ARMFIELD

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

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 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? Application time: Knowledge check 1
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? Application time: Knowledge check 2
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? Application time: Knowledge check 3
Week 12	How has our understanding of genetics changed? Application time: Knowledge check 4
Week 13	How do we group living things? Why are evolutionary trees important? Application time: Knowledge check 4
Week 14	Application time: End of unit test
	Y11 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? Application time: Knowledge check 1
Week 18	Why are producers so important? Application time: Knowledge check 2
Week 19	How and why do we sample species?
Week 20	What is the carbon cycle? What is the water cycle?
Data	Half Term 4
Date Week 21	Topic: Ecology
Week 21	Topic: Ecology Why is decomposition important? How does the temperature affect the rate of decay? Application time: Knowledge check 3
Week 21 Week 22	Topic: Ecology Why is decomposition important? How does the temperature affect the rate of decay? Application time: Knowledge check 3 What is biodiversity and how is it maintained? What is deforestation and how does it affect global warming?
Week 21 Week 22 Week 23	Topic: Ecology Why is decomposition important? How does the temperature affect the rate of decay? Application time: Knowledge check 3 What is biodiversity and how is it maintained? What is deforestation and how does it affect global warming? What is waste management and why is it necessary?
Week 21 Week 22 Week 23 Week 24	Topic: Ecology Why is decomposition important? How does the temperature affect the rate of decay? Application time: Knowledge check 3 What is biodiversity and how is it maintained? What is deforestation and how does it affect global warming? What is waste management and why is it necessary? What are trophic levels?
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Week 21 Week 22 Week 23 Week 24 Week 25 Week 26 Date Week 27	Topic: Ecology Why is decomposition important? How does the temperature affect the rate of decay? Application time: Knowledge check 3 What is biodiversity and how is it maintained? What is deforestation and how does it affect global warming? What is waste management and why is it necessary? 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? Application time: End of unit test Half Term 5 Topic: Consolidation Walking talking mocks
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