

PORTION FOR FINAL ASSESSMENT - MAY 2021

YEAR 9 - BIOLOGY

<p><u>Topic 1 – Key Biological Concepts</u></p> <ol style="list-style-type: none">1. Microscopes2. Plant & animal cells.3. Using Microscopes. Core practical – Using Microscopes4. Specialized cells .5. Inside bacteria.6. Enzymes & Nutrition.7. Testing foods. Core practical – Testing Foods8. Enzyme action.9. Enzyme activity.10. pH & enzymes. Core practical – pH & enzymes11. Transporting substances .12. Osmosis in potato slices. Core practical – Osmosis in potato slices	<p><u>Topic 2– Cells and Control</u></p> <ol style="list-style-type: none">1. Mitosis.2. Growth in animals.3. Growth in plants.4. Stem cells <p><u>Topic 3 – Genetics</u></p> <ol style="list-style-type: none">1. Sexual and asexual reproduction.2. Meiosis. <p><u>Topic 8 – Exchange & transport in animals</u></p> <ol style="list-style-type: none">1. Efficient transport and exchange2. Factors affecting diffusion3. Cellular Respiration <p><u>Extra GL exam topics</u></p> <ol style="list-style-type: none">1. Cell & Organisation2. The skeletal and muscular system3. Nutrition and Digestion4. Gas exchange system - plants & humans (effects of smoking)5. Reproduction (Sexual & Asexual)6. Cellular respiration7. Relationship in an ecosystem8. Heredity & Evolution
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YEAR 10 - BIOLOGY

Topic 1– Key Biological Concepts

1. Microscopes.
2. Plant & animal cells.
3. Using Microscopes.
Core practical – Using Microscopes
4. Specialized cells .
5. Inside bacteria.
6. Enzymes & Nutrition.
7. Testing foods.
Core practical – Testing Foods
8. Enzyme action.
9. Enzyme activity.
10. pH & enzymes.
Core practical – pH & enzymes
11. Transporting substances .
12. Osmosis in potato slices.
Core practical – osmosis in potato slices

Topic 2– Cells and Control

1. Mitosis.
2. Growth in animals.
3. Growth in plants.
4. Stem cells.

Topic 3 – Genetics

1. Sexual and asexual reproduction.
2. Meiosis.
3. DNA.
4. DNA extraction.
5. Protein synthesis.
6. Genetic variants & phenotypes.
7. Mendel.
8. Alleles.
9. Inheritance.
10. Multiple and missing alleles.
11. Gene mutations.

Topic 4– Natural selection and Genetic modification

1. Evidence for human evolution.
2. Darwins theory.
3. Development of Darwin's theory.
4. Classification.
5. Breeds and varieties.
6. Tissue Culture.
7. Genes in agriculture and medicine.
8. Fertilisers and biological control.

Topic 5 – Health, Disease and the Development of medicines

1. Health and Disease.
2. Non-communicable diseases.
3. Cardiovascular diseases.

Topic 8 – Exchange & transport in animals

1. Efficient transport and exchange
2. Factors affecting diffusion

Extra GL exam topics

1. Cell & Organisation
2. The skeletal and muscular system
3. Nutrition and Digestion
4. Gas exchange system - plants & humans (effects of smoking)
5. Reproduction (Sexual & Asexual)
6. Cellular respiration
7. Relationship in an ecosystem
8. Heredity & Evolution

YEAR 12 - BIOLOGY

Biology B - Book 1 & 2

<p>Topic 2- Cells and viruses 2.1- Eukaryotic cells. 2.2- Prokaryotic cells. 2.3 -Eukaryotic cell division- mitosis. 2.4 -Meiosis and sexual reproduction.</p> <p>Topic 3- Classification 3.1- Classification</p> <p>Topic 7 – Modern genetics 7.1 -Using gene sequencing</p>	<p>Topic 1- Biological molecules 1.3 Biological molecules 2. 1.4 Enzymes.</p> <p>Topic 4 – Exchange and transport 4.1- Cell transport mechanisms 4.2- Gas exchange 4.3- Circulation 4.4- Transport in plants</p>
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