

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

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

- **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.

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Overview of Unit/No. lessons

Respiration: 9 lessons

Lesson Sequence of Content:

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

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

- **GW:** Recall the main facts about aerobic and anaerobic respiration
- **BI:** Describe the role of respiration in plants and animals

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

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