

Level	General Descriptors - Criterion B: Inquiring and Designing Grades 7-8 / MYP Years 2-3
7 - 8	<ul style="list-style-type: none"> i. describe a problem or question to be tested by a scientific investigation ii. outline and explain a testable hypothesis using correct scientific reasoning iii. describe how to manipulate the [independent and dependent] variables, and describe how sufficient, relevant data will be collected iv. design a logical, complete and safe method in which he or she selects appropriate materials and equipment.
5 - 6	<ul style="list-style-type: none"> i. outline a problem or question to be tested by a scientific investigation ii. outline and explain a testable hypothesis using scientific reasoning iii. outline how to manipulate the [independent and dependent] variables, and outline how sufficient, relevant data will be collected iv. design a complete and safe method in which he or she selects appropriate materials and equipment.
3 - 4	<ul style="list-style-type: none"> i. state a problem or question to be tested by a scientific investigation ii. outline a testable hypothesis using scientific reasoning iii. outline how to manipulate the [independent and dependent] variables, and state how relevant data will be collected iv. design a safe method in which he or she selects materials and equipment.
1 - 2	<ul style="list-style-type: none"> i. state a problem or question to be tested by a scientific investigation, with limited success ii. state a testable hypothesis iii. state the [independent and dependent] variables iv. design a method, with limited success.
0	The student does not reach a standard identified by any of the descriptors above.

Term	<u>MYP definition on top</u> <u>Our definition underneath</u>
Data	<p><u>MYP definition:</u> Measurement of a parameter that can be quantitative (volume, temperature, pH and so on) or qualitative (colour, shape, texture and so on)</p> <p><u>Our definition:</u> Numbers or descriptions from observations during an experiment.</p>
Dependent variable	<p><u>MYP definition:</u> The variable in which values are measured in the experiment</p> <p><u>Our definition:</u> The variable that YOU change during an experiment.</p>
Describe	<p><u>MYP definition:</u> Give a detailed account or picture of a situation, event, pattern or process.</p> <p><u>Our definition:</u> Tell how something happened (i.e. “first this, then that, then the next thing”). In experiments, identify the minimum and maximum values of data in experimental results and recount the overall trends between variables.</p>
Design	<p><u>MYP definition:</u> Produce a plan, simulation or model.</p> <p><u>Our definition:</u> Use the design cycle to create something original. Include simple, detailed, numbered steps, so that the steps can be followed in a particular order.</p>
Hypothesis	<p><u>MYP definition:</u> A tentative explanation for an observation or phenomenon that requires experimental confirmation; can take the form of a question or a statement</p> <p><u>Our definition:</u> Predict how the dependent variable will respond when you change the independent variable</p>
Independent variable	<p><u>MYP definition:</u> The variable that is selected and manipulated by the investigator in an experiment</p> <p><u>Our definition:</u> The variable YOU change during an experiment</p>
Outline	<p><u>MYP definition:</u> Give a brief account.</p> <p><u>Our definition:</u> Briefly describe the major points or concepts.</p>
Qualitative data	<p><u>MYP definition:</u> Refers to non-numerical data or information that is difficult to measure in a numerical way</p> <p><u>Our definition:</u> Descriptions of observations during an experiment, which do not require numbers</p>
Quantitative data	<p><u>MYP definition:</u> Refers to numerical measurements of the variables associated with the investigation</p> <p><u>Our definition:</u> Numerical measurements of observations during an experiment</p>
Select	<p><u>MYP definition:</u> Choose from a list or group.</p> <p><u>Our definition:</u> Choose one or more things from a list or group.</p>
State	<p><u>MYP definition:</u> Give a specific name, value or other brief answer without explanation or calculation.</p> <p><u>Our definition:</u> Give a one- or two-word answer. Nothing else is needed.</p>