

# Biology Transition Work



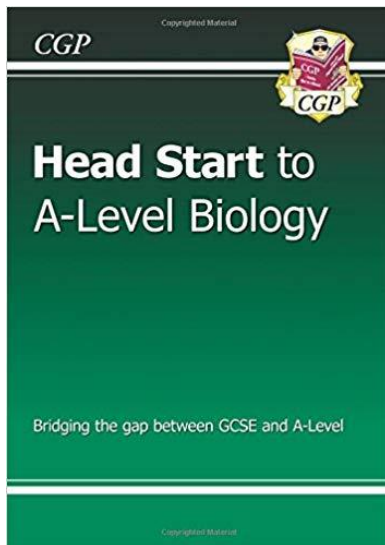
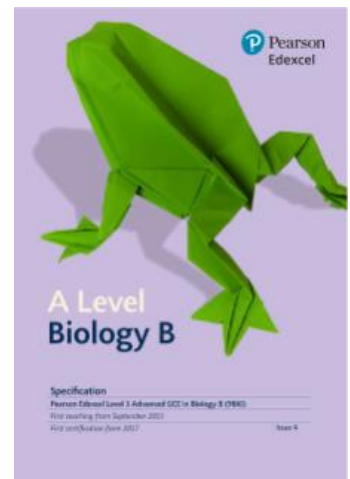
## Welcome to Biology!

We are studying the Edexcel Biology B 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/biology-b-2015.html>



## Transition Work

The idea of this work is to allow you to keep your 'biology' brain over the summer holidays so that you are ready for September. It contains 3 tasks that we would like you to complete and bring with you to your first biology lesson in September. Use the 'Head Start' book to help you!

## The Start!

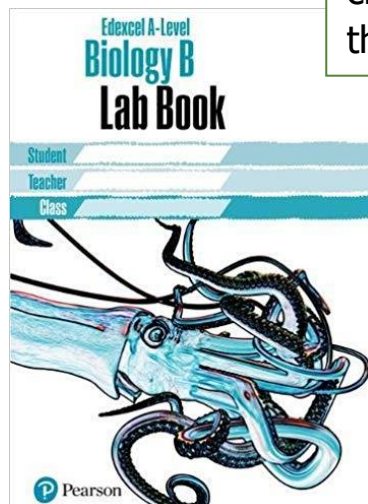
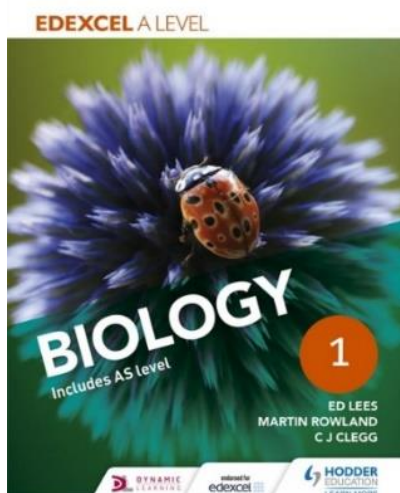
Your first lessons in biology will be where we show what we expect of you and how to record your notes. You will also receive your textbooks (below) which you will need to keep very safe!

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

## 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 biology. At the start of Year 12 we will offer you a chance to join a subscription for this fab journal.



## 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, we 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 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, we'd like you to research and plan an investigation into the effect of temperature on an enzyme. 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? Give the values you will use.

**Organism:** How will you control for variety in any living material you might 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 1 Biological Molecules

What do you know about  
Carbohydrates, Lipids and  
Proteins?

## **DNA**

What is its structure?

How are proteins synthesised using the genetic code?

## **Enzymes**

Draw a diagram to show how enzymes work.

Describe and explain how different factors affect how enzymes work.

# Summary Sheet for Topic 2 Cells, Viruses and Reproduction

Draw and label a plant cell. Add descriptions of what each part does.

Describe how to set up a light microscope. You might want to use a diagram to help.

## Cell division

Describe the purpose of mitosis and the stages involved.

Describe the purpose of meiosis and the stages involved.  
How is it different to mitosis?

Describe how plants reproduce