YEAR 7 CURRICULUM MAP:
Biology

Term 1:	Assessment Point: Summative or AFL?	Term 2:	Assessment Point: Summative or AFL?	Term 3:	EOY Assessment Point
Overarching unit intent (KSU): Introduction to Science Organisms 3.8.2 Explain why multi-cellular organisms need organ systems to keep their cells alive. 3.8.1 Explain how a physical property of part of the skeleton relates to its function. 3.8.1 Explain how antagonistic muscles produce movement around a joint. 3.8.1 Use a diagram to predict the result of a muscle contraction or relaxation. 3.8.1 Explain how antagonistic muscles produce movement around a joint. 3.8.2 Explain how to use a microscope to identify and compare different types of cell. Find arithmetic means Construct and interpret frequency tables and bar charts	*Term 1* *Baseline Assessment HT1* *Block Test (All units) HT2*	*Overarching unit intent (KSU):* *Ecosystems* *3.9.1 Combine food chains to form a food web.* *3.9.1 Explain effects of environmental changes and toxic materials on a species' population.* *3.9.1 Suggest what might happen when an unfamiliar species is introduced into a food web.* *3.9.2 Identify parts of the flower and link their structure to their function.* *3.9.2 Describe the main steps that take place when a plant reproduces successfully.* Find arithmetic means Construct and interpret frequency tables and bar charts Substitute numerical values into algebraic equation	*HT3 & HT4 (with elements of HT1 & HT2)* *Block test HT3*	*Overarching unit intent (KSU):* *Genes* *3.10.1 Explain whether characteristics are inherited, environmental or both.* *3.10.1 Explain whether characteristics are inherited, environmental or both.* *3.10.1 Explain how variation helps a particular species in a changing environment.* *Explain the changes during puberty for boys and girls* *2.5 Write in a style to fit purpose and audience.* *Describe the function of the main structures in the male and female reproductive systems.* *3.10.2 Describe causes of low fertility in male and female reproductive systems.* Construct and interpret frequency tables and bar charts Substitute numerical values into algebraic equations Understand simple probability	*HT1 – HT6 KSU* *End of year summative assessment all content*
		Term 1 core KSU re-visit *Which KSU will be revisited?* *Following HT2 assessment*		*Term 2 core KSU Re-visit* *Following HT3 assessment* *Exam preparation week*	

YEAR 8 CURRICULUM
MAP: Biology

Term 1:	*Assessment Point: Summative or AFL?*	Term 2:	*Assessment Point: Summative or AFL?*	Term 3:	EOY Assessment Point
Overarching unit intent (KSU): Year 7 review unit Organisms - 3.8.3 Explain how the parts of the gas exchange system are adapted to their function. - 3.8.3 Explain observations about changes to breathing rate and volume. - 3.8.3 Explain how exercise, smoking, and asthma affect the gas exchange system. - 3.8.3 Explain observations about changes to breathing rate and volume. - 3.8.3 Explain how changes in volume and pressure inside the chest move gases in and out of the lungs. -. Solve simple algebraic equations Find arithmetic means	*Term 1* *HT1 Block test Includes All Y7 material*	*Overarching unit intent (KSU):* *Ecosystems* *3.9.3 Use word equations to describe aerobic and anaerobic respiration.* *- 3.9.3 Explain how specific activities involve aerobic or anaerobic respiration.* *- 3.9.3 Explain how specific activities involve aerobic or anaerobic respiration.* *Genes* *3.10.3 Use evidence to explain why a species has become extinct or adapted to changing conditions.* *- 3.10.3 Predict and explain the changes in a population over time due to natural selection.* *- 3.10.3 Evaluate whether evidence for a species changing over time supports natural selection.* Construct and interpret frequency tables and bar charts Overarching unit intent (KSU): Solve simple algebraic equations Find arithmetic means Understand simple probability *Term 1 core KSU re-visit* *Which KSU will be revisited?* *Following HT1 & HT3 assessment*	*HT3 & HT4 (with elements of HT1 & HT2)* *HT3 Block test Includes all Y7&8 material so far covered*	*Overarching unit intent (KSU):* *Nervous system* *Information from receptors passes along cells (neurones) as electrical impulses to the central nervous system (CNS). The CNS is the brain or the spinal cord. The CNS coordinates the response of effectors which may be muscles contracting or glands secreting hormones.* *stimulus → receptor → coordinator → effector → response* *Organising plants and animals* *recognise the components of blood, describe their functions, and* *summarise the process of blood clotting. They should recognise the three main types of blood vessel, link their structures with their functions, and understand the importance of a double circulatory system.* Solve simple algebraic equations Find arithmetic means Use a scatter diagram to identify a correlation between two variables *Term 2 core KSU* *Re-visit* *Prior to HT6 Exams*	*HT1 – HT6 KSU* *End of year summative assessment* *Covers all y7 & 8 work*

YEAR 9 CURRICULUM MAP:
Science

Term 1:	Assessment Point: Summative or AFL?	Term 2	Assessment Point: Summative or AFL?	Term 3:	EOY Assessment Point
Overarching unit intent (KSU): Cell Structure and transport students will learn about microscopy and cells, and will be able to explain how the development of microscopy techniques, particularly electron microscopy, has enabled scientists to investigate the sub-cellular structures. Students will be able to differentiate between animal and plant cells, differentiate between eukaryotic and prokaryotic cells. Change the subject of an equation Solve simple algebraic equations	*Term 1* *HT1 Summative Assessment*	*Overarching unit intent (KSU):* *Organisation and the digestive system students will learn about the principles of organisation. Building on their knowledge of differentiation and specialisation of cells, they should be able to define a tissue, an organ, and an organ system.* *Students should understand the hierarchical organisation of the digestive system – f*Use ratios, fractions and percentages Find arithmetic means Translate information between graphical and numeric form Use a scatter diagram to identify a correlation between two variables *Term 1 core KSU re-visit* *Which KSU will be revisited?* *Prior to HT3 summative assessment*	*HT3 & HT4 (with elements of HT1 & HT2)* *HT3 summative assessment*	*Overarching unit intent (KSU):* *Organisation of Plants and animals* *Students will study breathing and gas exchange, and should recognise the main structures of the gas exchange system along with their functions. They should know that gas exchange happens in the alveoli and describe adaptations of alveoli. They should be able to describe the processes of ventilation and gas exchange and the differences in composition of inhaled and exhaled air.* *In studying plant tissues and organs, students should be familiar with the different plant tissues and their functions.* Use ratios, fractions and percentages Find arithmetic means Translate information between graphical and numeric form Use a scatter diagram to identify a correlation between two variables *Term 2 core KSU* *Prior to End of Year assessment*	*HT1 – HT6 KSU* *HT6 End of year assessment All topics included*

YEAR 10CURRICULUM
MAP: Biology

Term 1:

Overarching unit intent (KSU):

Year 9 Review topic
Communicable diseases
students will see how the concept of health (as a state of physical and mental well-being) is affected by communicable (infectious) diseases..

Preventing and treating disease
students will study the prevention of disease by vaccination. They should know how the immune system works and what is meant by an antigen.

Recognise and use expressions in decimal form
Recognise and use expressions in standard form
Use an appropriate number of significant figures
Use a scatter diagram to identify a correlation between two variables

Assessment Point: Summative or AFL?

Term 1

HT1 summative assessment including all Y9 topics

Term 2

Overarching unit intent (KSU):

Non-communicable disease
students will study non-communicable diseases and should understand what is meant by risk factors for a disease. Photosynthesis
students will study photosynthesis in both plants and algae.
Respiration
students will study respiration, and should be able to recall that this is one of the most important processes in living cells.
Substitute numerical values into algebraic equations using appropriate units for physical quantities
Translate information between graphical and numeric form
Understand and use the symbols: =, <>, >, ∝ , ~

Term 1 core KSU re-visit

End of HT2

Assessment Point: Summative or AFL?

HT3 & HT4 (with elements of HT1 & HT2)

HT3 summative assessment
All y9 + Y10

Term 3:

Overarching unit intent (KSU):

Human nervous system
Students have study the principles of homeostasis, and should be able to give some examples and outline the control system involved. They should link this work with studies on enzyme action in B3.2 The human digestive system and B3.4 Catalysts and enzymes. Students should recall details of the human nervous system and its structure and function. They should link this with work on nerve cells in B1.4 Specialisation in animal cells. They should be able to describe a reflex arc, with detail of synaptic transmission. Students should appreciate that receptors detect a change in a stimulus and not the stimulus itself. They should be able to describe an electrical impulse accurately
GCSE review unit

Change the subject of an equation
Substitute numerical values into algebraic equations using appropriate units for physical quantities
Solve simple algebraic equations
Understand that y = mx + c represents a linear relationship
Translate information between graphical and numeric form

Term 2 core KSU
Re-visit

End of HT4

EOY Assessment Point

HT1 – HT6 KSU

HT6 summative assessment

All Y9&10 topics

YEAR 11 CURRICULUM MAP: Biology

Term 1:	*Assessment Point: Summative or AFL?*	Term 2:	*Assessment Point: Summative or AFL?*	Half Term 5:	EOY Assessment Point
Overarching unit intent (KSU): GCSE review unit Hormonal coordination students have studied the principles of hormonal control and the endocrine system. They should be able to identify the main parts of the endocrine system and recall the hormones they produce. Students should recall how blood-glucose concentration is controlled, including the role of insulin. *Variation and Evolution* *students should understand the role of mutation in variation, understand the theory of evolution by survival of the fittest and natural* *selection, and be able to give examples. They should link this with previous studies on sexual reproduction and meiosis.* Change the subject of an equation Substitute numerical values into algebraic equations using appropriate units for physical quantities Solve simple algebraic equations Understand that y = mx + c represents a linear relationship Translate information between graphical and numeric form Understand simple probability	*Term 1* *HT1 Summative assessment all y9&10 units* *HT2 Mock exam*	*Overarching unit intent (KSU):* *Adaptation* *Students should understand the importance of communities including the interdependence of all the species present, and be able to give real examples Ecosystems* *Students have studied the water cycle and should recall the main stages of condensation, precipitation, evaporation, transpiration, and respiration. They should understand what the carbon cycle is and recall the processes that remove carbon dioxide from the atmosphere and return it again. They should understand the role of microbes in the carbon cycle as carrying out respiration to release carbon dioxide.* *Biodiversity* *students study biodiversity and ecosystems, starting with the reasons for and the effects of the human population explosion. Students should understand the* *effect of different types of pollution including land, water, and air pollution.* Understand the principles of sampling as applied to scientific data Change the subject of an equation Substitute numerical values into algebraic equations using appropriate units for physical quantities Solve simple algebraic equations Understand the terms mean, mode and median	*HT3 & HT4 (with elements of HT1 & HT2)* *Mock exam HT3* *All topics Y9-11*	*Overarching unit intent (KSU):* *Structured revisiting of GCSE content*	*HT1 – HT6 KSU* *GCSE exams*
		Term 1 core KSU re-visit *Which KSU will be revisited?* *Following Mock Exam HT2*		*Term 2 core KSU* *Re-visit* *Following HT3 Mock exam*	