Curriculum Rationale and Overview

Subject: Biology **Year group: 7**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
National Curriculum context	Chemistry and Physics content taught in this term	Cells are the fundamental unit of living organisms. Structure and functions of cells.	Biomechanics – the interaction between the skeleton and muscles including the measurement of force. The mechanism of breathing and the impact of exercise. The role of the stomata in gas exchange.	Chemistry and Physics content taught in this term (body system may continue into this term)	Chemistry and Physics content taught in this term	Reproduction in humans The menstrual cycle, gametes and pregnancy Reproduction in plants to include pollen and seed dispersal and fruit production.
Scheme of Learning Title:		Cells and Transport: Cells	Organs and Systems: Body Systems			Organs and Systems: Reproduction
Content *What will students know?*		How to use a microscope to observe cells. The structure and function of plant and animal cells Structural adaptations of specialised cells. Roles and processes of diffusion.	How organ systems are organised in a plant and an animal. Structural adaptations of gas exchange surfaces Structure and function of the skeletal system.			Human fertilisation and implantation. Structure and function of the male and female reproductive organs. Plant pollination and fertilisation.

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What will students understand?		That the model of the cell has changed over time based on a development in technology. Cells are composed of internal structures (organelles) Cells have different structures based on their function	That cells are organised into tissues and then into organ systems. That oxygen and carbon dioxide need to be exchanged for an organism to survive. How the structure of the skeletal system allows us to move			
What will students be able to do?		Prepare a slide to observe cells under a microscope. Explain why diffusion is needed based on the type of cells Explain the process of diffusion using a model.	Plot a simple bar chart Use appropriate SI units Explain how antagonistic muscles produce movement.			How puberty and adolescence are different. Describe the hormones that influence puberty Describe the organs involved in both human and plant reproductive system
How will they be formally assessed?		End of topic and term tests to include: Describe the differences between a prokaryote and an eukaryote cell. Describe how substances move into and out of the cell	End of topic and term tests to include: Describe the structure and function of the digestive Know how cells form tissues and how tissues form organs.			End of topic and term tests to include: The roles of different organs in the reproductive system in both plants and animals Describe how the human body changes in puberty