

Year 11 Biology (AQA Triple Science)



With most of the course already complete, this year will see students finishing off the final two units of the course and then beginning thorough revision in preparation for their exams. Homeostasis and Response is a fascinating exploration of the way the body works, incorporating both nervous and hormonal signalling in the human body. It provides a strong foundation for any students wishing to enter medical, sport or physiological fields. In Inheritance, Variation and Evolution students will learn how characteristics are passed between generations in the context of evolution. This is vital understanding for those wishing to study the fields of genetics, evolution or indeed any branch of modern biology.

The two final required practicals are carried out this year - Reaction Times and Plant Responses in the Homeostasis and Response Unit. Students will also embark on a bespoke schedule of revision tailored to both class and individuals to maximise attainment in the final examinations.

Methods of deepening and securing knowledge:

Interleaving	Starter tasks are designed to check knowledge from not only the previous lesson but also lessons earlier in the topic and sometimes even other topics within biology which they will have covered previously.
Checkpoints/ mini plenaries	These are used within lessons to check understanding and address any misconceptions before moving on.
Independent study	Educake questions are used as a means of low-stakes testing to consolidate learning and check understanding.
Assessment for Progress	Each of the topics will have an 'Even Better If' (EBI) assessment where students are provided with bespoke tasks designed to help them reach the next level in their learning.

Autumn term 1

Autumn term 2

Spring term 1

Topic(s)	Homeostasis & Response <ul style="list-style-type: none"> ● Homeostasis. ● The human nervous system <ul style="list-style-type: none"> ○ Structure and function, ○ The brain. ○ The eye. ○ Control of body temperature. ● Hormonal control in humans <ul style="list-style-type: none"> ○ Human endocrine system. ○ Control of blood glucose concentration. <p>Required practical activity 7: plan and carry out an investigation into the effect of a factor on human reaction time.</p>	Homeostasis & Response <ul style="list-style-type: none"> ● Hormonal control in humans (cont) <ul style="list-style-type: none"> ○ Negative feedback (higher tier only). ○ Maintaining water and nitrogen balance. ○ Hormones in human reproduction. ○ Contraception. ○ The use of hormones to treat infertility (higher tier only). ● Plant hormones <ul style="list-style-type: none"> ○ Control and coordination. ○ Use of plant hormones (higher tier only). <p>Required practical activity 8: investigate the effect of light or gravity on the growth of newly germinated seedlings.</p>	Inheritance, Variation & Evolution <ul style="list-style-type: none"> ● Reproduction <ul style="list-style-type: none"> ○ Sexual and asexual reproduction. ○ Meiosis. ○ Advantages and disadvantages of sexual and asexual reproduction. ○ DNA and the genome. ○ DNA structure. ○ Protein synthesis (higher tier only). ○ Genetic inheritance. ○ Inherited disorders. ○ Sex determination.
Assessment	Ongoing assessment.	First pre-public examinations End of unit test followed by EBI tasks.	Second pre-public examinations
CEIAG <i>(Careers that are linked to that topic)</i>	Neuroscience.	Endocrinology. Clinical Embryology.	Oncology. Genetic Counselling.

	Spring term 2	Summer term 1	Summer term 2
Topic(s)	Inheritance, Variation & Evolution <ul style="list-style-type: none"> ● Variation and evolution <ul style="list-style-type: none"> ○ Variation. ○ Evolution. ○ Selective breeding. ○ Genetic engineering. ○ Cloning. ● The development of understanding of genetics and evolution <ul style="list-style-type: none"> ○ Theory of evolution. 	Revision	

	<ul style="list-style-type: none"> ○ Speciation. ○ The understanding of genetics. ○ Evidence for evolution. ○ Fossils. ○ Extinction. ○ Resistant bacteria. ● Classification of living organisms. 		
Assessment	End of unit test followed by EBI tasks.	GCSE Exams (Paper 1: biology, chemistry and physics).	GCSE Exams (Paper 2: biology, chemistry and physics).
CEIAG <i>(Careers that are linked to that topic)</i>	Applied genetics. Palaeontology.		

Independent Study

Educake is used to set timely and relevant revision questions throughout the topic. There will be around 20 questions set and the difficulty will be tailored to the ability of the group. Students can immediately see their scores for this and also identify which areas are their strongest and weakest within the questions given. Senecalearning.com also provides an incredible revision resource to allow students to consolidate their learning at their own pace. Past exam questions may also be used to practise applying knowledge to different contexts.