Curriculum Rationale and Overview

Subject: Biology **Year group: 9**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
National Curriculum context	Chemistry and physics taught in this term	The hierarchical organisation of multicellular organisms: from cells to tissues to organs to systems to organisms	Chemistry and physics taught in this term	A simple model of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and Franklin in the development of the DNA model ♣ differences between species	The effects of recreational drugs (including substance misuse) on behaviour, health and life processes.	Chemistry and physics taught in this term
Scheme of Learning Title:		Cells and Transport: Cells		Generics: Reproduction	GCSE content: Infection and response	
Content *What will students know?*		How the body reacts to increased demands for energy during exercise How animals and plants are organised to transport substances around the body		That most characteristics are influenced by both the environment and their genetics. How evolution of bacteria has led to a better understanding of evolution.	The different types of pathogen and the impact that these can have on an animal or a plant.	
What will students understand?		Students will understand how substances are transported around the body/plant and why these substances are needed		Why both genetics and the environment impact an individual. How scientists research and use models to change theories over time.	How diseases can spread between individuals or groups, how to prevent the spread and the challenges faced by medical professionals to tackle the spread.	

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What will students be able to do?		Identify how a substance is transported and where it is likely to go. Make connections between organ systems and functions		Use sampling techniques to look at how the environment and genetics influence an organism. Suggest how humans are impacting the biodiversity of an area.	Identify primary and secondary immune response from data. Identify a pathogen or an illness based on characteristics	
How will they be formally assessed?		End of topic assessments and end of term assessments to include: Describe how to change the rate of substances moving into and out of the cell.		End of topic assessments and end of term assessments to include: Describe using specific examples such as the Dodo why some organisms become extinct. Explain how human activities can upset the fine balance of ecosystems. Describe the water cycle.	End of topic assessments and end of term assessments	