



Christ's College Guildford



SUBJECT: Science Year 9 Pathways

Year 9	2-3 Pathway	4-6 Pathway	7-9 Pathway
Greater Depth (GDS)	<p>Explain processes and suggest solutions to problems by using Scientific models. Indicate how scientific or technological developments may affect groups of people</p> <p>Explain why people working together can lead to improved collection of evidence</p> <p>Repeat sets of observations or measurements selecting suitable ranges.</p> <p>Use results to see how good a method was and suggest improvements</p>	<p>Explain how processes are accepted or rejected in science .</p> <p>Point out economic, ethical and social arguments for and against science and scientific endeavours.</p> <p>Explain how information can be altered or presented in a way that makes it biased. Identify key variables in practicals, saying which ones cannot be controlled and the effect of this. Identify relationships between variables and can use this to draw conclusions and make predictions.</p>	<p>Pupils recognise that different approaches are required to investigate different kinds of scientific questions, and use scientific knowledge and understanding to select appropriate strategies. They readily identify hazards, seek appropriate risk assessment information and advice, select that which is relevant and, in consultation with their teacher, adjust practice as required. They make records of relevant observations and comparisons, clearly identifying points of particular significance. They decide the level of precision needed for measurements and collect data that satisfy these requirements. They analyse findings to interpret trends and patterns and draw conclusions from their evidence. They make effective use of a range of quantitative relationships between variables in calculations or when using data to support evidence. They communicate findings and arguments, showing their awareness of the degree of uncertainty and a range of alternative views. They evaluate evidence critically and give reasoned accounts of how they could collect additional evidence.</p>
Expected Standard	Describe how scientists share their	Explain processes and suggest solutions to	Analyse the development of scientific theories



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(EXS)	<p>ideas about evidence. Explain how scientific developments have led scientists to ask and answer new questions. Decide whether it is better to show information in a qualitative or quantitative way. Plan practicals and identify variables which are dependant and independent. Suggest scientific reasons for anomalies or why data has certain limitations.</p>	<p>problems by using scientific models.</p> <p>Incorporating the correct vocabulary of keywords. Indicate how scientific or technological developments may affect groups of people. Explain why people working together can lead to improved collection of evidence. Repeat sets of observations or measurements selecting suitable ranges and making use of the correct scientific notation. Use results to see how good a method was and suggest improvements using appropriate apparatus and measurement criteria.</p>	<p>through new accepted ideas and evidence. Describe ways that the values of society influence the very nature of science. Evaluate evidence from different sources to create well structured explanations. Justify choice of strategy to investigate different scientific questions. Propose carefully considered scientific explanations for unexpected observations.</p>
Working Towards (WTS)	<p>Understand how scientists use ideas and evidence to develop or suggest new theories.</p> <p>Identify uses of different scientific ideas in different jobs Use correct scientific language to communicate ideas.</p> <p>Take measurements or make observations during a practical and identify potential risks.</p> <p>Draw conclusions from data presented in different ways.</p>	<p>Explain processes and suggest solutions to problems by using Scientific models. Indicate how scientific or technological developments may affect groups of people. Explain why people working together can lead to improved collection of evidence. Repeat sets of observations or measurements selecting suitable ranges. Use results to see how good a method was and suggest improvements.</p>	<p>Explain how processes are accepted or rejected in science .Point out economic, ethical and social arguments for and against science and scientific endeavours. Explain how information can be altered or presented in a way that makes it biased Identify key variables in practicals, saying which ones cannot be controlled and the effect of this. Identify relationships between variables and can use this to draw conclusions and make predictions.</p>