

Name: \_\_\_\_\_ date: \_\_\_\_\_ blk: \_\_\_\_\_

**SCIENCE 10 MYP IB ASSIGNMENT**

**Radioactivity essay response**

**MYP Unit Question:** Do advances in technology hinder or help?

**Area of Interaction:** Human Ingenuity

**Learner Profile:** Knowledgeable

**Evaluation:**

**IB Criterion A: One World**

**IB Criterion B: Communication in Science**

Your assignment is to write an in-class essay response (700-1200 words) addressing the unit question by focusing on your choice of a type of radioactive innovation.

In your essay response you need to address the criteria in One World. You must use scientific language to explain your point of view.

Examples of Innovations:

- X-rays
- The use of isotopes as radioactive dyes in medical scanning
- Radiation therapy
- The use of the concept of half-life to determine the age of fossils
- Exploitation of nuclear fission to produce energy

The purpose of this assignment is to show your expert knowledge about radioactivity.

Your job is to educate and inform others about your chosen topic and its effects on society.

|                                 |
|---------------------------------|
| <b>Essay Response Due Date:</b> |
|---------------------------------|

**Evaluation**

1. You will be evaluated according to the two IB Rubrics on the back of this sheet.

**Criterion A: One World**

| Achievement Level | Descriptor   |
|-------------------|--|
| 5-6               | <p>The student <b>explains</b> how science is applied and how it may be used to address a specific problem or issue in a local or global context.</p> <p>The student <b>discusses</b> the effectiveness of science and its application in solving the problem or issue.</p> <p>The student <b>discusses and evaluates</b> the implications of the use and application of science interacting with <b>at least two</b> of the following factors: moral, ethical, social, economic, political, cultural and environmental.</p> |
| 3-4               | <p>The student <b>describes</b> how science is applied and how it may be used to address a specific problem or issue in a local or global context.</p> <p>The student <b>describes</b> the effectiveness of science and its application in solving the problem or issue.</p> <p>The student <b>describes</b> the implications of the use and application of science interacting with <b>at least one</b> of the following factors: moral, ethical, social, economic, political, cultural and environmental.</p>              |
| 1-2               | <p>The student <b>states</b> how science is applied and how it may be used to address a specific problem or issue in a local or global context.</p> <p>The student <b>states</b> the effectiveness of science and its application in solving the problem or issue.</p>   |
| 0                 | The student does not reach a standard described by any of the descriptors above.   |

**Criterion B: Communication in Science**

| Achievement Level | Descriptor   |
|-------------------|--|
| 5-6               | <p>The student uses <b>sufficient</b> scientific language correctly.</p> <p>The student communicates scientific information <b>effectively</b>.</p> <p>When appropriate to the task, the student <b>fully documents</b> sources of information <b>correctly</b>.</p>                               |
| 3-4               | <p>The student uses <b>some</b> scientific language correctly.</p> <p>The student communicates scientific information with <b>some effectiveness</b>.</p> <p>When appropriate to the task, the student <b>partially documents</b> sources of information.</p>                                      |
| 1-2               | <p>The student uses a <b>limited range</b> of scientific language <b>correctly</b>.</p> <p>The student communicates scientific information with <b>limited effectiveness</b>.</p> <p>When appropriate to the task, the student <b>makes little attempt</b> to document sources of information.</p> |
| 0                 | The student does not reach a standard described by any of the descriptors below.   |