



ARAB UNITY SCHOOL

CURRICULUM OVERVIEW

YEAR 11

2019 – 2020

A guide for Parents and Students

Syllabus aims

The aims are:

1. Provide an enjoyable and worthwhile educational experience for all learners, whether or not they go on to study science beyond this level
2. Enable learners to acquire sufficient knowledge and understanding to:
 - become confident citizens in a technological world and develop an informed interest in scientific matters
 - be suitably prepared for studies beyond Cambridge IGCSE
3. Allow learners to recognize that science is evidence based and understand the usefulness, and the limitations, of scientific method
4. Develop skills that:
 - are relevant to the study and practice of biology – are useful in everyday life – encourage a systematic approach to problem solving – encourage efficient and safe practice – encourage effective communication through the language of science
5. Develop attitudes relevant to biology such as:
 - concern for accuracy and precision – objectivity – integrity – enquiry – initiative – inventiveness
6. Enable learners to appreciate that:
 - science is subject to social, economic, technological, ethical and cultural influences and limitations – the applications of science may be both beneficial and detrimental to the individual, the community and the environment.

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| <p>Term 1</p> | <p>19 Organisms and their environment</p> <p>19.1 Energy flow</p> <p>19.2 Food chains and food webs</p> <p>19.3 Nutrient cycles</p> <p>19.4 Population size</p> <p>21 Human influences on ecosystems</p> <p>21.1 Food supply</p> <p>21.2 Habitat destruction</p> <p>21.3 Pollution</p> <p>21.4 Conservation</p> <p>14 Coordination and response</p> <p>14.1 Nervous control in humans</p> <p>14.2 Sense organs</p> <p>14.3 Hormones in humans</p> <p>14.5 Tropic réponses</p> | <p>Independent Research-Topic home work-Sep 1 begins, Sep 12 submission(Reflective learning)</p> <p>Independent Research Topic home work-Sep 19 begins, Oct 3 submission(Reflective learning)</p> <p>Investigatory Lab Experiment- Amylase (Year 10 topic-Reflective Learning)</p> <p>Investigatory experiments on Tropism-in class room(creative thinking, Enquiring)</p> | <p>Internal Assessment-Oct 10(units 19,21)</p> <p>Curricular test Oct20-24 (Units 19,21,14)</p> |
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| | 16 Reproduction | | |
| | 16.1 Asexual reproduction | | |
| | 16.2 Sexual reproduction | | |
| | 16.3 Sexual reproduction in plants | <p>Planning activity –in class room-Factors for germination(enquiring, reflective learning)</p> <p>Investigatory lab experiment-Reducing Sugar(Reflective learning, Team work, Enquiring)</p> <p>Independent research project-mass production of Insulin-Fermenter Model Begins Dec12- submission Jan 5 (self-managing, creative thinking, Reflective learning)</p> | <p>Internal assessment- Nov14(unit 16)</p> <p>Winter Exam Nov18- Dec9 (year 10 –all units Year 11-Units 19,21,14,16)</p> |
| | 16.4 Sexual reproduction in humans | | |
| | 16.5 Sex hormones in humans | | |
| | 16.6 Methods of birth control in human | | |
| | 16.7 Sexually transmitted infections (STIs) | | |
| | 17 Inheritance | | |
| | 17.1 Inheritance | | |
| | 17.2 Chromosomes, genes and proteins | | |
| | 17.3 Mitosis | | |
| | 17.4 Meiosis | | |
| | 17.5 Monohybrid inheritance | | |

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| | | | Internal assessment- Feb6(unit17) |
| Term 2 | 18 Variation and selection | | |
| | 18.1 Variation | Pedigree analysis on genetic diseases-in classroom (Reflective learning, Enquiring) | |
| | 18.2 Adaptive features 18.3 Selection | Investigatory Lab Experiment on Reducing Sugar(Reflective learning, Enquiring) | |
| | 20 Biotechnology and genetic engineering 20.2 Biotechnology 20.3 Genetic engineering 10 Diseases and immunity 15 Drugs 15.1 Drugs 15.2 Medicinal drugs 15.3 Misused drugs | Research-Say no to drugs, Alcohol, smoking (BYOD)-campaign on Nov 5(Self -managing, organising, Team working and Enquiring) | Curricular test Feb9-13 Units (17,18,20) Mocks (March 1-12) (All year 10 and 11 units as per IGCSE) |
| Term 3 | Drugs continue | | |

BYOD-Research-Say no to drugs, Alcohol, smoking

www.talktofrank.com/

<https://www.bbc.co.uk/bitesize/guides/zpn9q6f/revision/1>

BYOD-Organisms and their environment

www.bbc.co.uk/schools/gcsebitesize/science/add_aqa/foodchains/foodchains5.shtml

BYOD-Human influences on ecosystems

www.saps.org.uk/primary/teaching-resources/151-food-miles

www.bbc.co.uk/learningzone/clips/sustainable-forestry-using-animal-power/11966.html

www.bbc.co.uk/learningzone/clips/carbon-dioxide-in-the-atmosphere/4417.html

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