

## **Bridging work for AS to A2 level**

### **1. Synoptic Essays**

You should write your essay in continuous prose. Your essay will be marked for its scientific accuracy. It will also be marked for your selection of relevant material from different parts of the specification and for the quality of your written communication.

The maximum number of marks that can be awarded is 25 (about 4 A4 pages).

The essay must include at least 5 different topics and must include both AS and A level material. Scientific terminology needs to be of A level standard and not GCSE standard.

These essays must be handwritten.

**Essay A: The importance of shapes fitting together in cells and organisms.**

**Essay B: The movement of substances within living organisms.**

### **2. Further reading**

The synoptic essay requires further reading. You need to research something you find interesting which relates to the AS course. Create a 1 x A4 page fact file which can be used by the rest of the year group in their essays. It can include annotated diagrams to help explain.

Suggested topics (you are more than welcome to do your own):

- A comparison of globular and fibrous proteins in the human body.
- Competitive inhibition in medicine.
- Investigations that have led to the understanding of the role of DNA.
- Which came first, the enzyme need to make the nucleic acid or the nucleic acid needed to make the enzyme?
- The role of proteins in blood clotting
- The role of proteins in plant development.
- The effect of cancer therapy on the cell cycle.
- Haemoglobin in different organisms.
- A comparison of the heart in different organisms.
- The role of co-transport in translocation.
- The use of immunotherapy in treating cancer.
- The importance of hybridisation and polyploidy in plants.
- The positive and negative effects of hedges on biodiversity.

### **3. Catch-up work.**

If you missed any lessons or don't understand a topic, it is your responsibility to catch up. These units will be assessed in September in AP1.

Please use Kerboodle to read over Section 6 (pages 60 – 93) and Section 7: 202 - 225