Subject: Science Overview

	Progress objective 1 Develop scientific knowledge and understanding.	Progress objective 2 Develop understanding of the processes and methods through scientific enquiry.	Progress objective 3 Understand the implications of science by drawing on evidence and through evaluation.
Pathway 1	Explain scientific processes and phenomena using relevant and specific detail with accurate spelling and grammar in a sustained way. Evaluate benefits and risks of scientific developments in different economic, social or cultural contexts, and how these decisions may be influenced by different people. Consistently use a range of appropriate scientific and mathematical conventions to communicate ideas, using correct units for a range of measurements.	Independently identify appropriate formats for presenting quantitative and qualitative scientific data that is appropriate to the purpose of the communication, and justify their choice. Explain scientific processes and phenomena using abstract ideas and models; make secure connections between abstract ideas and/or models. Formulate questions on their own to carry out investigations including being able to recognise all significant variables (including dependent, independent and control), explain why particular pieces of equipment are appropriate, collect repeated readings at suitable ranges and intervals and produce risk assessments that consult appropriate resources.	Interpret data in a variety of formats and provide detailed, accurate explanations for inconsistencies. Draw valid conclusions that utilise more than one piece of relevant evidence, explaining them using scientific knowledge and evaluate the quality of their data by identifying strengths and limitations, considering any alternative conclusions that could be made.
Pathway 2	Explain scientific processes and phenomena using relevant and specific detail with accurate spelling and grammar. Describe arguments for and against the use of scientific developments in different economic, social or cultural contexts, and how these decisions may be influenced. Use a range of appropriate scientific and mathematical conventions to communicate ideas.	Consistently choose appropriate formats for presenting quantitative and qualitative scientific data that is appropriate to the purpose of the communication. Explain scientific processes and phenomena using abstract ideas and models, make simple connections between abstract ideas and/or models. Formulate questions to carry out investigations including being able to recognise all significant variables (including dependent, independent and control), explain why particular pieces of equipment are appropriate, collect repeated readings at suitable ranges and intervals and produce risk assessments that consult appropriate resources.	Interpret data in a variety of formats and provide accurate explanations for inconsistencies in a sustained way. Draw valid conclusions that utilise more than one piece of relevant evidence, explaining them using scientific knowledge and evaluate the quality of their data.
Pathway 3	Describe scientific processes and phenomena using some specific detail with accurate spelling and grammar Describe different viewpoints a range of people may have about scientific developments and identify ethical and moral issues. Use some scientific and mathematical conventions to communicate ideas.	Decide on appropriate formats for presenting scientific data. Describe scientific processes and phenomena using abstract ideas and models. Plan and carry out investigations including being able to recognise significant variables, describe why particular pieces of equipment are appropriate, collect repeated readings at suitable ranges and intervals and suggest how to control obvious risks during a range of practical situations.	Interpret data in a variety of formats and provide straightforward explanations for inconsistencies. Draw valid conclusions that utilise more than on piece of evidence and evaluate the effectiveness of their methods.