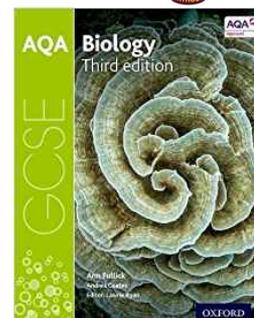




Biology Overview

Term: Autumn
Year: 10
Teacher: Ms Fatima Mamache
Textbook title: AQA GCSE Biology Oxford



What will we be covering this term?

1st Half Term:

Respiration: In this chapter students will study respiration, and should be able to recall that this is one of the most important processes in living cells. Students will study the response of humans to exercise, including changes in heart rate, breathing rate, and breakdown of glycogen, all to increase the rate of respiration in muscle cells. They should link this with work on the heart and blood vessels in B4 *Organising animals and plants*.

In studying anaerobic respiration, students should be aware of this process in mammalian muscles, and be able to write the word equation. Students should be aware that anaerobic respiration occurs in yeast cells and some plant cells.

Human nervous system: In this chapter students have studied the principles of homeostasis, and should be able to give some examples and outline the control system involved. They should be able to describe a reflex arc, with detail of synaptic transmission. Students should appreciate that receptors detect a change in a stimulus and not the stimulus itself.

2nd Half Term:

Hormonal coordination: In this chapter students will study the principles of hormonal control and the endocrine system. They should be able to identify the main parts of the endocrine system and recall the hormones they produce. Students will learn how blood-glucose concentration is controlled, including the role of insulin.

There will be an end of term exam based on what students have covered this half-term.

Teacher's Marking Key:

Mark code	Means
SP	Spelling error
//	New paragraph needed
Work underlined	Indicate a word or phrase does not make sense
?	Not clear. Rewrite this section again to improve the expression.
FS	Write in full sentences
EX	Develop your explanation further using scientific keywords.
D	You need to add more detail.
EBI	Even better if
www	What went well
GR	Grammar error
P	Punctuation error



How will my child be assessed this term?

There will be at least 2 assessed pieces this term.

In more detail;

1st Assessment: Respiration & Human nervous system

2nd Assessment: Hormonal coordination

At the end of the term there will be a summative exam that will test their knowledge for what they've covered during the course of the entire term.

How can I help my child in this subject?

- Ensure homework is complete; you can track students' homework assignments at <https://www.showmyhomework.co.uk>
- Encouragement, praise, ensuring that they do their homework; and checking their student planner.
- Encouraging them to read around the subject.
- Their notes must be in order; discipline is essential.

Resources

Useful Websites

For independent study the following websites are recommended:

- Maths skills in GCSE Biology: <https://www.my-gcse-science.com/maths-skills-gcse-biology/>
- AQA specification: <https://filestore.aqa.org.uk/resources/biology/specifications/AQA-8461-SP-2016.PDF>
- BBC Bitesize: http://www.bbc.co.uk/schools/gcsebitesize/science/add_aqa/
- Revision GCSE Biology: <http://www.gcsescience.com/pe.htm>
- Assessment resources: <https://www.aqa.org.uk/subjects/science/gcse/biology-8461/assessment-resources>
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Communications

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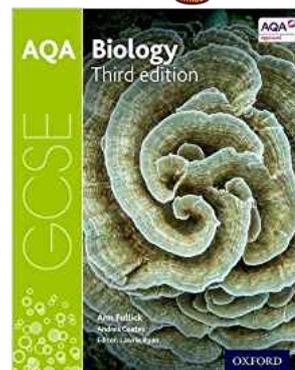
Please feel free to contact us at the school from 9.00-15:00 if you have any questions or concerns or contact me by email

Fatima.mamache@alkhairschool.org.uk.



Biology Overview

Term: Spring
Year: 10
Teacher: Ms Fatima Mam
Textbook title: AQA GCSE Chemistry Oxford
What will we be covering this term?



1st Half Term:

Reproduction: All students should be able to outline asexual and sexual reproduction, and should be aware of the importance of meiosis, fertilisation, and variation in sexual reproduction. They should link this with work on chromosomes and mitosis and the cell cycle in B2 Cell division.

Variation and evolution: This chapter students will learn about the causes of variation in terms of genetic, environmental, or a combination of both. They should link environmental variation with the effect of alcohol on a fetus in B7.5 Alcohol and other carcinogens. In studying evolution by natural selection, students will study the role of mutation in variation, understand the theory of evolution by survival of the fittest and natural selection, and be able to give examples. They should link this with previous studies on sexual reproduction and meiosis in B13.2 Cell division in sexual reproduction.

2nd Half Term:

Adaptations, interdependent, and competition: In this chapter students have studied communities, environments, adaptations, and competition. There are a number of ecological terms including community, population, habitat, ecosystem, abiotic factor, and biotic factor, and students should recall the precise meaning of each. Students should measure the distribution of organisms with quadrats and transects, and carried out a practical to investigate the population size of a common species in a habitat. They will understand how organisms are adapted to survive in many different conditions.

There will be an end of term exam based on what students have covered this half-term.

Teacher's Marking Key:

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How will my child be assessed this term?

There will be at least 2 assessed pieces this term.

In more detail;

1st Assessment: Reproduction & Variation and evolution

2nd Assessment: Adaptations, interdependent, and competition

At the end of the term there will summative exam that will test their knowledge for what they've covered during the course of the entire term.

How can I help my child in this subject?

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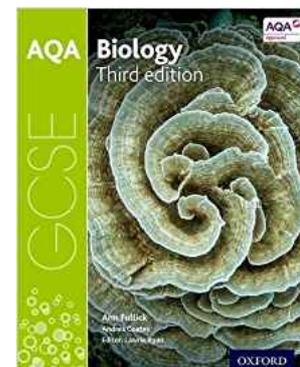
Please feel free to contact us at the school from 9.00-15:00 if you have any questions or concerns or contact me by email

Fatima.mamache@alkhairschool.org.uk.



Biology Overview

Term: Summer
Year: 10
Teacher: Ms Fatima Mamache
Textbook title: AQA GCSE Biology Oxford:



What will we be covering this term?

1st Half Term:

Organising an ecosystem: In this chapter students will study how feeding relationships are represented in food chains. They should understand the importance of photosynthesis in feeding relationships, linking with work in B8 *Photosynthesis*. They should recall the main feeding relationships within a community and understand how the numbers of predators and prey are inter-related, including interpreting predator–prey population graphs.

Students have looked at mineral cycling and the microbes involved. They should understand how materials are recycled through the abiotic and biotic components of an ecosystem, and the importance of decay.

2nd Half Term:

Biodiversity and ecosystems: In this chapter students have studied biodiversity and ecosystems, starting with the reasons for and the effects of the human population explosion. Students should understand the effect of different types of pollution including land, water, and air pollution. Students should be able to outline the processes of deforestation and peat destruction.

There will be an end of term exam based on what students have covered this half-term.

Teacher's Marking Key:

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How will my child be assessed this term?

There will be at least 2 assessed pieces this term.

In more detail;

1st Assessment: Organising an ecosystem

2nd Assessment: Biodiversity and ecosystems

At the end of the term there will summative exam that will test their knowledge for what they've covered during the course of the entire term.

How can I help my child in this subject?

- Ensure homework is complete; you can track students' homework assignments at <https://www.showmyhomework.co.uk>
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