De La Salle School Science Curriculum Year 7

Year 7 Term 1	Year 7 Term 2	Year 7 Term 3
Students begin Year 7 learning about the basic procedures and equipment used safely in a science lab. This term focuses on microscopy, cell structure and how to plan a method, variables, and analyse scientific findings. Students also focus on the particle model of matter and how matter behaves. Students are supported to make links with prior learning and build on prior knowledge. They are also introduced to science specific questioning and language. Consolidation and therapy of knowledge take place once a fortnight to embed essential knowledge and address any misconceptions.	During this term students develop their understanding of motion; learning how to calculate and investigate speed., how forces interact and how to interpret and draw resultant force diagrams. There is a further focus on investigative skills when developing understanding of how forces affect speed on a moving object and how friction affects objects. Students also investigate elasticity and how force affects the extension of a spring. We continue our focus on science specific questioning and language. Consolidation and therapy of knowledge take place once a fortnight to embed essential knowledge and address any misconceptions.	During this term students learn about the different energy stores, conservation of energy and heat transfer. Students also learn about the behaviour and properties of sound and light. We complete the term by delving into the solar system and space physics. We continue our focus on science specific questioning and language. Consolidation and therapy of knowledge take place once a fortnight to embed essential knowledge and address any misconceptions.
Knowledge, Skills and Understanding		
Module 1: Cells and organisation • Practical skills for lab work • Microscopy • Cells • Diffusion • Investigating factors which affect diffusion • Specialised cells • Multicellular and unicellular **Module 2: The particulate nature of matter** • Introduction to the particle model • Properties of solids liquids and gases • Density and how to investigate and calculate it • Changes of state • Using a Bunsen burner safely • Internal energy • Brownian motion • Gas pressure • Pure substances v mixtures	**Module 3: Motion and forces** • Motion • Speed • Types of forces • Resultant forces • Balanced and unbalanced forces • Friction • Forces associated with deforming objects • Work done **Module 4: Heredity and the history of life on Earth** • Structure of DNA • How the DNA structure was discovered • Variation • Competition • Natural selection • Gene banks • Reproduction • Gestation	**Module 4 continued** **Module 5: Energy and waves** • Energy stores • Conservation of energy • Heat transfer • Sound • Auditory range and structure of the ear • Echoes and ultrasound. • Light waves • The behaviour of light waves • Refraction • Lenses • Gravity • Our solar system • Seasons and day/night

• Separating techniques • Investigating chromatography	• Birth • Puberty	
Assessment and Assessment Focus		
Key knowledge questions End of module assessments Feedback on investigation methods Euglena project Show me boards Regular questioning to check progress	Key knowledge questions End of module assessments Feedback on investigation methods Show me boards Regular questioning to check progress	Key knowledge questions End of module assessments Feedback on investigation methods Show me boards Regular questioning to check progress