Love of Learning, Opportunity, Resilience, Respect

2024-2025 Boston High School Science KS3 and Biology KS4 and KS5 Curriculum Overview

Year 7 and 8: Biology / Chemistry / Physics

Year	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
7	Intro Topic Organisms	Matter Forces	Reactions Ecosystems	Electromagnets Earth	Energy Genes	Waves
	Note: Some topics will be taught at different times due to split classes and staff working days, however all students will cover each topic above throughout the year.					
8	Forces/Energy Organisms Matter/Reactions	Organisms/Genes/Ecosystems Electromagnets	Reactions Electromagnets /Waves Ecosystems	Matter Energy / Waves Genes	Waves/Energy Genes	Earth Energy/Waves
	Note: Some topics will be taught at different times due to split classes and staff working days, however all students will cover each topic above throughout the year.					
9	Cells, Microscopy and diffusion	Osmosis and active transport	Cell cycle and stem cells	Animal Organisation: Digestion and Enzymes	Animal Organisation: gas exchange and transport	Animal Organisation: non-communicable diseases and links to lifestyle
10	Plant Organisation and Bioenergetics: photosynthesis	Bioenergetics: Photosynthesis and Respiration	Bioenergetics: Respiration and Metabolism, Infection and Response	Infection and Response	Ecology: Ecosystems, energy flow, energy efficiency	Ecology: Biodiversity and Conservation
11	Ecology: Energy flow, farming and decay	Homeostasis and Response- nervous system, brain and eye	Homeostasis and Response- endocrine system	Inheritance and Variation	Variation and Evolution	REVISION
12	Ions, Water, Carbohydrates and Lipids Cells, and Cell structure Transport across membranes	Proteins and Enzymes Transport across membranes and Mitosis	Nucleic acids, ATP, Digestion and Absorption, DNA, Protein Synthesis, Cell recognition and SA:V ratio	Genetic diversity and Adaptations, Gas exchange, Mass transport	Species, Biodiversity, Mass transport	Respiration, Energy and ecosystems, and Essay Q introduction
13	Photosynthesis, and Organisms respond to changes in their internal and external environments	Nervous coordination And Genetics, populations, evolution and ecosystems	Muscle contraction, Homeostasis, Control of gene expression	Homeostasis Control of gene expression		

NOTE: The timings may vary due to the needs of individual students and classes (especially KS3 due to classes having shared teachers) but it is envisaged that all classes will cover the curriculum above.