



## North Halifax Grammar School – A Level Transition Work

### A level Biology

#### Specification

AQA GCE Biology

<https://filestore.aqa.org.uk/resources/biology/specifications/AQA-7401-7402-SP-2015.PDF>

#### Course Overview

Year 1 Subject Content	Year 2 Subject Content
<ul style="list-style-type: none"><li>• Biological molecules</li><li>• Cells</li><li>• Organisms exchange substances with their environment</li><li>• Genetic information, variation and relationships between organisms</li></ul>	<ul style="list-style-type: none"><li>• Energy transfers in and between organisms</li><li>• Organisms respond to changes in their internal and external environments</li><li>• Genetics, populations, evolution and ecosystems</li><li>• The control of gene expression</li></ul>

#### **Practical Endorsement**

There is no coursework component to the course and 15% of the marks for A-level Biology are based on what you learned in your practicals. You will achieve a qualification following the successful completion of twelve practicals throughout the A level course. This is separate to your Biology examination grade.

#### Recommended Reading / Revision

AQA Biology Oxford textbook (Toole & Toole) – this book will be issued in school)

CGP A Level Biology Revision  
CGP Maths for A Level Biologists

A level biology questions and answers  
[mathsmadeeasy.co.uk/a-level-biology-revision/exam-questions-topic-aqa/](http://mathsmadeeasy.co.uk/a-level-biology-revision/exam-questions-topic-aqa/)

AQA A2 Biology (New Specification):  
<https://www.youtube.com/playlist?list=PL41HBQMUThQyQCzIAh1YjP8EUCPwB45DD>

AQA AS Biology (New Specification):  
<https://www.youtube.com/playlist?list=PL41HBQMUThQxmp1dt3aauH6h1D0oeRaO2>

Bozeman Biology videos <http://www.bozemanscience.com/biology-main-page>

Snap Revise - £30 for each year. <https://snaprevise.co.uk/search?qualification=A-level&examboard=AQA>

Crash Course on youtube  
[https://www.youtube.com/playlist?list=PLNQL82WAc0JXP6HP0iry1S\\_E5JhL4ks0f](https://www.youtube.com/playlist?list=PLNQL82WAc0JXP6HP0iry1S_E5JhL4ks0f)



**Transition work for Biology A level students**

1. Define the following;
  - a. Atom
  - b. Molecule
  - c. Element
  - d. Compound
  - e. Ion
  - f. Organic
  - g. Inorganic
  - h. Macronutrient
  - i. Micronutrient
  - j. Monomer
  - k. Polymer
  
2. What are the most common elements in living organisms? (I'm looking for 4)
  
3. What are the roles of the following in cells?
  - a. Magnesium
  - b. Iron
  - c. Phosphate
  - d. Calcium
  - e. Sodium
  - f. Hydrogen
  
4. Describe
  - a. Covalent bonding
  - b. Ionic bonding
  
5. Why is water essential?
  
6. Water is described as being polar. What does this mean?
  
7. What is a hydrogen bond?
  
8. Why is water able to form hydrogen bonds?
  
9. What is special about the surface tension of water?
  
10. Why is water a good solvent?
  
11. What are the thermal properties of water?
  
12. What is a condensation reaction?
  
13. What is a hydrolysis reaction?
  
14. What is polymerisation?
  
15. What is metabolism?
  
16. What is a 'mole' and what is a 'molar solution'?