**Sci 8 Element Research Project Guided Inquiry 25pt Name: \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Assigned Element: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Paragraph 1: Intro (3pt)**

* Briefly describe your element:
  + What are the **properties** of your element? *(typical state of matter, melting point, boiling point, strength, hardness, reflective qualities, conductivity, density, etc) (1-3 lines)*
* List **ONE** *man-made product or technology* that your *element* is used in that many people or (a specialist) would use regularly. ( 1-2 lines)
* How is your element obtained for this product? Where does it come from? (is it mined?) (1-3 lines)
* Extension:
  + Discuss your ***element’s*** purpose in this item/technology (why is your element needed)?
  + Discuss how the **item** is used.
  + How does this item affect you directly or at least indirectly – do you use it yourself? Family member? doctor?

**Paragraph 2: Positive Impact** (4pt)

* What are some **advantages** (list at least 1-2)of using this object or technology that contains your element? (how this item/technology helps with a task, make your/other’s life easier) (2-3 lines)
* Relate to at least one of the following factors: Social, economic, environmental. (2-3 lines)
* Extension: list at least 2-3 impacts and fully explain the material’s impact.

**Paragraph 3: Negative Impact** (4pt)

* Discuss any **disadvantages** of using the particular object/material that contains your element.
  + Disadvantages may be: how the element is obtained (mining) or how it is processed to put it into the material in question (are there harmful chemicals used? Are harmful waste products produced in the manufacturing of your material?)
* Relate to at least one of the following factors: Social, economic, environmental. The term (social/economic/environment) is included in the paragraph.
  + (Does the acquisition of your element destroy habitat? Create green house gases? Pollution water, create e-waste or toxic chemicals?) Is a certain population exploited to obtain element or make the material? What happens when the item is used/finished? Can this item be reused or recycled?
  + Extension: list at least 2-3 and fully explain the material’s impact.

**Paragraph 4: Analysis** (5pt)

* Analyze the positive and negative impacts this item/technology has on people and the environment and make a *decision* whether or not the material should continue to be used and the answer is justified based on the positive and negative impacts. **Justify your answer.** (3-4 sentences)

**CITE YOUR SOURCES** (2pt)

* Bibliography contains at least 3 sources. You can use links. Do not use Wiki, Weebly, Prezi.

**Pride Mark (2pt)**

* Well written, good sentence structure, no spelling or grammatical errors
* Organized into paragraphs, points clearly addressed
* In your own words
* Title

**ASSESSMENT RUBRIC**

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| **Criterion D: Reflecting on the Impacts of a Material** | | | | |
| **(0)** | **Beginning (1)** | **Developing (2)** | **Accomplished (3)** | **Exemplary (4)** |
| *I have not achieved a standard described to the right*. | *I am able to:*  **State the** ways in which a *material* is used to address a specific problem or issue…..  in today’s world to make our lives better……..  **state** at least ONE positive implications of the use of a *material* to solve a specific problem or issue, interacting with a factor  **and at least ONE negative implication.**  **apply** scientific language to communicate understanding but does so **with limited success**    document sources, **with limited success**. | *I am able to:*  **outline** ways in which a *material* is used to address a specific problem or issue    **outline** at least two positive and two negative implications of using a *material* 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 a *material* is applied and used to address a specific problem or issue    **describe** the implications 2-3 positive and 2-3 negative implications of using a *material* 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 a *material* is applied and used to address a specific problem or issue    **discuss and analyse** the implications of using a *material* 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**.  More than 3 sources. |

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***Command Terms for Science***

**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

**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

**Outline -** Give a brief account

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

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

* *For all your research for the following questions, make sure to add your sources to the* ***numbered bibliography*** *at the end of this document.*
* *Next to each point use a superscript to indicate which* ***numbered source*** *it comes from in your bibliography.*