

**Biology: A level Guide**

**How Biology will be taught:**

You will have 5 lessons a week split between two teachers.

Both of you teachers will be focusing on different parts of the AQA specification (<https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402>) but there will be key principles that run through all lessons.

Lessons will consist of explanations, worked examples, practical work and exercise completion. Lessons will have some time available for exercise completion from the course textbook or exam questions from the exam board; however, the majority of this will be done outside of lessons as homework. There will also be lesson time available to consolidate and go through the exercises completed outside of the classroom where needed. You will have regular progress tests as a way of seeing how well you are understanding each topic.

At the end of each unit, a key assessment will happen in class, you will be expected to revise for this and there will be time to go through any issues after if required.

**Working expectations:**

* Attend all lessons
* Complete organised and neat notes
* Complete all tasks to the best of your ability
* Ask for help if required
* Work well independently and with others
* Be willing to share ideas

**What 100% effort in this subject looks like:**

* Completing all exercises set on time - do not fall behind as it can result in your failing to understand subsequent topics.
* Seeking help when you are struggling and not leaving questions in exercises incomplete.
* Completing additional tasks/reading around the subject in your own time

**Folder Policy:**

*Your folder should have:*

* Clear notes on each topic
* Separate sections for each teacher and topic
* Marked homework and tests to show progress
* Other revision materials in the back of the folder

**What marking looks like:**

* Assessed homework will be marked and graded
* Topic assessments will be marked and graded
* Any class exercises/exam questions will be self-marked in green pen

**What homework looks like:**

* Exam questions
* Research tasks
* Planning presentations

**Specification at a glance (1st Year):**

|  |  |  |  |
| --- | --- | --- | --- |
|  **Biological molecules** | **Cells** | **Exchange of substances with the environment** | **Genetic information** |
| * Monomers/polymers
* Carbohydrates
* Lipids
* Proteins
* Enzymes
* Nucleic acids
* ATP
* Water and Inorganic ions
 | * Eukaryotes
* Prokaryotes and Viruses
* Methods of studying of cells
* Mitosis
* Transport and cell membranes
* Cell recognition
 | * Surface Area/Volume ratio
* Gas exchange
* Digestion
* Mass transport in animals and in plants
 | * DNA, Genes, Chromosomes
* Protein synthesis
* Genetic diversity and meiosis
* Genetic diversity and adaptation
* Species and taxonomy
* Biodiversity
 |

**Summer preparation**

The purpose of giving you a summer bridging task is:

1. To provide a bridge from level 2 to level 3 study, and lead into the early stages of the course.
2. To engage you in independent learning which is required at level 3.
3. To encourage you to develop your work ethic and commitment to study.
4. To measure your suitability for the course and assess your initial levels of achievement.

**Task 1**: There are a number of key terms that crop up throughout the two-year course. It is important that you are aware what the meaning is of these terms.

Define the following key terms:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Antibody  | Antigen  | ATP | Biodiversity  | Calvin cycle  | Carrier molecule  |
| Centrifugation  | Chromatid  | Codon  | Correlation  | Covalent bon  | Denaturation  |
| Differentiation  | Enzyme  | Epidemiology  | Gel electrophoresis | Facilitated diffusion  | Gene marker  |
| Genotype  | Hydrogen bond  | Hydrolysis  | Introns  | Isotonic  | Isotope  |
| Lymphocytes  | Mitosis  | Monomer  | Neurotransmitter  | Nucleotides  | Oxidation-reduction  |
| Peptide bond  | Parasite  | Primary succession  | Recessive allele | Serum  | Stimulus  |
| Substrate  | Transcription  | Triglyceride  | Unsaturated fatty acid | Vector  | Vector  |

**Further Tasks:**

**Please complete the following tasks. They can be done in any order:**

Please complete the following bridging unit provided by Oxford University Press, this covers all essential skills required for the A Level course.

<http://fdslive.oup.com/www.oup.com/oxed/secondary/science/Science_A_Level_Transition_Pack_Biology.pdf>

If you would like further work then you are able to download the CGP Head Start to Chemistry textbook for free at the moment from Amazon.

[https://www.amazon.co.uk/Head-Start-level-Biology-Level-ebook/dp/B00VE2NIOI/ref=sr\_1\_1?dchild=1&keywords=cgp+head+start+to+a+level&qid=1587640960&sr=8-1](https://www.amazon.co.uk/Head-Start-level-Biology-Level-ebook/dp/B00VE2NIOI/ref%3Dsr_1_1?dchild=1&keywords=cgp+head+start+to+a+level&qid=1587640960&sr=8-1)

**Please bring your work with you to your first lesson.**

**Potentially useful websites:**

<https://studywise.co.uk/a-level-revision/biology/>

<https://www.s-cool.co.uk/a-level/biology>

**Link to the Specification:**

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