

Science: KS3 Level Descriptors at St Mary's

Level	When thinking scientifically students:	When understanding the applications and implications of science students:	When communicating in science students:	When using investigative approaches students:	When working critically with evidence students:
1	Can label simple models to show situations.	Understand science is used in the world.	Know keywords for each module.	Can follow simple instructions.	State a trend in data.
2	Draw models to show situations.	Can name some uses of science	Know the meaning of the keywords.	Can work safely and independently.	Give a basic conclusion.
3	Use simple models to show situations.	Point out areas of our everyday lives that involve science.	Use scientific words to explain ideas.	Select the right equipment for a practical.	Suggest ways to improve a practical.
4	Understand how scientists use ideas and evidence to develop or suggest new theories.	Identify uses of different scientific ideas in different jobs.	Use more complex scientific words to explain ideas.	Take readings during a practical and identify potential risks.	Draw conclusions from data presented in different ways.
5	Explain processes and suggest solutions by using scientific models.	Indicate how scientific developments have led scientists to ask and answer new questions.	Decide to show information in a quantitative or qualitative way	Repeat sets of observations or measurements selecting suitable ranges.	Use results to see how good a method was and suggest improvements.
6	Describe how scientists share their ideas about evidence.	Explain how scientific developments have led scientists to ask and answer new questions.	Explain how information can be altered or presented in a way that makes it biased.	Plan practicals and identify variables which are dependant and independent.	Suggest scientific reasons for anomalies or why data has certain limitations.
7	Explain how processes are accepted or rejected in science.	Point out economic, ethical and social arguments for and against science.	Explain how information can be altered or presented to make 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.
8	Analyse the development of scientific theories through new accepted ideas and evidence.	Describe ways that the values of society influence the very nature of science.	Evaluate evidence from sources to create well-structured explanations	Justify choice of strategy to investigate different scientific questions.	Propose carefully considered scientific explanations for unexpected observations.
9	Critically analyse the development of scientific theories.	Critically evaluate the impact values have on science research and funding.	Critically evaluate evidence from sources to create well-structured explanations	Use secondary sources to validate or dismiss gathered data.	Propose detailed scientific explanations using a range of sources to back it up.