

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Chemistry** ~ Ms. Hart

**Class:** Anions or Cations



Argumentative Essay #6: Should We Expand Nuclear Power in the U.S.?

President Obama has asked for you, a scientist with an expertise in nuclear chemistry, to advise him on whether or not the United States should expand their nuclear power usage as a source on alternative energy. You must conduct thorough research on the benefits and costs/risks of nuclear power, and conclude whether or not the U.S. should pursue nuclear power expansion. You will write a professional letter to President Obama making a compelling argument for or against nuclear power expansion. In your letter, be sure to include the following:

- An accurate description of the types of nuclear reactions: fission and fusion
- An accurate technical synopsis of how nuclear power is generated. This should include the required materials/elements used in the reaction, type of reaction, and how the reaction is used to produce power.
- At least two well-supported reasons why we should or should not expand nuclear power in the U.S. Each reason should be supported by at least three pieces of evidence.
- At least one reason why a person would argue against your position, and at least 3 pieces of evidence that you could use to refute their argument.
- Must include a minimum of 3 reputable sources listed in a Works Cited in the back of your essay. (Wikipedia is not reputable, websites should typically end in **.edu**, **.org**, or **.gov**)
- Sources must be at least 2 different types of sources, (e.g. video, interview, news article, magazine article, informational text – encyclopedia, textbook, content-specific book)

**Related Articles / Videos:**

- Fukushima video <http://www.pbs.org/wgbh/pages/frontline/japans-nuclear-meltdown/>
- Chernobyl Video <http://abcnews.go.com/Archives/video/april-26-2006-chernobyl-disaster-20-years-16423068>
- “Is Nuclear Power Good For You” Science Magazine <http://news.sciencemag.org/>
- “It’s Scary, It’s Expensive, It Could Save the Earth” National Geographic Magazine
- “Nuclear Power Plants” <http://www.ready.gov/nuclear-power-plants>
- “Nuclear Power Prevents More Deaths Than It Causes” Mark Schrope, Chemical & Engineering News <https://cen.acs.org/articles/91/web/2013/04/Nuclear-Power-Prevents-Deaths-Causes.html>
- Nuclear power: The only available solution to global warming, Physics Today <http://scitation.aip.org/content/aip/magazine/physicstoday/news/10.1063/PT.4.2433>
- **Should Fukushima's radioactive water be dumped at sea? Andy Coghlan, New Science** [http://www.newscientist.com/article/dn24100-should-fukushimas-radioactive-water-be-dumped-at-sea.html#.Uv1NH\\_ZBxOk](http://www.newscientist.com/article/dn24100-should-fukushimas-radioactive-water-be-dumped-at-sea.html#.Uv1NH_ZBxOk)
- [http://www.nytimes.com/interactive/2014/04/27/science/chernobyl-capping-a-catastrophe.html?\\_r=0](http://www.nytimes.com/interactive/2014/04/27/science/chernobyl-capping-a-catastrophe.html?_r=0) - Chernobyl: Capping a Catastrophe – NYTimes.

**Helpful Reputable Sources:**

- |   |   |   |
|---|---|---|
| • NY Times, NBC, ABC                                | • National Geographics  | • Nuclear energy                                      |
| • Popular Science                                   | • World Nuclear   | Institute   |
| • AICHE   | Association   | <a href="http://www.nei.org/">http://www.nei.org/</a> |
| • American Chemical society                         | <a href="http://www.world-nuclear.org">http://www.world-nuclear.org</a> |   |
| <a href="http://www.acs.org">http://www.acs.org</a> |   |   |

**Due Dates:**

Outline is due on FRIDAY, May 2<sup>nd</sup>

Rough Draft is due on Wednesday, May 7<sup>th</sup>

Final Draft is due Monday May 12<sup>th</sup>

**Nuclear Power Outline**

Define the following terms:

- 1) Fusion
- 2) Fission

Which of these is used to generate nuclear power?

How is nuclear power generated?

Should we expand nuclear power in the U.S.? (Yes/No)

Provide 2 reasons why:

- 1)
- 2)

What is one reason one person would argue against your opinion:

How would you refute their opposing reason?

**OVERALL Minimum of 3 different sources:**  
**Reason 1 (Minimum of 3 pieces of evidence):** \_\_\_\_\_  
\_\_\_\_\_

Source	Related Evidence

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Reason 2 (**Minimum of 3 pieces of evidence**): \_\_\_\_\_

\_\_\_\_\_

Source	Related Evidence

Reason that a person would argue against your opinion: \_\_\_\_\_

\_\_\_\_\_

Below provide evidence to refute their argument (at least **3 pieces of evidence to refute**):

Source	Related Evidence


How to cite an article from online in your Works Cited:

### ***A Page on a Web Site***

For an individual page on a Web site, list the author or alias if known, followed by the information covered above for entire Web sites. Remember to use *n.p.* if no publisher name is available and *n.d.* if no publishing date is given.

"How to Make Vegetarian Chili." *eHow*. Demand Media, n.d. Web. 24 Feb. 2009.

### ***An Article in a Web Magazine***

Provide the author name, article name in quotation marks, title of the Web magazine in italics, publisher name, publication date, medium of publication, and the date of access. Remember to use *n.p.* if no publisher name is available and *n.d.* if no publishing date is given.

Bernstein, Mark. "10 Tips on Writing the Living Web." *A List Apart: For People Who Make Websites*. A List Apart Mag., 16 Aug. 2002. Web. 4 May 2009.

Mushnick, Phil. "Sterling Continues to Call it Wrong." *New York Post* N.p., 23 Apr. 2012. Web. 2 Jan. 2013.

### ***Recorded Films or Movies***

List films by their title. Include the name of the director, the distributor, and the release year. If relevant, list performer names after the director's name. Use the abbreviation *perf.* to head the list. End the entry with the appropriate medium of publication (e.g. DVD, VHS, Laser disc).

*Ed Wood*. Dir. Tim Burton. Perf. Johnny Depp, Martin Landau, Sarah Jessica Parker, Patricia Arquette. Touchstone, 1994. DVD.

Use the website easybib or purdue owl to help with citations!