

OREL VINE SCHOOL

Course Outline

Cambridge AS Level

BIOLOGY

<i>Term I</i>		<i>Term II</i>	
<i>Topic/Subtopic</i>	<i>Contents</i>	<i>Topic/Subtopic</i>	<i>Contents/Objectives</i>
<i>Cell structure (4 hours)</i>	<ul style="list-style-type: none"> The microscope in cell studies. Cells as basic units of living organisms 	<i>Transport in plants (3 hours)</i>	<ul style="list-style-type: none"> Structure of plant tissues Transport mechanisms.
<i>Biological molecules (8 hours)</i>	<ul style="list-style-type: none"> Testing for biological molecules Carbohydrates and lipids Proteins Water 	<i>Transport in mammals (3 hours)</i>	<ul style="list-style-type: none"> The circulatory system Transport of oxygen and carbon dioxide The heart.
<i>Enzymes (8 hours)</i>	<ul style="list-style-type: none"> Mode of action of enzymes. Factors that affect enzyme action. 	<i>Gas exchange (4 hours)</i>	<ul style="list-style-type: none"> The gas exchange system.
<i>Cell membranes and transport (4 hours)</i>	<ul style="list-style-type: none"> Fluid mosaic membranes. Movement into and out of cells. 	<i>Infectious diseases (4 hours)</i>	<ul style="list-style-type: none"> Infectious diseases antibodies
<i>Nucleic acids and protein synthesis (8 hours)</i>	<ul style="list-style-type: none"> structure of nucleic acids and replication of DNA. Protein synthesis. 	<i>Immunity (3 hours)</i>	<ul style="list-style-type: none"> The immune system. Antibodies and vaccination
<i>The mitotic cell cycle (7 hours)</i>	<ul style="list-style-type: none"> Replication and division of nuclei and cells. Chromosome behavior in mitosis. 		

Resources

- Cambridge International AS & A Level Biology Course book second edition by CJ Clegg
- Cambridge AS & A Level Biology past papers
- Ezy Education e-learning platform

Methodology

- Discovery method
- Experimentation
- Field study
- Integration of Information technology (IT)
- Research work
- Use of primary and secondary data from various sources

Mode of assessment

- Daily exercises from the coursebook
- End of month tests
- End of unit tests set from Cambridge AS & A Level Biology past papers
- Mid - term & end of term assessments
- Quizzes and assignments on the LMS
- Weekly homework assignments
- Ezy education E- learning platform.