

### Physics Essay Term 3

**Statement of Inquiry:** Driven by concerns over global warming and the limited nature of some energy sources, scientists and engineers are developing many new energy sources. In the last ten years, researchers have developed many interesting innovations.

**Global Context:** Scientific and Technical Innovations

**Subject Links:** Contemporary World

**Due Date:** March 29, 2019 before 15h55

**Instructions:** Write a 500-1000 word essay.

**Getting Started:** Research scientific or technological energy innovation from the last ten years. These technologies may extract energy from a multitude of sources including waves, wind, the earth-moon interaction, the sun, nuclear, and geothermal. You may also consider energy conversion innovations (e.g. creation of closed-carbon cycle fuels). Choose a recent energy technology innovation that interests you and find at least three good (educational, government, scientific, corporate) resources to support your findings. *You must get your topic approved, and only four (4) people may write on the same topic.*

**Report (refer to rubric):** Provide a response to the statement of inquiry backed by references from expert sources. The report should include an introduction (include information from your initial investigation), paragraphs explaining specific subtopics including links to the societal analysis discussed below. Explain the ways in which the science is applied and the effectiveness of its application. (Avoid listing). Make a statement and then use your research to expand on what you have discovered. Use quotes and researched facts being sure to cite the authors. **You must use in-text referencing.** Do not cut and paste as this leads to plagiarism (never acceptable).

**Scientific understanding:** Use appropriate scientific language to demonstrate a full and clear understanding of the scientific information surrounding your topic. You may include examples, diagrams, pictures, tables and graphs to demonstrate how the science impacts our global community. (Be sure to cite any pictures etc. found from sources including the internet.)

**Societal analysis and understanding:** Consider how your selected topic has had or may have an impact on society (locally and/or globally) by exploring possible social, economic, political, environmental, cultural or ethical factors that are interdependent with your chosen discovery.

**Conclusion:** Give your opinion on the current progress in the development of your technology and the impact it may have on the global community. Discuss several positive and or negative components and support your thoughts by referring to information provided in your essay. Include any questions or ideas that have arisen from your research.

**References:** Must be included and cited throughout your paper; you must use in-text referencing. Include a Reference list at the end (separate page) using ACS format.

**Self-evaluation:** Complete a self-evaluation on the rubric **BEFORE** you submit your paper.

**General:**

- Include a title page (title of your paper, your name, course number, group, and due date)
- Your paper must be printed, double-spaced, 12 point font, times new roman, in black ink.