

Biology Homework Year 10 into 11

In your final exams, you will be given exam questions on the required practicals so you need to understand what they are.

Overall, there are 10 biology required practicals that you need to know.

To be well prepared you need to have a thorough understanding of each one, so the earlier you start learning about them, the better you will do in your GCSE Science subjects.

A key point is to understand the independent variable, the dependent variable and the control variables for each required practical.

During this year you will have carried out or have had demonstrated to you, approximately half of the required practicals and these are:

Biology

- Microscopy
- Microbiology
- Osmosis
- Enzymes
- Food tests
- Photosynthesis

Your Homework

Use your checklists in your books (B1) and watch videos on free science lessons.co.uk relating to the required practical's covered this year.

Write a full method for each one, which includes describing the variables.

Learn about each required practical ready for exam questions on them.

How will you be assessed on this homework?

You will sit a progress check (6 mark question) in the first two weeks of September on this topic.

Useful links:

This is information from the exam board about the required practicals.

<https://filestore.aqa.org.uk/resources/biology/AQA-8461-PRACTICALS-HB.PDF>

Microscopy

<https://www.youtube.com/watch?v=jBVxo5T-ZQM>

Microbiology

<https://www.youtube.com/watch?v=BkbLI2mAMP8>

Osmosis

<https://www.youtube.com/watch?v=ef2Ts2AKhq8>

Enzymes

<http://freesciencelessons.co.uk/required-practical-effect-of-ph-on-amylase/>

Food tests

<http://freesciencelessons.co.uk/required-practical-food%20tests/>

Photosynthesis

<https://www.youtube.com/watch?v=cBCKedXdFeE>

Other useful information to learn

continuous data

data that can take any value

correlation

an apparent link or relationship between two factors

gradient (of a straight line graph)

a measure of the slope of a straight line on a graph

line of best fit

a straight line that represents the general trend of data. An equal number of data points should be above and below the line of best fit

mean

the arithmetical average of a series of numbers

median

the middle value of a list of numbers

order of magnitude

a comparison of the size of values. Two values are the same order of magnitude if their difference in size is small in comparison to other values being compared

percentage

a number expressed as a fraction of 100

qualitative data

data that is descriptive or categorical

quantitative data

data that is numerical or a measurement

ratio

a way of comparing two or more quantities, showing how many times one quantity is contained within the other

SI system of units

a system of units for physical quantities that are considered the standard units

significant figures (s.f.)

the important digits within a number. All non-zero digits are significant. Zeros may be significant if followed by another non-zero digit

standard form

a way of displaying large and small numbers

tangent

a straight line drawn to touch a point on a curve so it has the same gradient as the curve at that point