

BIOLOGY FORM 4 2009-2010

Textbook: GCSE Biology (Third Edition) by *D.G. Mackean*

FIRST TERM

1. The Chemicals of life

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|---|--------------------|
| a. Structure, properties and functions and uses of: carbohydrates, lipids and proteins. | Pages 86-87, 11-13 |
| b. The importance of water in organisms | Pages 11, 88-90 |
| c. Vitamins | Pages 13, 88-89 |
| d. Mineral requirements of organisms | Pages 13, 87-88 |
| e. Enzymes | Pages 14-18 |

2. Transport in Cells

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| a. Diffusion | Pages 26-27 |
| b. Osmosis | Pages 29-34 |
| c. Active Transport | Pages 28 |

2. Getting energy from food

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| a. Aerobic respiration | Pages 19-20 |
| b. Anaerobic respiration | Page 20 |
| c. Experiments on respiration | Pages 21-24 |
| d. Economic importance of products derived from anaerobic respiration of certain micro-organisms | Pages 326-332 |
| e. Breathing and characteristics of respiratory surfaces | Pages 123-127 |
| f. Health hazards connected with breathing
5 practical sessions / experiments | Pages 127-129 |

SECOND TERM

3. Blood Composition, Function and Circulation

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| a. Blood composition | Pages 108-109 |
| b. Blood functions | Pages 116-117 |
| c. Immunity | Pages 117-118 |
| d. Clotting | Pages 117 |
| c. The Heart | Pages 110-111 |
| d. Arteries, veins and capillaries | Pages 111-114 |
| f. Body fluids: blood, tissue fluid and lymph. | Pages 115 |

4. Conditions supporting life

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| a. Skin and temperature control in humans | Pages 137-139 |
| b. Excretion and the human urinary system | Pages 131-136 |
- 3 practical sessions / experiments

THIRD TERM

5. Feeding relationships

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| a. Plants as producers and photosynthesis | Pages 35-46 |
| b. Animals as consumers, feeding and digestion
6 experiments + 1 investigation + 1 fieldwork outing | Pages 97-107 |

ASSESSMENT MARK DESCRIPTION

TERM	<i>Classwork/ Homework (40%)</i>	<i>Practical Work (20%)</i>	<i>Effort (20%)</i>	<i>Participation (10%)</i>	<i>Behaviour (10%)</i>	<i>TOTAL MARK (100%)</i>
November	4	2	2	1	1	10
Mid Year	8	4	4	2	2	20
Annual	8	4	4	2	2	20