

HIGHFIELDS SCHOOL

CURRICULUM OVERVIEW 2023-2024



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SUBJECT: GCSE BIOLOGY

EXAMINATION BOARD: OCR

AUTUMN TERM - YEAR 9

SPRING TERM - YEAR 9

SUMMER TERM - YEAR 9

Classes will take a differentiated route through the Year 9 curriculum with work targeted at Foundation and Higher level.

B1: Cell level systems

- B1.1 - Cell structures
- B1.2 - What happens in cells (and what do cells need)?
- B1.3 - Respiration
- B1.4 – Photosynthesis

Potential Practical Activities

- Microscopy
- Enzyme Investigations
- Fermentation Investigation
- Aerobic Exercise Investigation
- Photosynthesis Investigations

ASSESSMENT

- B1.1 Cell structures
- B1.2 What happens in cells?
- B1.3 Respiration

B1: Cell level systems

- Revision

B2: Scaling up

- B2.1 - Supplying the cell

Potential Practical Activities

- Photosynthesis Investigations
- Osmosis Investigations
- Specialised cells and mitosis microscopy

ASSESSMENT

- B1.4 Photosynthesis
- B1 module assessment
- B2.1 Supplying the cell

B2: Scaling up

- B2.2 - The challenges of size

B3: Organism level systems

- B3.1 - Coordination and control – the nervous system

Potential Practical Activities

- Demonstration of heart structure
- Investigating of reaction times by ruler drop

ASSESSMENT

- B2.2 Challenges of size
- B2 module assessment
- Year 9 end of year exam (B1 + B2)

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AUTUMN TERM - YEAR 10	SPRING TERM - YEAR 10	SUMMER TERM - YEAR 10
<p>B3: Organism level systems</p> <ul style="list-style-type: none"> B3.2 - Coordination and control – the endocrine system B3.3 - Maintaining internal environments <p>B4: Community level systems</p> <ul style="list-style-type: none"> B4.1 – Ecosystems <p>Potential Practical Activities</p> <ul style="list-style-type: none"> Investigation into heat loss from plasticine shapes Investigating leaf size and light intensity 	<p>B4: Community level systems</p> <ul style="list-style-type: none"> B4.1 – Ecosystems <p>Potential Practical Activities</p> <ul style="list-style-type: none"> Investigating the rate of decay 	<p>B5: Genes, inheritance and selection</p> <ul style="list-style-type: none"> B5.1 - Inheritance B5.2 - Natural selection and evolution B6.1 - Monitoring and maintaining the environment B6.2 - Feeding the human race <p>Potential Practical Activities</p> <ul style="list-style-type: none"> Investigating variation Model of Meiosis Investigation of ecological sampling methods
<p>ASSESSMENT</p> <ul style="list-style-type: none"> B3.2 The endocrine system B3.3 Maintaining internal environments B3 module examination 	<p>ASSESSMENT</p> <ul style="list-style-type: none"> B4 module assessment 	<p>ASSESSMENT</p> <ul style="list-style-type: none"> B5.1 Inheritance B5.2 Natural selection and evolution End of school exams (B1 – B3)
AUTUMN TERM - YEAR 11	SPRING TERM - YEAR 11	SUMMER TERM - YEAR 11
<p>B6: Global challenges</p> <ul style="list-style-type: none"> B6.2 - Feeding the human race B6.3 - Monitoring and maintaining health <p>Potential Practical Activities</p> <ul style="list-style-type: none"> Investigation into growth bacterial cultures using aseptic techniques 	<p>B6: Global challenges</p> <ul style="list-style-type: none"> B6.3 - Monitoring and maintaining health <p>Potential Practical Activities</p> <ul style="list-style-type: none"> Investigating the effect of antibiotics on the growth of bacteria 	<p>Revision and intervention - Topics B1 to B6</p>
<p>ASSESSMENT</p> <ul style="list-style-type: none"> B6.2 Feeding the human race Mock examination B1-B3 	<p>ASSESSMENT</p> <ul style="list-style-type: none"> B6.3 Monitoring and maintaining health Mock examination B4-B6 	<p>ASSESSMENT</p> <p>Final GCSE Examinations</p> <ul style="list-style-type: none"> B1 to B3 and B7 B4 to B6 and B7