the following year will be one of the most difficult you will have faced in your schooling so far. Whatever your learning style, and however adept you are at last-minute revision(!) 'A' level Physics requires ability and **a great deal of hard work from every student.** No-one is clever enough to just 'wing it'.

The jump from key stage 3 to 4 is small compared from the giant leap from key stage 4 to 5. Some students cross carefully, with caution and preparation, others jump head first without realising the extent of the chasm they are approaching. We will help you prepare, support, and guide you. The rest is up to you.

Our Expectations

You will be expected to:

- Complete at least one hour of self-study for every lesson you have in the lab (1 hour per night should be normal)
- Complete pre-reading from the course text and wider reading before each lesson
- Attend intervention as and when required
- Contribute fully to lessons and ask questions if you are unsure
- Complete all tasks to the best of your ability

What you will get in return:

- Careful teaching
- Support, guidance and assistance whenever needed
- Thorough exam preparation
- Extra resources and activities to extend your learning

OCR Physics A course content

All of the following information is available on the OCR website. For students following the A2 route, you will still complete the same content as the AS students as the courses are taught in parallel.

Content Overview	Assessment (in Year 13)	
Content is split into six teaching modules: • Module 1 – Development of practical skills in physics • Module 2 – Foundations of physics • Module 3 – Forces and motion • Module 4 – Electrons, waves and photons • Module 5 – Newtonian world and astrophysics • Module 6 – Particles and medical physics Component 01 assesses content from modules 1, 2, 3 and 5. Component 02 assesses content from modules 1, 2, 4 and 6. Component 03 assesses content from all modules (1 to 6).	Modelling physics (01) 100 marks 2 hours 15 minutes written paper	**37%** of total A level
	Exploring physics (02) 100 marks 2 hours 15 minutes written paper	**37%** of total A level
	Unified physics (03) 70 marks 1 hour 30 minutes written paper	**26%** of total A level
	Practical Endorsement in physics (04) (non exam assessment)	Reported separately

Practical investigation skills will be taught alongside your lesson content so it is essential that you make the most of every lesson and opportunity that arises. There are no practical assessments at AS Level. A2 level students will keep a log of specific experiments that are completed as part of their A2 Practical component.

How to succeed

The following may seem obvious but they are essentials for a successful outcome to your time studying Physics.

What you should do is:

- Make notes in class. Initially, these notes will be handed in for marking to ensure that you are meeting a standard. **Notes will need to be added to when you leave the lesson through your own additional reading.**
- Complete out of class activities and questions and return them for marking. Exam style questions will be set for each part of the unit. You must complete all question sets to have a complete set of assessments. Missing assessments is unacceptable.
- Read up in preparation for your next lesson. Forewarned is forearmed! It will be your responsibility to read in advance, the text, the slides, and the practical work that we will be covering in the lessons.
- Ask questions, no matter how basic. You will have to push yourself out of your comfort zone at times and we fully expect you to ask what seem

to be silly questions. They're not! All questions are relevant if it helps you to gain a better understanding.

- Talk about it. Get to know your class members so you can discuss lesson content. Make study groups or get a study buddy.
- Study outside of the classroom. For every hour in class you should complete in the lab, an additional hour reading up and revising the lesson should be planned in to your study timetable.
  These may seem obvious but once you have your study periods and what seems like 'free time' it's easy to relax into A-levels, and then get bad results or fail.

What not to do…

Don't take it easy and expect that you'll do well. AS Physics takes commitment from the first lesson. You will be assessed from the start and need to make good progress throughout the year.

Don't expect that you'll be given all the answers. Self directed learning will enrich your lessons and give you a more rounded picture of the subject matter. Learning in your own way personalises the journey.

Don't ignore the bits that you are struggling with. They won't go away until you deal with them. Come and see us.

First steps at A-level

Be prepared from the first day.

You will be issued with the following:

- Lesson note book / loose-leaf paper
- You will be given some useful revision books. These cover all of the basics for each topic and are a useful reference throughout the course. We will use the content from this book throughout the year so **use it and learn it.**
- Log-in details to some excellent on-line resources

The first lesson:

- Summer transition work – you will be expected to hand in your transition tasks on the first lesson of the course.
- Paper and pens – taking notes during lessons is an essential part of A-levels and this is a task that will become more independent as you progress through the year.

Additional needs

- Scientific calculator – a must have for any Physics student
- A revision guide
- Additional text books. You may want to buy a text book in addition to the course text. This is not essential but there are some new publications that are excellent, and we will be able to sell them to you at discounted prices.

Summer starter tasks

As an introduction to the course and to enable you to start A level Physics with confidence, you are required to complete three tasks over the summer. These tasks need to be done thoroughly. This is not a course to enter into lightly!

1) Researching information is a key skill required to extend your learning from the lessons. You are required to recall the following information which you must now research and remember. Present this with you exam paper and write up on the first lesson. You need to stretch yourself for these tasks, do not copy and paste information. Read and write notes reflecting your understanding of:

- Kirchhoff's first and second laws
- The reflection, refraction and diffraction of light waves
- Typical values for the wavelengths of the different regions of the electromagnetic spectrum, and their uses.
- Torque of a couple and moment of a force.

2) If you were present during the induction lessons you will have carried out a practical investigation. To show us some of your skills as a potential physicist, you now need to write up the practical investigation. Hand in your write up during your first lesson.

3) As a preparation for our first lessons in September please also find out about the following topics. Make notes, write down any questions you may have; then bring them to the first lesson.

1. Physical Quantities and Units 2. Motion 3.Charge and Current

An excellent place to start researching is:

alevelphysicsonline.com/ocr-spec-a

There you will find really helpful short video clips for each of these headings (and so many more!).If you're curious spend some time getting ahead for next year. We will be starting with modules 3 & 4.

As a sign of your commitment and preparation for A level Physics, we expect that these pieces of work be done during your extended summer break. For students who have a delayed arrival at their A-level choices, they will be asked to complete the summer work.

Summary

After reading through our transition pack, we hope are excited, and not too daunted, about starting A level Physics in September. Remember the rewards justify all the hard work :0)