

Year 8 Overview 2023-24 – Biology

Units Studied & Learning Outcomes

Overview of Unit/No. lessons

Photosynthesis/12 lessons

Lesson Sequence of Content:

Photosynthesis:

Lesson1- What is Photosynthesis

Lesson 2- Testing a leaf for starch

Lesson 3- Measuring the rate of Photosynthesis

Lesson 4- The structure of a leaf

Lesson 5- The role of the Stomata in gas exchange

Lesson 6- Plant transport systems

Lesson 7- Healthy Plant growth

Lesson 8- Food Chains and Food Webs

Lesson 9- Ecosystems and Biodiversity

Lesson 10- The Carbon Cycle

Lesson 11- Quick quiz and Application

Lesson 12- Long Answer question

Prior	Current	Next
Year 7- Cell structure	Understand the interdependence of organisms and their reliance on Photosynthesis.	Year 10 – Photosynthesis Year 11 – Ecology

- **GW:** Recall the main facts relating to Photosynthesis
- **BI:** Describe how food webs are constructed and relate this to energy from the Sun
- **EW:** Explain how ecosystems function and the role of biodiversity in maintaining stability.

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Overview of Unit/No. lessons

Health: 12 lessons

Lesson Sequence of Content:

Lesson 1- What is a microbe?

Lesson 2- How microbes cause illness

Lesson 3- Internal and external body defence mechanisms

Lesson 4- Practical – Investigating microbial growth

Lesson 5- Vaccinations and antibiotics

Lesson 6- What is a drug?

Lesson 7 & 8- Practical HSW – Investigating caffeine on reaction times

Lesson 9- Effects of smoking on the human body

Lesson 10- Effects of alcohol on the human body

Lesson 11- Quick quiz and Application

Lesson 12- Long Answer question

<table><tr><th>Prior</th><th>Current</th><th>Next</th></tr><tr><td>Year 6 – Microbes, lifestyle and health Year 7- Organ systems, Cell organelles</td><td>KS3 NC - Understand the effects of recreational drugs on behaviour, health and life processes Understand structural adaptations of some unicellular organisms.</td><td>Year 10 – Nervous system, pathogens and health</td></tr></table> <ul style="list-style-type: none">• GW: State types of microbes that exist and identify ways that they can infect us. State ingredients in a cigarette and organs affected by alcohol• BI: Compare parts of microbes with other cell types. Explain how white blood cells perform their roles• EW: Can consider the impact of alcohol and cigarettes on human health and how they affect wider society. Consider potential issues with antibiotics and vaccinations. <p>○</p>	Prior	Current	Next	Year 6 – Microbes, lifestyle and health Year 7- Organ systems, Cell organelles	KS3 NC - Understand the effects of recreational drugs on behaviour, health and life processes Understand structural adaptations of some unicellular organisms.	Year 10 – Nervous system, pathogens and health	
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<p>Overview of Unit/No. lessons Respiration: 9 lessons</p> <p><u>Lesson Sequence of Content:</u> Lesson 1- Aerobic Respiration Lesson 2- Anaerobic Respiration Lesson 3- Fermentation Lesson 4- The Lungs and Breathing Lesson 5- Changes during Exercise Lesson 6- Skeleton Lesson 7- Muscles Lesson 8- Quick quiz and Application Lesson 9- Long Answer question</p> <table><tr><th>Prior</th><th>Current</th><th>Next</th></tr><tr><td>Year 7 topic- Cell structure</td><td>Understand respiration and the function of some Organ systems linked to this process</td><td>Year 10 – Respiration in Humans and Plants</td></tr></table> <ul style="list-style-type: none">• GW: Recall the main facts about aerobic and anaerobic respiration• BI: Describe the role of respiration in plants and animals	Prior	Current	Next	Year 7 topic- Cell structure	Understand respiration and the function of some Organ systems linked to this process	Year 10 – Respiration in Humans and Plants	
Prior	Current	Next					
Year 7 topic- Cell structure	Understand respiration and the function of some Organ systems linked to this process	Year 10 – Respiration in Humans and Plants					

- **EW:** Explain the role of the Skeleton and muscles and how energy released during respiration is utilised.

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