

Sciences Year Three (Years 2 and 3)

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. 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>
3 - 4	<p>i. state scientific knowledge</p> <p>ii. apply scientific knowledge and understanding to solve problem set in familiar situations</p> <p>iii. apply information to make scientifically supported judgments.</p>
5 - 6	<p>i. outline scientific knowledge</p> <p>ii. apply scientific knowledge and understanding to solve 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>
7 - 8	<p>i. describe scientific knowledge</p> <p>ii. apply scientific knowledge and understanding to solve problems set in familiar situations and unfamiliar situations</p> <p>iii. analyze 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. state a problem or question to be tested by a scientific investigation, with limited success</p> <p>ii. state a testable hypothesis</p> <p>iii. state the variables</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. outline a testable hypothesis using scientific reasoning</p> <p>iii. outline how to manipulate the variables, and state how relevant 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. outline a problem or question to be tested by a scientific investigation</p> <p>ii. outline and explain a testable hypothesis using scientific reasoning</p> <p>iii. outline how to manipulate the variables, and outline how sufficient 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. describe a problem or question to be tested by a scientific investigation</p> <p>ii. outline and explain a testable prediction using correct scientific reasoning</p> <p>iii. describe how to manipulate the variables, and describe 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>

Sciences Year Three (Years 2 and 3)

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. accurately interpret data</p> <p>iii. state the validity of a hypothesis with limited reference to a scientific investigation</p> <p>iv. state the validity of the method with limited reference to a scientific investigation</p> <p>v. state limited improvements or extensions to the method.</p>
3 - 4	<p>i. correctly collect and present data in numerical and/or visual forms</p> <p>ii. accurately interpret data and describe results</p> <p>iii. state the validity of a hypothesis 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 describe results using scientific reasoning</p> <p>iii. outline the validity of a hypothesis 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 describe results using correct scientific reasoning</p> <p>iii. discuss the validity of a hypothesis 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 the use of science to solve a specific problem or issue, interacting with a factor</p> <p>iii. apply scientific language to communicate understanding but does so with limited success</p> <p>iv. document sources, with limited success.</p>
3 - 4	<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. sometimes apply scientific language to communicate understanding</p> <p>iv. sometimes document sources correctly.</p>
5 - 6	<p>i. summarize the ways in which science is applied and used to address a specific problem or issue</p> <p>ii. describe the implications of using science and its application 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 correctly.</p>
7 - 8	<p>i. describe the ways in which science is applied and used to address a specific problem or issue</p> <p>ii. discuss and analyze 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>