BHBS Year 9 Science Learning Journey

Autumn	Spring	Summer
9A Inheritance & Genetics • Identify inherited and environmental characteristics (AO1) • Describe the process of fertilisation (AO2) • Explain variations in species (AO2) • Discuss selective breeding & genetic modification (AO3) •	**9C Plants** • Describe the essential processes of photosynthesis and respiration (AO2) • Describe the structure and adaptions of a leaf (AO2) • Evaluate GM and selective breeding (AO3) • Use models to explain changes in the environment (AO2) •	**9D Forensic Science** • Recall the life cycle of plants (AO1) • Numeracy skills - Extract and interpret information from charts (AO2) • Recall parts of the nervous system (AO1) • Describe the science behind and develop memory recall (AO2)
9B Health & Fitness • Identify factors affecting fitness (AO1) • Recall the word equation for respiration (AO1) • Describe the process of ventilation (AO2) • Explain factors adversely affecting health (AO2) • Numeracy skills – plot data (AO2)	**9F Metals & Acid reactions** • Write words equations for oxidation reactions (AO2) • Compare the reactivity of metals (AO2) • Describe methods of protecting metals (AO2) • Practical skills - Identify safe practical methods (AO2) • Describe the test for Hydrogen gas (AO1)	**9H Chemical Reactions** • Identifying and comparing properties of materials (AO1/2) • Describe the signs of a chemical reaction (AO1) • Use a model to explain why mass is conserved in a chemical reaction (AO2) • Construct word & formulae equations for chemical reactions (AO2) • Practical Skills – Identify safety precautions (AO1)
9E Reactions of Acids • Identify properties of metals (AO1) • Write word equations for the reactions of acids (AO2) • Identify neuralisation reactions (AO2) • Use models to represent reactions (AO2) • Practical skills - plan a method (AO2) • Describe the test for CO_2 (AO2)	**9G Pollution & Climate Change** • Names sources of natural pollution (AO1) • Describe causes and effects of acid rain (AO2) • Describe the causes and effects of carbon dioxide in the atmosphere (AO2) • Discuss climate change (AO3)	**9K Speed and Forces** • Recall the equation to calculate speed (AO1) • Practical skills - devise a method to find speed (AO2) • Numeracy - Calculate speed – distance/time graphs (AO2) • Identify forces (AO1) • Describe the effects of balanced and unbalanced forces (AO2)
9I Energy • Recall Types of Energy (AO1) • Describe how electricity is generated (AO2) • Literacy skills - Discuss advantages and disadvantages of renewable and non-renewable energy resources (AO3)	**9J Forces & Space** • Recall the equation W=mg (AO1) • Calculate Weight (AO2) • Describe the effects of gravity (AO2) • Numeracy skills – Construct graphs & Analyse planetary data (AO2) • Evaluate models of the Solar System (AO3)	**9L Electricity** • Practical skills- construct series and parallel circuits (AO2) • Identify circuit symbols (AO1) • Devise a model for current (AO2) • Numeracy skills – Apply V = I x R (AO2) • Identify energy changes in circuits (AO1)