

<u>Armfield Academy - Department of Science</u>

Year 10 Biology Curriculum Overview



- ✓ Each lesson will start with a series of questions linked to both the previous lesson and topics studied previously.
- ✔ Formative assessment of skills linked to practical work will enable students to demonstrate their acquisition of new skills.
- ✓ Students are encouraged to consolidate learning at least once a week and seek tutor help if unsure on any topics.
- ✓ Within each unit, time will be allocated for consolidation and recall before assessment, this includes for mock exams.
- ✓ The following questions will be explored within the units.
- ✓ Content in blue is only taught to the A pathway (students on the triple science route)

Half Term 1	
Date	Topic: Bioenergetics
WC 30/08	Introduction to science (expectations, standards, health and safety, introduction of key skills and assessing prior knowledge).
WC 06/09	How do plants make glucose?
WC 13/09	What factors affect photosynthesis? Required practical: Photosynthesis
WC 20/09	How do plants use glucose?
WC 27/09	How do organisms make energy?
WC 04/10	How does the body respond to exercise? What is your metabolism?
	What is your metabolism:
WC 11/09	
Half Term 2	
Date	Topic: Infection and response
WC 01/11	What are communicable diseases? How do viruses cause disease?
WC 08/11 WC 15/11	How do bacteria cause disease?
WC 15/11 WC 22/11	How do fungi cause disease?
WC 22/11 WC 29/11	How do protists cause disease?
WC 25/11 WC 06/12	How does the body defend itself against pathogens?
WC 13/12	How do vaccines work?
WC 20/12	
Half Term 3	
Date	Topic: Infection and response & Homeostasis and response
WC 03/01	How do antibiotics work?
WC 10/01	How are new drugs developed?
WC 17/01	What are monoclonal antibodies? What are the uses of monoclonal antibodies?
WC 24/01	How do we identify plant diseases? How do plants defend themselves against pathogens?
WC 31/01	What is homeostasis? What is our nervous system?
WC 07/02	How do I respond to my environment?
Half Term 4	
Date	Topic: Homeostasis and response
WC 21/02 WC 28/02	How fast can I react? Required practical: Investigating reaction times How does my brain work? How do I see?
WC 28/02 WC 07/03	How do I control my body temperature?
WC 07/03 WC 14/03	What's a hormone and where are they made?
WC 14/03 WC 21/03	How does my body control sugar levels? How does my body control water levels?
WC 28/03	How do reproductive hormones work?
Half Term 5	
Date	Topic: Homeostasis and response
WC 18/04	How do we prevent pregnancy?
WC 25/04	How can we increase fertility?
WC 02/05	What is negative feedback?
WC 09/05	How do hormones work in plants? Required practical: Investigating the effect of light and growth on newly germinated
WC 16/05	seedlings. How do humans use plant hormones?
WC 23/05	
Half Term 6	
Date WC 06/06	Topic: Inheritance, variation and evolution How do organisms reproduce?
WC 06/06 WC 13/06	How do organisms reproduce? How are gametes formed?
WC 13/06 WC 20/06	Why are there different reproductive methods?
WC 20/06 WC 27/06	What is DNA? What is the structure of DNA?
WC 04/07	How do I inherit characteristics from my parents?
WC 11/07	What are genetic disorders?
**C 11/0/	