

## Sciences - Year One (MYP Year 1 and 1<sup>st</sup> Semester of Year 2)

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. <b>select</b> scientific knowledge</p> <p>ii. <b>select</b> scientific knowledge and understanding to <b>suggest solutions</b> to problems set in <b>familiar situations</b></p> <p>iii. <b>apply</b> information to <b>make judgments, with limited success.</b></p>
3 - 4	<p>i. <b>recall</b> scientific knowledge</p> <p>ii. <b>apply</b> scientific knowledge and understanding to <b>suggest solutions</b> to problems set in <b>familiar situations</b></p> <p>iii. <b>apply</b> information to <b>make judgments.</b></p>
5 - 6	<p>i. <b>state</b> scientific knowledge</p> <p>ii. <b>apply</b> scientific knowledge and understanding to <b>solve solutions</b> to problems set in <b>familiar situations</b></p> <p>iii. <b>apply</b> information to <b>make scientifically supported judgments.</b></p>
7 - 8	<p>i. <b>outline</b> scientific knowledge</p> <p>ii. <b>apply</b> scientific knowledge and understanding to <b>solve solutions</b> to problems set in <b>familiar situations</b> and <b>suggest solutions</b> to problems set in <b>unfamiliar situations</b></p> <p>iii. <b>interpret</b> information to <b>make scientifically supported judgments.</b></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. <b>select</b> a problem or question to be tested by a scientific investigation</p> <p>ii. <b>select</b> a testable prediction</p> <p>iii. <b>state</b> a variable</p> <p>iv. design a <b>method with limited success.</b></p>
3 - 4	<p>i. <b>state</b> a problem or question to be tested by a scientific investigation</p> <p>ii. <b>state</b> a testable prediction</p> <p>iii. <b>state</b> how to manipulate the variables, and</p> <p>iv. <b>state</b> how <b>data will be collected</b></p> <p>iv. design a <b>safe method</b> in which he or she <b>selects materials and equipment.</b></p>
5 - 6	<p>i. <b>state</b> a problem or question to be tested by a scientific investigation</p> <p>ii. <b>outline</b> a testable prediction</p> <p>iii. <b>outline</b> how to manipulate the variables, and</p> <p>iv. <b>state</b> how <b>relevant data will be collected</b></p> <p>iv. design a <b>complete and safe method</b> in which he or she <b>selects appropriate materials and equipment.</b></p>
7 - 8	<p>i. <b>outline</b> a problem or question to be tested by a scientific investigation</p> <p>ii. <b>outline</b> a testable prediction <b>using scientific reasoning</b></p> <p>iii. <b>outline</b> how to manipulate the variables, and</p> <p>iv. <b>outline</b> how <b>sufficient, relevant data will be collected</b></p> <p>iv. design a <b>logical, complete and safe method</b> in which he or she <b>selects appropriate materials and equipment.</b></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><b>i. collect and present</b> data in numerical and/or visual forms</p> <p><b>ii. interpret</b> data</p> <p><b>iii. state</b> the validity of a prediction based on the outcome of a scientific investigation, <b>with limited success</b></p> <p><b>iv. state</b> the validity of the method based on the outcome of a scientific investigation, <b>with limited success</b></p> <p><b>v. state</b> improvements or extensions to the method that would benefit the scientific investigation, <b>with limited success.</b></p>
3 - 4	<p><b>i. correctly collect and present</b> data in numerical and/or visual forms</p> <p><b>ii. accurately interpret</b> data and <b>outline</b> results</p> <p><b>iii. state</b> the validity of a prediction based on the outcome of a scientific investigation</p> <p><b>iv. state</b> the validity of the method based on the outcome of a scientific investigation</p> <p><b>v. state</b> improvements or extensions to the method that would benefit the scientific investigation.</p>
5 - 6	<p><b>i. correctly collect, organize and present</b> data in numerical and/or visual forms</p> <p><b>ii. accurately interpret</b> data and <b>outline</b> results <b>using scientific reasoning</b></p> <p><b>iii. outline</b> the validity of a prediction based on the outcome of a scientific investigation</p> <p><b>iv. outline</b> the validity of the method based on the outcome of a scientific investigation</p> <p><b>v. outline</b> improvements or extensions to the method that would benefit the scientific investigation.</p>
7 - 8	<p><b>i. correctly collect, organize, transform and present</b> data in numerical and/or visual forms</p> <p><b>ii. accurately interpret</b> data and <b>outline</b> results <b>using correct scientific reasoning</b></p> <p><b>iii. discuss</b> the validity of a prediction based on the outcome of a scientific investigation</p> <p><b>iv. discuss</b> the validity of the method based on the outcome of a scientific investigation</p> <p><b>v. describe</b> 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><b>i. state</b> the ways in which science is used to address a specific problem or issue</p> <p><b>ii. state</b> the implications of using science to solve a specific problem or issue, interacting with a factor</p> <p><b>iii. apply</b> scientific language to communicate understanding</p> <p><b>iv. document</b> sources.</p>
3 - 4	<p><b>i. state</b> the ways in which science is used to address a specific problem or issue</p> <p><b>ii. state</b> the implications of using science to solve a specific problem or issue, interacting with a factor</p> <p><b>iii. sometimes apply</b> scientific language to communicate understanding</p> <p><b>iv. sometimes</b> document sources.</p>
5 - 6	<p><b>i. outline</b> the ways in which science is used to address a specific problem or issue</p> <p><b>ii. outline</b> the implications of using science to solve a specific problem or issue, interacting with a factor</p> <p><b>iii. usually apply</b> scientific language to communicate understanding <b>clearly and precisely</b></p> <p><b>iv. usually</b> document sources.</p>
7 - 8	<p><b>i. summarize</b> the ways in which science is used to address a specific problem or issue</p> <p><b>ii. describe and summarize</b> the implications of using science and its application to solve a specific problem or issue, interacting with a factor</p> <p><b>iii. consistently apply</b> scientific language to communicate understanding <b>clearly and precisely</b></p> <p><b>iv. document</b> sources <b>completely.</b></p>