



YEAR 13 TRANSITION: Biology

Well done for all of your hard work over the last term, it does not go unnoticed 😊

To make a smooth transition into Year 13, there are a few things we would like you to do over the 6 week holiday. Completing these tasks will make September more enjoyable and successful. They are essential if you feel behind or are aiming for early UCAS entry.

1) Organise

- Make sure you have the AQA 2nd Edition textbook for both AS and A2.
- Sort out your AS notes, assessments, feedback etc. into specific units within a large ring binder folder so they are easy to use for revision.
- Buy a new large folder (and dividers) for A2 and top up your supply of pens, pencils, paper etc. If you are eligible for a bursary – you can purchase these items using that funding in the normal way, so keep any receipts.

2) Prioritise

There will be an exam period within the first half term. It is imperative that you perform as well as you can in these assessments so you need to be aware of what you do/ don't know! Early in the holidays, go through the list of topics we have covered and highlight areas that will need work and build a timetable from there.

In Year 12 we learnt about:

1. **Biological molecules** (carbohydrates, lipids, proteins, DNA, RNA and water)
2. **Cells** (microscopy, eukaryotic organelles, prokaryotic cells, viruses, cell cycle, diffusion, osmosis, active transport and co-transport)
3. **Immunity** (cell mediated immunity, humoral immunity, vaccination and HIV)
4. **Exchange** (gas exchange in insects, fish, plants, humans, the mechanism of breathing, digestion)
5. **Mass transport** (circulatory system including cardiac cycle, transpiration)
6. **Genetic information** (DNA, protein synthesis, variation, selection, taxonomy, practical investigative techniques)
7. **Biochemistry** (photosynthesis including light-dependent and light-independent stages, respiration including glycolysis, link reaction, Krebs cycle, oxidative phosphorylation)
8. **Genetics** (monohybrid, genetic crosses, dihybrid, co-dominance, sex-linkage and autosomal linkage, epistasis and chi-squared)



3) Revise

Once you have made your list of priorities to revise, use some of the following techniques to embed the content!

- Read/highlight through your class booklets, assessments and your own notes.
- Use the internet. Microsoft teams, YouTube, Seneca and Quizlet are all useful websites for either videos to learn content or questions to assess your knowledge.
- Complete exam questions on that specific topic (use physicsandmathstutor)- re-do ones that you get wrong! This is the technique that will boost your grade the most.
- Complete full AS exam papers (available on the AQA website)- again, re-do any questions you get wrong.
- Create plans for previous essay questions. This will help you to make links between topics and revise the details of content.

4) Prepare

In September, we will be diving into content straightaway. To get a head start research the following questions:

1. What is the structure of the kidney? Make sure you can draw and label the different parts and how each plays a role in osmoregulation.
2. What is epigenetics? Give detail of how it is carried out and some examples.
3. What is the polymerase chain reaction? What is it used for?