Year 7 Science - Curriculum Overview and KS3 Progress Descriptors

Aims and Rationale

Students will learn about the foundational aspects of science in Y7, which builds on their knowledge of science from KS2. In Y7 this includes study of living cells, the particle model of matter, and the fundamentals of forces and electricity. For each of their Biology, Chemistry and Physics topics, they will also develop a range of experimental skills by undertaking a collection of practical activities throughout the year, which complement the theoretical content. Pupils will also have a checklist for each topic below in their exercise books. The assigned descriptor is a balanced viewpoint of both content understood and practical skills demonstrated.

Curriculum Content		
Biology ● Cells ● Reproduction ● Food & Digestion ● Microbes	**Chemistry** ● Acids & Bases ● Particle Model ● Mixtures & Separating	**Physics** ● Forces ● Electricity ● Space

How we assess at Key Stage 3

At Hitchin Girls' School our curriculum is our progress model. Students benefit from a broad, diverse and challenging curriculum which increases in difficulty and challenge as students progress through the school. The expectation is that all students meet our curriculum at their relevant age range and as such meet the minimum of the secure descriptors below. Those working at an advancing level are working above, while those excelling are consistently working at a level far above their age range.

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	Developing	*Secure*	*Advancing*	*Excelling*
Curriculum Content & Working Scientifically	• I am starting to remember some of the key content explored in the Y7 curriculum. • I am starting to be able to describe some scientific ideas such as the structure of cells, that all things are made of particles, or that a force is a push or a pull. I am not always able to use my understanding to explain their observations. • I can usually follow instructions to carry out a scientific experiment but may need guidance and reminders to conduct it correctly and safely. I am beginning to write down observations, but I am not always able to correctly draw a table or graph from data.	• I can remember some of the key content explored in the Y7 curriculum. I can describe some scientific ideas using the correct scientific vocabulary but my explanations are at times incomplete. • I can follow instructions to carry out a scientific experiment correctly and safely, but may not yet be able to identify variables or say whether the experiment is valid. I can write down observations and am likely to be able to correctly draw a table or graph from data.	• I am able to remember the majority of the key content explored in the Y7 curriculum. I can both describe and explain most of the ideas covered at a KS3 level using key scientific vocabulary, and can communicate my understanding competently. • I can not only follow instructions to carry out a scientific experiment safely and correctly, but am able to plan investigations, identify variables and obtain accurate data. I can draw appropriate graphs with the correct scale and draw lines of best fit. I am likely to be able to spot patterns in their data.	• I am able to remember the vast majority of the key content explored in the Y7 curriculum with only the odd mistake. • I can not only follow instructions to carry out a scientific experiment safely and correctly, but am able to plan investigations, identify variables and obtain accurate data. I can draw appropriate graphs with the correct scale and draw lines of best fit. • I am able to spot patterns in their data, and am likely to be able to identify limitations and drawbacks with experiments, and evaluate them effectively. • I have demonstrated that I have extended my knowledge of the topics independently.