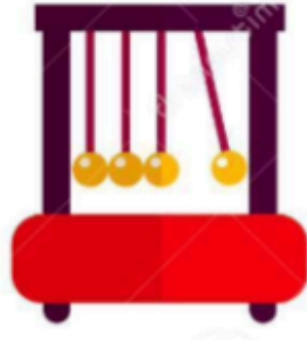
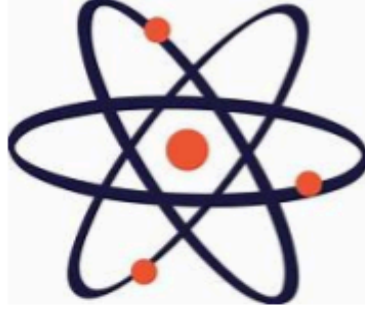


# Physics Transition

## Work



## Welcome to Physics!

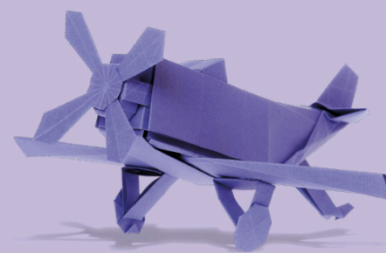
We are studying the Edexcel Physics A level course.

We will not be doing AS levels, so your final assessment will be at the end of Year 13.

The specification can be found at:

<https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/physics-2015.coursematerials.html#%2FfilterQuery=category:Pearson-UK:Category%2FSpecification-on-and-sample-assessments>

## A Level Physics



Specification  
Pearson Edexcel Level 3 Advanced GCE in Physics (9PH0)  
First teaching from September 2015  
First certification from 2017

## DM Student Approved resources

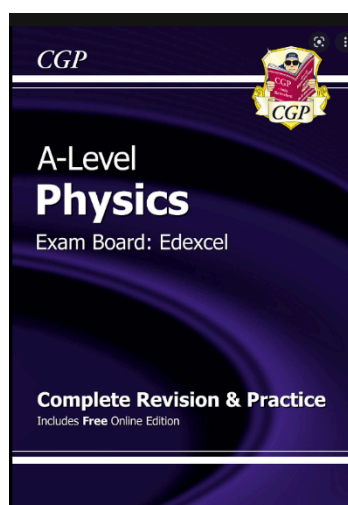
SnapRevise (free videos online and other revision materials/programme to buy)

Physics online – YouTube

<https://www.youtube.com/@PhysicsOnline>

Physics Maths Tutor website

<https://www.physicsandmathstutor.com/physics-revision/>



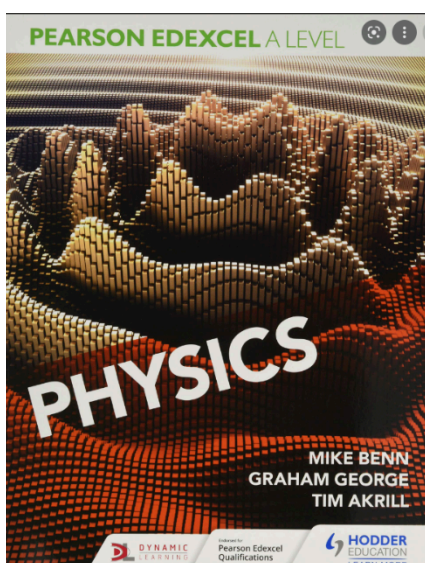
## Transition Work

The idea of this work is to allow you to keep your 'physics' brain over the summer holidays so that you are ready for September. It contains tasks that I would like you to complete and bring with you to your first physics lesson in September. Use online resources to help you!

**Have a go at each task!**

## Reading around the subject

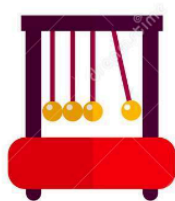
It's a good idea to read articles to support your learning and interest in physics. At the start of Year 12 we will offer you a chance to join a subscription for this fab journal.



## The Start!

Your first lessons in physics will be where we show what we expect of you and how to record your notes. You will also receive your textbooks (below) which you will need to keep very safe!

Please bring: a lever arch file, dividers and a pad of lined paper (plus pens, calculator etc.)



## Task 1) Pre-Reading

You will be required to do pre-reading before some lessons to make sure you understand the basics of a topic.

So, to prepare for the first topics that you will cover, I want you to complete two summary sheets from your GCSE knowledge. (Use the internet to help you add details if you are unsure). You'll find recommended outlines for the mechanics topic below which you can write or type in, or create your own.

## Task 2) Investigation planning

Practical work makes up a large part of your A-level qualification and an important part of this is being able to plan investigations. So, I'd like you to research and plan an investigation into the effect of temperature on the viscosity of golden syrup. You must include:

**Dependent variable:** what will you measure? What equipment will you use to measure it?

**Independent variable:** what will you change? Give the values you will use. What equipment do you need to run the experiment at those values?

**Control:** What must you keep the same and how will you keep these things the same? Why must you keep them the same? Give the values you will use.

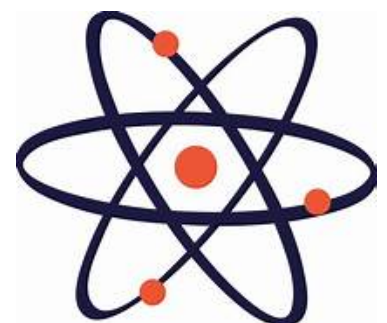
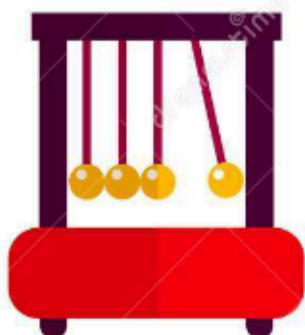
**Repeats:** how many repeats will you do for this method?

**Statistics:** what analysis will you do? E.g. means, range, what sort of graph will you draw?

**Safety:** what are the hazards and how will you control them?

**Results:** Draw a blank results table that you will be able to collect your results in. Remember to include clear headings and units for your table.

**Bibliography:** record any references you used in your research



# Summary Sheet for Topic 2 Mechanics

## Vectors and scalars

State the difference and list at least 5 of each.

Extension: Add the commonly used units to each vector and scalar you have named.

What is a moment? How can it be calculated and what is the principle of moments?

Define friction, lift, drag and terminal velocity

Explain what SOHCAHTOA refers to

## Newton's Laws

State all three.

Extension: Describe a real world example of each law in action.

Define Work done, Power and efficiency and give an equation and unit for each.

What are the equations for kinetic energy and gravitational potential energy?