

Key Stage 5 Curriculum Map 2020-21

Year 12 AS Biology

Term 1

Subject: Biology	Year: 12	
Focus/Topic	UAE Links	Home Learning / Reading
Induction, curriculum orientation and expectations		
<ul style="list-style-type: none"> • Carbohydrates • Disaccharides and polysaccharides • Starch and cellulose • Pathogens • Data and diseases 	Summarise how the UAE promotes a healthy diet	Guided reading
<ul style="list-style-type: none"> • Lipids • Proteins • Food test required practical • Lifestyle and health • Causes of disease end of topic test 	Research the most common diseases in the UAE, justify why these are the most common and how to prevent them.	Guided reading
<ul style="list-style-type: none"> • Biological molecules end of topic test • Enzymes and digestion 	Justify the protocols the UAE has put into place to protect the nation against covid-19.	Guided reading
<ul style="list-style-type: none"> • Investigating the structure of cells • The electron microscope • Eukaryotic cell structure • Digestion • Absorption of the product of digestion 	Compare the plant cell of a cactus and an oak tree.	Guided reading
<ul style="list-style-type: none"> • Digestion end of topic test • Cell differentiation and organization • The structure of prokaryotic cells • Cells and cell structure end of topic test 	Explore how the camel's digestive system is adapted to living in the desert.	Guided reading

<ul style="list-style-type: none"> • Plasma membrane • Diffusion • Cholera 	Evaluate whether the UAE should utilise reverse osmosis	Guided reading
Mid Term Break		
<ul style="list-style-type: none"> • Osmosis • Osmosis required practical • Oral rehydration therapy • Human immunodeficiency virus Active transport • Human diseases end of topic test 	Create a summary about active transport within the UAE.	Guided reading
<ul style="list-style-type: none"> • Active transport • Transport into and out of cells end of topic test • Cell recognition and the cells of the immune system 	Create a summary about active transport within the UAE.	Guided reading
<ul style="list-style-type: none"> • Enzymes and enzyme action • Factors affecting enzyme action • Enzyme inhibition • Phagocytes • T lymphocytes and cell mediated immunity 	Create a summary how enzymes are utilised within the UAE.	Guided reading
<ul style="list-style-type: none"> • Enzyme required practical • Enzyme end of topic test • B lymphocytes, humoral immunity and antibodies • Vaccination 	Justify the importance of the UAE investing in immunity research.	Guided reading
<ul style="list-style-type: none"> • Exchange between organisms and their environment • Gas exchange in single cells organisms and insects • Defensive mechanisms end of topic test 	Justify why we have large insects within the UAE.	Guided reading
<ul style="list-style-type: none"> • Gas exchange in the leaf of a plant • Structure of the human gas exchange system • The mechanism of breathing 	Create a summary about respiratory disorders within the UAE	Guided reading
<ul style="list-style-type: none"> • Exchange of gases in the lungs • Haemoglobin • Oxygen-haemoglobin dissociation curves • Gas exchange and the transport of oxygen end of topic test 	Research anemia in the UAE and explain how this deficiency affects heamoglobin.	Guided reading
Winter Break		