

Ashton Sixth
Year 11 into 12 Transition Tasks



Subject: Biology

Syllabus studied: OCR A

Link to the exam board website: www.ocr.org.uk

Welcome to Ashton Sixth and congratulations on your decision to join us. We hope that you have an enjoyable and successful time here.

Biology is the scientific study of life. We are living things ourselves so biology is about us too. During your A Level course, you will get the chance to delve deeper into *why* things are the way they are. You will need to review your knowledge from GCSE in order to move on your understanding at AS.



Task 1

Explain the Biological significance of water

You should produce an essay, approximately 1000 words long explaining the importance of water to living organisms.

The key properties of water are listed below. You have to look at each one and state how it helps living organisms to survive. Look at the resources provided to get you started. Please add a bibliography to your work, including all text books and websites you used to research this.

1. excellent solvent, due to water's polarity
2. found at liquid state at room temperature, due to the hydrogen bonds
3. high specific heat capacity, meaning it takes a lot of energy to change temperature
4. high latent heat of vaporisation, lots of energy required to change to gas
5. latent heat of fusion, ice gets less dense as it cools
6. high surface tension
7. water is transparent

To discover more about the subject at a higher level:

- Look at the syllabus and past papers on the OCR website (as above).
- Buy a revision guide specific to OCR, we recommend this [book](#)
- Make notes on microscopes, cell organelles and cell membranes as these are the topics covered first.

Task 2

Work through the transition student sheet to help you pre learn some useful knowledge for the start of the course and to practise the maths skills that you will be using in biology.

The head of this subject is Mrs Bessell: charliebessell@ashtonpark.net

[The Biological Significance of Water - essay resources](#)

You can find some extra help here but don't forget to reference any sources you use.

Here are some links to useful tutorials:

<https://www.youtube.com/watch?v=f8TBxPOwjvs>

<https://www.youtube.com/watch?v=ht5lxPKOBrQ>

<https://www.youtube.com/watch?v=o21tKmG94PA>

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

Other useful websites:

www.biologymad.com

www.saps.org.uk

www.s-cool.co.uk/a-level/biology