

The use of Nuclear Power has been controversial for a long time. Proponents of its use claim that it is a very “clean” form of energy since very little fuel is needed to generate a lot of energy, and since no air pollution is produced, as in the burn of coal. However, because of accidents such as the one at Three Mile Island in the U.S., and the one at Chernobyl in the former Soviet Union, many people are opposed to Nuclear Power. Also, environmentalists, as well as other citizen groups, are concerned about the disposal of the radioactive waste generated by the mining, processing and use of nuclear fuel. Currently, there are no universally acceptable methods for the storage and disposal of these wastes and there is concern that buried wastes might leak in to ground water and eventually make it into surface waters or into drinking water supplies.

Are the concerns of these citizens well founded, or are they a result of misinformation? Is Nuclear Power less damaging to the environment than the combustion of coal and oil, which is connected to air pollution and global warming? Or, is radioactive waste a permanent problem?

Even scientists disagree on these issues. What do you think?

Assignment: You will choose one side of the debate and research and write an opinion paper on the issue.

- You will need to research the advantages and disadvantages of Nuclear Energy.
- What countries have successfully used nuclear energy in regards to power output, cost, safety?
- What countries have experienced failures (accidents, cost efficiency) with nuclear energy?
- What waste is produced? How much? How is it dealt with? What is the long term plan for waste?

Some sites that list pros and cons:

<http://www.naturaledgeproject.net/thegreatsustainabilitydebates-nuclearpower.aspx>

<http://www.livescience.com/5227-energy-debates-nuclear-power.html>

<http://energyinformative.org/nuclear-energy-pros-and-cons/>

www.clearpictureonline.com/SO-Nuclear%20Power.html

www.conserve-energy-future.com/pros-and-cons-of-nuclear-energy.php

<http://www.triplepundit.com/special/energy-options-pros-and-cons/nuclear-energy-pros-and-cons/>

Organization of Scientific Position Paper:

Introduction – Introduce your position and summarize the key ideas, including a strong statement why the topic is important.

Paragraph 1 and 2 – Each paragraph begins with a point that you will explain with evidence to support your position.

Paragraph 3 – Explain the other side's position and explain why you disagree, using evidence.

Conclusion – Summarize your finding and make a firm statement about your final position

Marks Breakdown

10 marks – Well organized paper with a logical order, clear information, clear thesis statement. Complete sentences. Grammatically Correct.

5 marks – Opinion is clearly supported by examples. The science included is correct and at the appropriate level.

5 marks – references are included and cited at the end of the paper.

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