## Armfield Academy – Department of Science



## Year 11 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: Inheritance, variation and evolution.
Week 1	How do organisms reproduce?
Week 2	How are gametes formed?
Week 3	Why are there different reproductive methods?
Week 4	What is DNA? What is the structure of DNA?
Week 5	How do I inherit characteristics from my parents?
Week 6	What are genetic disorders?
Week 7	How can I show the chances of having a boy or a girl? Why are we all different?
WCCK7	Half Term 2
Date	Topic: Inheritance, variation and evolution
Week 8	How do species change over time?
Week 9	What is selective breeding?
Week 10	What is genetic engineering? What are the steps in the process of genetic engineering?
Week 11	What is cloning? Who was Charles Darwin? How do different species evolve?
Week 12	How has our understanding of genetics changed?
Week 13	How do we group living things? Why are evolutionary trees important?
Week 14	Mock examinations
	Half Term 3
Date	Topic: Ecology
Week 15	How do living things interact within an ecosystem?
Week 16	What are abiotic and biotic factors?
Week 17	How are organisms adapted to survive in their habitats?
Week 18	Why are producers so important?
Week 19	How and why do we sample species?
Week 20	What is the carbon cycle? What is the water cycle?
TOCK 20	Half Term 4
Date	Topic: Ecology
Week 21	Why is decomposition important? How does the temperature affect the rate of decay?
Week 22	What is biodiversity and how is it maintained? What is deforestation and how does it affect global warming?
Week 23	
WCCK 25	What is waste management and why is it necessary?
Week 23 Week 24	What is waste management and why is it necessary? What are trophic levels?
Week 24	What are trophic levels?
Week 24 Week 25	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food?
Week 24 Week 25 Week 26	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5
Week 24 Week 25 Week 26 Date	What are trophic levels?   What is food security and what factors affect it? What is sustainable farming and fishing?   What is biotechnology and how can we use it to make food?   Half Term 5   Topic: Consolidation
Week 24 Week 25 Week 26 Date Week 27	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks
Week 24 Week 25 Week 26 Date Week 27 Week 28	What are trophic levels?   What is food security and what factors affect it? What is sustainable farming and fishing?   What is biotechnology and how can we use it to make food?   Half Term 5   Topic: Consolidation
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks
Week 24 Week 25 Week 26 Date Week 27 Week 27 Week 28 Week 29 Week 30	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks Revision and recap of key knowledge and required practicals
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 30 Week 31	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks
Week 24 Week 25 Week 26 Date Week 27 Week 27 Week 28 Week 29 Week 30	What are trophic levels?   What is food security and what factors affect it? What is sustainable farming and fishing?   What is biotechnology and how can we use it to make food?   Half Term 5   Topic: Consolidation   Walking talking mocks   Revision and recap of key knowledge and required practicals   GCSEs begin, Exam timetable and extra revision for assessments
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 30 Week 31 Week 32	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks Revision and recap of key knowledge and required practicals GCSEs begin, Exam timetable and extra revision for assessments Half Term 6
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 30 Week 31 Week 32 Date	What are trophic levels?   What is food security and what factors affect it? What is sustainable farming and fishing?   What is biotechnology and how can we use it to make food?   Half Term 5   Topic: Consolidation   Walking talking mocks   Revision and recap of key knowledge and required practicals   GCSEs begin, Exam timetable and extra revision for assessments
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 30 Week 31 Week 32 Date Week 33	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks Revision and recap of key knowledge and required practicals GCSEs begin, Exam timetable and extra revision for assessments Half Term 6
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 30 Week 31 Week 32 Date Week 33 Week 33	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks Revision and recap of key knowledge and required practicals GCSEs begin, Exam timetable and extra revision for assessments Half Term 6
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 30 Week 31 Week 31 Week 32 Date Week 33 Week 34 Week 35	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks Revision and recap of key knowledge and required practicals GCSEs begin, Exam timetable and extra revision for assessments Half Term 6
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 29 Week 30 Week 31 Week 32 Date Week 33 Week 33 Week 34 Week 35 Week 36	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks Revision and recap of key knowledge and required practicals GCSEs begin, Exam timetable and extra revision for assessments Half Term 6
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 29 Week 30 Week 31 Week 32 Date Week 33 Week 33 Week 34 Week 35 Week 37	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks Revision and recap of key knowledge and required practicals GCSEs begin, Exam timetable and extra revision for assessments Half Term 6
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 29 Week 30 Week 31 Week 31 Week 32 Week 33 Week 34 Week 35 Week 36 Week 38	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks Revision and recap of key knowledge and required practicals GCSEs begin, Exam timetable and extra revision for assessments Half Term 6
Week 24 Week 25 Week 26 Date Week 27 Week 28 Week 29 Week 29 Week 30 Week 31 Week 32 Date Week 33 Week 33 Week 34 Week 35 Week 37	What are trophic levels? What is food security and what factors affect it? What is sustainable farming and fishing? What is biotechnology and how can we use it to make food? Half Term 5 Topic: Consolidation Walking talking mocks Revision and recap of key knowledge and required practicals GCSEs begin, Exam timetable and extra revision for assessments Half Term 6