



Greenwood School Curriculum Summary

Subject: Science

Year: 11 & XGB

Term: Spring 1

<u>Lesson name</u>	<u>Lesson outline</u>	<u>Online link(s)</u>	<u>Other Resources</u>
Photosynthesis	You will look at the photosynthesis word and formula equation. The uses of glucose within a plant are explained and the results of the test for starch are described with relevance to the photosynthesis process.	https://classroom.thenational.academy/lessons/photosynthesis-cni36r	
Photosynthesis required practical part 1	You will look at the variables in an experiment that are changed, measured and controlled. We will explain the first few steps of the scientific method and how to test a hypothesis. Describe how to design a table to collect and record data to test a hypothesis.	https://classroom.thenational.academy/lessons/photosynthesis-required-practical-cmrk4t	
Photosynthesis required practical part 2	You will look at the photosynthesis required practical. We will follow along with the scientific method by first looking at the hypothesis, then planning a method to test the hypothesis. We will look at the scientific variables and practice identifying the variables for different hypothesis. Finally we will design a table to collect the results of the practical.	https://classroom.thenational.academy/lessons/photosynthesis-required-practical-results-c4tp4t	
Limiting factors of photosynthesis	You will continue to investigate the limiting factors of photosynthesis and interpret the graphs that investigate when one factor becomes the limiting factor over another.	https://classroom.thenational.academy/lessons/limiting-factors-of-photosynthesis-crw68d	
Photosynthesis review	You will review the key concepts of photosynthesis that we have covered so far in this unit.	https://classroom.thenational.academy/lessons/review-photosynthesis-6wvpat	
Respiration	You will learn the definition of respiration and its importance in the body. We will look at how the body changes during exercise and why these changes are necessary.	https://classroom.thenational.academy/lessons/respiration-71jpcce	
Anaerobic respiration	You will look at anaerobic respiration and the consequences that it has. We will investigate the results of a simple anaerobic respiration experiment and compare aerobic to anaerobic respiration.	https://classroom.thenational.academy/lessons/anaerobic-respiration-cdqk6d	
Consequences of anaerobic respiration	You will investigate oxygen debt, specifically how anaerobic respiration causes oxygen debt and how our body compensates and recovers.	https://classroom.thenational.academy/lessons/consequences-of-anaerobic-respiration-6rr30c	

Metabolism	You will define the term metabolism and look at examples of reactions in metabolism. We will then investigate the formation of lipids, amino acids and urea.	https://classroom.thenational.academy/lessons/metabolism-6rw3gc	
Respiration review	You will review the process of respiration and all of the key concepts that we have learned in the second half of this unit.	https://classroom.thenational.academy/lessons/end-of-topic-review-65j62d	
Mock revision (Biology)	You will revise: <i>cells and their specialisations, microscopes, movement of substances, cell division, uses of stem cells, substances in our food, enzymes and digestion, the circulatory system, non-communicable diseases, plants and their transport system, infectious diseases in animals and plants, immunity and vaccines, testing new drugs, photosynthesis, types of respiration and metabolism.</i>	https://classroom.thenational.academy/units/cell-biology-b859 https://classroom.thenational.academy/units/organisation-2345 https://classroom.thenational.academy/units/organisation-2345 https://classroom.thenational.academy/units/infection-and-response-4f71	
Mock revision (Chemistry)	You will revise: <i>Atoms, elements and compounds, chemical formulae, separation techniques, isotopes, electronic configuration, the Periodic Table and its groups, types of bonding, structures of carbon, chemical calculations, metal reactivity, and displacement reactions, acids and alkalis, making salts, electrolysis, endothermic and exothermic reactions and bond energies.</i>	https://classroom.thenational.academy/units/atomic-structure-and-periodic-table-c831 https://classroom.thenational.academy/units/bonding-structure-and-the-properties-of-matter-e93f https://classroom.thenational.academy/units/quantitative-chemistry-4db7 https://classroom.thenational.academy/units/chemical-changes-a5ba https://classroom.thenational.academy/units/energy-changes-b607	
Mock revision (physics)	You will revise: <i>particle models, density, latent heat, pressure, energy transfers, types of energy, specific heat capacity, renewable and non-renewable energies, electrical circuits and their components, atomic structure and radioactivity.</i>	https://classroom.thenational.academy/units/particle-model-of-matter-a6d5 https://classroom.thenational.academy/units/energy-c750 https://classroom.thenational.academy/units/electricity-f083 https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/physics	
Relative formula mass	You will recap briefly on relative atomic mass and students will calculate relative formula mass and percentage composition of an element in a compound.	https://classroom.thenational.academy/lessons/relative-formula-mass-ft-only-64r3cc	
Balancing equations	You write chemical formulae using knowledge of ion charges and balance equations using the same number of atoms rule.	https://classroom.thenational.academy/lessons/balancing-equations-ft-only-64vk6e	
Reacting masses	You will apply the law of the conservation of mass and explain why the mass in a reaction may appear to increase or decrease.	https://classroom.thenational.academy/lessons/reacting-masses-ft-only-70wk4r	
Concentration	You will define the word concentration and calculate concentration from mass and volume. Students will also be able to work out the mass of a substance in a given volume of a solution of known concentration.	https://classroom.thenational.academy/lessons/concentration-6rr6cc	
Quantitative chemistry review	You will review the foundation content of the quantitative chemistry unit.	https://classroom.thenational.academy/lessons/review-ft-only-65hk6r	

