**Science 20F – Stuck in a Cycle Project**

**12 marks**

**Due Tuesday May 27**

**Instructions:** This is assignment has two options focusing on either the Nitrogen cycle or the Carbon (or Carbon-Oxygen) cycle. The purpose of this assignment is to increase your understanding of how matter is cycled throughout ecosystems. You may work alone or with a partner.

**Part One:** **Diagram/Poster (12 marks)**

Choose only one of the cycles and create your own diagram/representation. You may use your notes, a textbook, or the internet for reference and examples. The purpose is not to directly copy a diagram, but to design one that makes sense to you.

Your diagram should include pictures, arrows, labels, and brief descriptions when necessary.

**Part One Rubric**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CATEGORY | 4 | 3 | 2 | 1 |
| Required Elements | The poster includes all required elements: Pictures, labels, arrows, brief descriptions | The poster includes most of the required elements. | The poster includes some of the required elements. | Most required elements were missing. |
| Understanding | Poster shows that the student has an in depth understanding of the concept/cycle chosen. | Poster shows that the student has a good understanding of the concept/cycle chosen, however one step is missing or out of order. | Poster shows that the student has little understanding of the concept/cycle. More than one step is missing or out of order. | Student has very little understanding of the concept/cycle chosen. |
| Creativity | Several of the graphics used on the poster reflect a exceptional degree of student creativity in their creation. | Most of the graphics used on the poster reflect student creativity in their creation. | Some of the graphics reflect student creativity, however the poster lacks originality. | Little demonstration of creativity and originality. |

**Part Two: Stuck in a Cycle (15 marks)**

For this task, you will take on the role of either a molecule of nitrogen or carbon gas. You must follow the path of the molecule through its respective cycle from start to finish. Be sure to include all stages of the cycle and use correct terms when necessary.

Be creative! This can be done in the form of a story, song, poem, poster, video, etc..

**Part Two Rubric**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CATEGORY | 4 | 3 | 2 | 1 |
| Creativity | The project contains many creative details and/or descriptions that contribute to the enjoyment and understanding. | The project contains some creative details and/or descriptions that contribute to the enjoyment and understanding | The project contains a few creative details and/or descriptions. Some effort was made. | There is little evidence of creativity in the project. |
| Organization | The project is very well organized. Sequence of events is clear. | The project is pretty well organized. One or two stages are incomplete or unclear. | The project is a little hard to follow. The stages and transitions are sometimes not clear. | Ideas seem to be randomly arranged. Missing information. |
| Appropriate Terms | Appropriate terms were always used when necessary and were well incorporated in the project. | Appropriate terms were used most of the time and were incorporated in the project. | Appropriate terms are used, but inconsistently. | Little use of appropriate terms. |