Mathematical skills expected of students studying the Integrated Science General course

The General Integrated Science course requires students to use the mathematical skills they have developed through the Year 7–10 Mathematics curriculum, in addition to the numeracy skills they have developed through the Science Inquiry Skills strand of the Year 7–10 Science curriculum.

Within the Science Inquiry Skills strand, students are required to gather, represent and analyse numerical data to identify the evidence that forms the basis of scientific arguments, claims or conclusions. In gathering and recording numerical data, students are required to make measurements using appropriate units to an appropriate degree of accuracy.

It is assumed that students will be able to competently:

Mathematical Skill	Example from the GIS course
o perform calculations involving addition, subtraction, multiplication and division of quantities	
o perform approximate evaluations of numerical expressions	
o express fractions as percentages, and percentages as fractions	
o calculate percentages	
o recognise and use ratios	
o transform decimal notation to power of ten notation	

Mathematical Skill	Example from the GIS course
o comprehend and use the symbols/notations <, >, Δ, ≈	
o translate information between graphical, numerical and algebraic forms.	
o distinguish between discrete and continuous data and then select appropriate forms, variables and scales for constructing graphs.	
o construct and interpret frequency tables and diagrams, pie charts and histograms .	
o describe and compare data sets using mean, median and range. Calculate the mean of data.	
o interpret the slope of a linear graph. Directly proportional Indirectly proportional	