**Sciences Assessment Criteria for MYP Year 3 – *Grade 8***

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| **Criterion A: Knowledge and Understanding** | | | | |
| **(0)** | **Beginning (1-2)** | **Developing (3-4)** | **Accomplished (5-6)** | **Exemplary (7-8)** |
| *I have not achieved a standard described by any of the descriptors to the right*. | *I am able to:*  **recall** scientific knowledge  apply scientific knowledge and understanding to **suggest solutions** to problems set in **familiar situations**  **apply** information to make **judgments**. | *I am able to:*  **state** scientific knowledge  apply scientific knowledge and understanding to **solve problems** set in **familiar situations**  **apply** information to make **scientifically supported judgments**. | *I am able to:*  **outline** scientific knowledge  apply scientific knowledge and understanding to **solve problems** set in **familiar situations** and **suggest solutions** to problems set in **unfamiliar situations**  **interpret** information to make **scientifically supported judgments**. | *I am able to:*  **describe** scientific knowledge  apply scientific knowledge and understanding to **solve problems** set in **familiar and unfamiliar situations**  **analyse** information to make **scientifically supported judgments**. |
| **Criterion B: Inquiring and Designing** | | | | |
| **(0)** | **Beginning (1-2)** | **Developing (3-4)** | **Accomplished (5-6)** | **Exemplary (7-8)** |
| *I have not achieved a standard described by any of the descriptors to the right*. | *I am able to:*  **state** a problem or question to be tested by a scientific investigation, with **limited success**  **state** a testable hypothesis  **state** the variables  design **a method, with limited success**. | *I am able to:*  **state** a problem or question to be tested by a scientific investigation  **outline** a testable hypothesis **using scientific reasoning**  **outline** how to manipulate the variables, and **state** how **relevant data** will be collected  design a **safe method** in which he or she **selects materials and equipment**. | *I am able to:*  **outline** a problem or question to be tested by a scientific investigation  **outline and explain** a testable hypothesis **using scientific reasoning**  **outline** how to manipulate the variables, and **outline** how s**ufficient, relevant data** will be collected  design **a complete and safe method** in which he or she **selects appropriate materials and equipment**. | *I am able to:*  **describe** a problem or question to be tested by a scientific investigation  **outline and explain** a testable hypothesis **using correct scientific reasoning**  **describe** how to manipulate the variables, and **describe** how **sufficient, relevant** data will be collected  design a **logical, complete and safe method** in which he or she **selects appropriate materials and equipment**. |
| **Criterion C: Processing and Evaluating** | | | | |
| **(0)** | **Beginning (1-2)** | **Developing (3-4)** | **Accomplished (5-6)** | **Exemplary (7-8)** |
| *I have not achieved a standard described by any of the descriptors to the right*. | *I am able to:*  **collect and present** data in numerical and/or visual forms  **accurately interpret** data  **state** the validity of a hypothesis **with limited reference** to a scientific investigation  **state** the validity of the method **with limited reference** to a scientific investigation  **state limited** improvements or extensions to the method. | *I am able to:*  **correctly collect and present** data in numerical and/or visual forms  **accurately interpret** data and **describe** results  **state** the validity of a hypothesis based on the outcome of a scientific investigation  **state** the validity of the method based on the outcome of a scientific investigation  **state** improvements or extensions to the method that would benefit the scientific investigation. | *I am able to:*  **correctly collect, organize and present** data in numerical and/or visual forms  **accurately interpret** data and **describe** results **using scientific reasoning**  **outline** the validity of a hypothesis based on the outcome of a scientific investigation  **outline** the validity of the method based on the outcome of a scientific investigation  **outline** improvements or  extensions to the method that would benefit the scientific investigation. | *I am able to:*  **correctly collect, organize, transform and present** data in numerical and/ or visual forms  **accurately interpret data** and **describe** results **using correct scientific reasoning**  **discuss** the validity of a hypothesis based on the outcome of a scientific investigation  **discuss** the validity of the method based on the outcome of a scientific investigation  **describe** improvements or extensions to the method that would benefit the scientific investigation. |
| **Criterion D: Reflecting on the Impacts of Science** | | | | |
| **(0)** | **Beginning (1-2)** | **Developing (3-4)** | **Accomplished (5-6)** | **Exemplary (7-8)** |
| *I have not achieved a standard described by any of the descriptors to the right*. | *I am able to:*  **state** the ways in which science is used to address a specific problem or issue  **state** the implications of the use of science to solve a specific problem or issue, interacting with a factor  **apply** scientific language to communicate understanding but does so **with limited success**  document sources, **with limited success**. | *I am able to:*  **outline** the ways in which science is used to address a specific problem or issue  **outline** the implications of using science to solve a specific problem or issue, interacting with a factor  **sometimes apply** scientific language to communicate understanding  **sometimes** document sources **correctly**. | *I am able to:*  **summarize** the ways in which science is applied and used to address a specific problem or issue  **describe** the implications of using science and its application to solve a specific problem or issue, interacting with a factor  **usually apply** scientific language to communicate understanding **clearly and precisely**  **usually** document sources **correctly**. | *I am able to:*  **describe** the ways in which science is applied and used to address a specific problem or issue  **discuss and analyse** the implications of using science and its application to solve a specific problem or issue, interacting with a factor  **consistently apply** scientific language to communicate understanding **clearly and precisely**  document sources **completely**. |

*Command Terms for Sciences*

**Analyse -** Break down in order to bring out the essential elements or structure. To identify parts and relationships, and to interpret information to reach conclusions.

**Apply -** Use knowledge and understanding in response to a given situation or real circumstances

**Describe -** Give a detailed account or picture of a situation, event, pattern or process

**Design -** Produce a plan, simulation or model

**Discuss -** Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence

**Document -** Credit sources of information used by referencing (or citing), following one recognized referencing system. References should be included in the text and also at the end of the piece of work in a reference list or bibliography

**Evaluate -** Make an appraisal by weighing up the strengths and limitations

**Explain -** Give a detailed account

**Formulate -** Express precisely and systematically the relevant concept(s) or argument(s)

**Interpret -** Use knowledge and understanding to recognize trends and draw conclusions from given information

**Outline -** Give a brief account

**Present -** Offer for display, observation, examination or consideration

**Recall -** Remember or recognize from prior learning experiences

**Select -** Choose from a list or group

**Solve -** Obtain the answer(s) using appropriate methods

**State -** Give a specific name, value or other brief answer without explanation or calculation

**Suggest -** Propose a solution, hypothesis or other possible answer

**Summarize -** Abstract a general theme or major point(s)