



A Level biology

We are asking all students to complete some Independent Preparatory Work over the summer, before they join Year 12 in September. You will need to bring this work to lessons as the content will be assessed through introductory assessments which will be completed within the few first weeks of the new term.

Tasks

You will have two assessments in late September which will cover theory and maths skills.

- You will sit a theory and a maths GCSE Higher level entry test in September.
- Some direct GCSE theory topics tested and expanded upon in A level biology are listed below.

You should make separate independent notes for each one and have them available in lessons to submit to your teacher throughout September

1. Inherited disorders, 2. Exchange of substances such as oxygen, carbon dioxide, water and digested materials and transport of oxygen, 3. Classification, 4. mitosis, 5. Human Digestion, 6. Genetic modification, 7. Coronary Heart Disease 8. Respiration 9. Cancer 10. DNA structure, 11. Drug trials

- **Mathematical skills required of A level biology**

Mathematical application make up 10% of your final A level grade. This is a small sample of some of the maths skills needed

you should make separate independent notes for each concept and have them available in lessons to submit to your teacher throughout September (note this is GCSE level and therefore you are all expected be competent with these)

Log scales, Ratios, percentage change, magnification, standard form, unit conversion. Graph plotting, volume, area, means

Useful web links to help you:

https://www.youtube.com/results?search_query=freesciencelessons

https://www.youtube.com/results?search_query=amoeba+sisters

<https://www.youtube.com/user/MrPollockBiology>

https://www.youtube.com/results?search_query=bozeman+science



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- **Prepare yourself for the course content:**
- **Review the syllabus** fully from the AQA website. **We will** provide you with a printed copy.
- <http://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/specification-at-a-glance>
- <https://filestore.aqa.org.uk/resources/biology/specifications/AQA-7401-7402-SP-2015.PDF>

Students strongly recommended to:

- Purchase your own copy of the text book. Second hand is perfectly acceptable
Recommended link. <https://global.oup.com/education/product/9780198351764/?region=uk>
- Purchase an AQA revision guide.
- Purchase an additional personal Biology text for further detailed independent learning at home:
[Biology By Mike Boyle](#)
- Recommended subscription to an excellently written magazine for A Level biology students
Subscribe to "Biological Science Review" [Biological Sciences Review - Hodder Education Magazines](#)

Extra reading

Students could:

- Research different types of pathogens and transmission of disease.
- Research different types of microscopes: summarise their advantages/disadvantages
- Research the structure of lipids, carbohydrates, lipids, glucose molecules
- proteins and DNA - draw a labelled picture of each molecule



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