**MYP Science Rubrics M3**



**[students must achieve lower band before moving up]**

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| **Level of Achievement** | | CRITERION A: ONE WORLD |
| **Student** | Teacher | Descriptor |
| 0 | 0 | The student has not reached a standard described by any of the descriptors given below. |
| 1 – 2 | 1 – 2 | describe and explain ways in which science is applied and used to solve local and global problems. |
| 3 – 4 | 3 – 4 | give examples of science and scientific applications and discuss some of their positive and/or negative effects on people, societies and the environment. |
| 5 – 6 | 5 – 6 | describe and explain how science and technology depend on each other for the development of knowledge and technological applications.  understand that science is part of the world they live in by describing how science and its applications are affected and/or influenced by some of the following factors: social, economic, political, environmental, cultural, ethical. |

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| **Level of Achievement** | | CRITERION B: COMMUNICATION |
| **Student** | Teacher | Descriptor |
| 0 | 0 | The student has not reached a standard described by any of the descriptors given below. |
| 1 – 2 | 1 – 2 | understand and use scientific language relevant to the units of work covered |
| 3 – 4 | 3 – 4 | provide scientific information using appropriate modes of communication oral, written, visual representation (formulae, graphs, tables, diagrams) consistent with the level of complexity of the units of work covered.  present and communicate scientific information in formats (such as laboratory reports, experimental accounts, explanations, essays, expositions, audio-visual presentations etc.) appropriate to the work covered, and acknowledge sources |
| 5 – 6 | 5 – 6 | demonstrate honesty when handling data and information, and acknowledging sources  use where appropriate information and communication technology applications (World Wide Web, data loggers, databases, spreadsheets and/or software for plotting graphs) to access, process and communicate scientific information. |

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| **Level of Achievement** | | CRITERION C: SCIENTIFIC KNOWLEDGE AND CONCEPTS |
| **Student** | Teacher | Descriptor |
| 0 | 0 | The student has not reached a standard described by any of the descriptors given below. |
| 1 – 2 | 1 – 2 | recognize and recall scientific information relevant to the units of work covered  explain and apply scientific information to solve problems in familiar and, with guidance, in unfamiliar situations |
| 3 – 4 | 3 – 4 | analyse simple scientific information by identifying basic components, relationships and patterns, both in experimental data and ideas |
| 5 – 6 | 5 – 6 | discuss scientific information from different sources (Internet, newspaper articles, television, scientific texts and publications) and comment on its credibility. |

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| **Level of Achievement** | | CRITERION D: SCIENTIFIC ENQUIRY |
| **Student** | Teacher | Descriptor |
| 0 | 0 | The student has not reached a standard described by any of the descriptors given below. |
| 1 – 2 | 1 – 2 | recognize and attempt to articulate the problem or research question to be tested by a scientific investigation  formulate a simple hypothesis and explain it using a logical reasoning and their knowledge of sciences (“If I do this, then that will happen because..”) |
| 3 – 4 | 3 – 4 | design scientific investigations that include variables and controls that are identified; identify materials/equipment needed; describe a method to be followed; suggest the data to be collected |
| 5 – 6 | 5 – 6 | comment on the method and the accuracy and/or precision of the results  suggest improvements to the method. |

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| **Level of Achievement** | | CRITERION E: PROCESSING DATA |
| **Student** | Teacher | Descriptor |
| 0 | 0 | The student has not reached a standard described by any of the descriptors given below. |
| 1 – 2 | 1 – 2 | collect and record data using appropriate units of measurement |
| 3 – 4 | 3 – 4 | organize and transform data into numerical and diagrammatic forms, including mathematical calculations and visual representation (tables, graphs and charts)  present data in a variety of ways using appropriate communication modes (oral, written and visual representation, and use of technologies) and conventions (units of measurement) |
| 5 – 6 | 5 – 6 | analyse and interpret data by identifying trends, patterns and relationships  draw conclusions supported by explanations that are consistent with the analysis of the data. |

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| **Level of Achievement** | | CRITERION F: PERFORMANCE IN EXPERIMENTS |
| **Student** | Teacher | Descriptor |
| 0 | 0 | The student has not reached a standard described by any of the descriptors given below. |
| 1 – 2 | 1 – 2 | carry out scientific investigations using materials and techniques safely and skilfully |
| 3 – 4 | 3 – 4 | work effectively as members of a team, collaborating, acknowledging and supporting others as well as ensuring a safe working environment |
| 5 – 6 | 5 – 6 | show respect for themselves and others, and deal responsibly with the living and non-living environment. |