

Sciences - Year One

AL	Sciences - Criterion A: Knowing & Understanding
0	The student does not reach a standard described by any of the descriptors below.
1 - 2	<p>i. select scientific knowledge</p> <p>ii. select scientific knowledge and understanding to suggest solutions to problems set in familiar situations</p> <p>iii. apply information to make judgments, with limited success.</p>
3 - 4	<p>i. recall scientific knowledge</p> <p>ii. apply scientific knowledge and understanding to suggest solutions to problems set in familiar situations</p> <p>iii. apply information to make judgments.</p>
5 - 6	<p>i. state scientific knowledge</p> <p>ii. apply scientific knowledge and understanding to solve solutions to problems set in familiar situations</p> <p>iii. apply information to make scientifically supported judgments.</p>
7 - 8	<p>i. outline scientific knowledge</p> <p>ii. apply scientific knowledge and understanding to solve solutions to problems set in familiar situations and suggest solutions to problems set in unfamiliar situations</p> <p>iii. interpret information to make scientifically supported judgments.</p>

AL	Sciences - Criterion B: Inquiring and Designing
0	The student does not reach a standard described by any of the descriptors below.
1 - 2	<p>i. select a problem or question to be tested by a scientific investigation</p> <p>ii. select a testable prediction</p> <p>iii. state a variable</p> <p>iv. design a method with limited success.</p>
3 - 4	<p>i. state a problem or question to be tested by a scientific investigation</p> <p>ii. state a testable prediction</p> <p>iii. state how to manipulate the variables, and</p> <p>iv. state how data will be collected</p> <p>iv. design a safe method in which he or she selects materials and equipment.</p>
5 - 6	<p>i. state a problem or question to be tested by a scientific investigation</p> <p>ii. outline a testable prediction</p> <p>iii. outline how to manipulate the variables, and</p> <p>iv. state how relevant data will be collected</p> <p>iv. design a complete and safe method in which he or she selects appropriate materials and equipment.</p>
7 - 8	<p>i. outline a problem or question to be tested by a scientific investigation</p> <p>ii. outline a testable prediction using scientific reasoning</p> <p>iii. outline how to manipulate the variables, and</p> <p>iv. outline how sufficient, relevant data will be collected</p> <p>iv. design a logical, complete and safe method in which he or she selects appropriate materials and equipment.</p>

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AL	Sciences - Criterion C: Processing and Evaluating
0	The student does not reach a standard described by any of the descriptors below.
1 - 2	<p>i. collect and present data in numerical and/or visual forms</p> <p>ii. interpret data</p> <p>iii. state the validity of a prediction based on the outcome of a scientific investigation, with limited success</p> <p>iv. state the validity of the method based on the outcome of a scientific investigation, with limited success</p> <p>v. state improvements or extensions to the method that would benefit the scientific investigation, with limited success.</p>
3 - 4	<p>i. correctly collect and present data in numerical and/or visual forms</p> <p>ii. accurately interpret data and outline results</p> <p>iii. state the validity of a prediction based on the outcome of a scientific investigation</p> <p>iv. state the validity of the method based on the outcome of a scientific investigation</p> <p>v. state improvements or extensions to the method that would benefit the scientific investigation.</p>
5 - 6	<p>i. correctly collect, organize and present data in numerical and/or visual forms</p> <p>ii. accurately interpret data and outline results using scientific reasoning</p> <p>iii. outline the validity of a prediction based on the outcome of a scientific investigation</p> <p>iv. outline the validity of the method based on the outcome of a scientific investigation</p> <p>v. outline improvements or extensions to the method that would benefit the scientific investigation.</p>
7 - 8	<p>i. correctly collect, organize, transform and present data in numerical and/or visual forms</p> <p>ii. accurately interpret data and outline results using correct scientific reasoning</p> <p>iii. discuss the validity of a prediction based on the outcome of a scientific investigation</p> <p>iv. discuss the validity of the method based on the outcome of a scientific investigation</p> <p>v. describe improvements or extensions to the method that would benefit the scientific investigation.</p>

AL	Sciences - Criterion D: Reflecting on the Impacts of Science
0	The student does not reach a standard described by any of the descriptors below.
1 - 2	<p>i. state the ways in which science is used to address a specific problem or issue</p> <p>ii. state the implications of using science to solve a specific problem or issue, interacting with a factor</p> <p>iii. apply scientific language to communicate understanding</p> <p>iv. document sources.</p>
3 - 4	<p>i. state the ways in which science is used to address a specific problem or issue</p> <p>ii. state the implications of using science to solve a specific problem or issue, interacting with a factor</p> <p>iii. sometimes apply scientific language to communicate understanding</p> <p>iv. sometimes document sources.</p>
5 - 6	<p>i. outline the ways in which science is used to address a specific problem or issue</p> <p>ii. outline the implications of using science to solve a specific problem or issue, interacting with a factor</p> <p>iii. usually apply scientific language to communicate understanding clearly and precisely</p> <p>iv. usually document sources.</p>
7 - 8	<p>i. summarize the ways in which science is used to address a specific problem or issue</p> <p>ii. describe and summarize the implications of using science and its application to solve a specific problem or issue, interacting with a factor</p> <p>iii. consistently apply scientific language to communicate understanding clearly and precisely</p> <p>iv. document sources completely.</p>