**Climate Change in the Arctic**

**Modelling the Greenhouse Effect - Investigation Rubric**

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|  | **Level 4** | **Level 3** | **Level 2** | **Level 1** |
| **Knowledge and Understanding –** The student: | | | | |
| **Understanding of content** | demonstrates a thorough ability to predict the outcome of experiment. | demonstrates considerable ability to predict the outcome of experiment. | demonstrates some ability to predict the outcome of experiment. | demonstrates limited ability to predict the outcome of experiment. |
| **Thinking and Investigation –** The student: | | | | |
| **Use of initiating and planning skills and strategies** | prepares a complete, accurate, labelled design sketch and observation table | prepares a design sketch and observation table with one or two minor errors or omissions | prepares design sketch and observation table with some missing information and errors. | prepares design sketch and observation table with major errors and omissions. |
| **Use of processing skills and strategies** | follows experimental procedure carefully and correctly and records complete results accurately. | follows experimental procedure with few mistakes and records results mostly accurately. | follows some instructions in the experimental procedure and records results with some errors or omissions. | follows experimental procedure with guidance and records results with numerous error or omissions. |
| **Use of critical/creative thinking processes, skills, and strategies** | analyzes and interprets results to form insightful conclusions. | analyzes and interprets results to form accurate conclusions. | analyzes and interprets results to form conclusions that are related. | analyzes and interprets results to form conclusions that are unrelated or incomplete. |
| **Communication –** The student: | | | | |
| **Expression and organization of ideas and information in oral, visual, and/or written forms** | expresses and organizes ideas and information in diagrams, charts and written notes with a high degree of effectiveness. | expresses and organizes ideas and information in diagrams, charts and written notes with considerable effectiveness. | expresses and organizes ideas and information in diagrams, charts and written notes with some effectiveness. | expresses and organizes ideas and information in diagrams, charts and written notes with limited effectiveness. |
| **Use of conventions, vocabulary, and terminology of the discipline in oral, visual, and/or written forms** | uses conventions, vocabulary, and terminology with a high degree of effectiveness. | uses conventions, vocabulary, and terminology with considerable effectiveness. | uses conventions, vocabulary, and terminology with some effectiveness. | uses conventions, vocabulary, and terminology with limited effectiveness. |
| **Application –** The student: | | | | |
| **Making connections between science, technology, society, and the environment** | makes relevant connections between the results of the experiment and the environment with a high degree of effectiveness. | makes relevant connections between the results of the experiment and the environment with considerable effectiveness. | makes connections between the results of the experiment and the environment with some effectiveness. | makes connections between the results of the experiment and the environment with limited effectiveness. |