

Nuclear Energy Web Quest

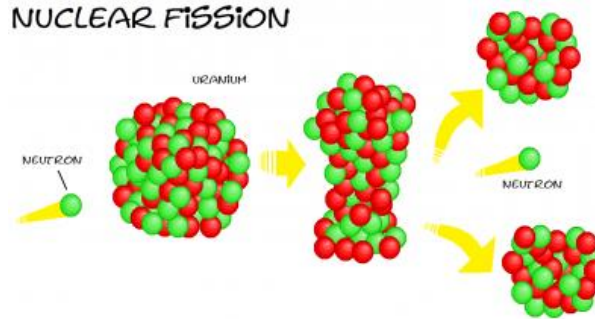
Name _____

Date _____

Objectives:

- Describe the process used to obtain energy from radioactive elements
- Analyze the pros and cons of using nuclear energy

Task 1: Use the sites provided in order to describe the process of nuclear fission and fusion by answering the questions below.



Nuclear power

Go to: <http://library.thinkquest.org/17940/texts/fission/fission.html>

1. What is a fissile isotope and why is it important to fission?
2. what element/isotope is used in nuclear power plants?
3. What is a chain reaction?

Go to: <http://www.howstuffworks.com/nuclear-power.htm>

1. What is induced fission?
2. Discuss the release of energy by fission.
3. How does a nuclear power plant work?
4. What precautions are taken on the outside of a nuclear power plant?

Go to: http://fusioned.gat.com/what_is_fusion.html

1. What is fusion?
2. What is necessary in order to make fusion happen?
3. Why is fusion preferred over fission?

Task 2: Use the sites below to investigate repercussions and disasters related to radiation.

Repercussions and disasters

Go to: <http://science.howstuffworks.com/nuclear-power5.htm>

1. What was the prime-worst nuclear disaster?
2. What happen at Chernobyl?
3. What happen in Japan in March 2011?
4. Why didn't the safety measures stop radioactivity at the plant?

Go to: http://library.thinkquest.org/3471/radiation_effects_body.html
Scroll down to section: Major Radiation Exposure in Real Life Events

1. What did doctors see for the first time at Hiroshima?Nagasaki?
2. What did people at Hiroshima/Nagasaki die from a week after the explosion?
3. What physical ailments did the survivors suffer through?
4. What happen at Three Mile island?
5. What was the major result of the accident there?
6. How much nuclear fuel and graphite were ejected at Chernobyl?
7. How large was the radioactive release at Chernobyl?

Task 3: Use the site below to investigate the pros and cons of nuclear energy

Go to: <http://www.howstuffworks.com/nuclear-power.htm>

1. What are the pros of nuclear power plant?
2. What are the cons of nuclear power plant?

Task 4: Write a brief summary of your findings including the following:

- How nuclear energy works
- Pro's and cons of using nuclear energy
- Your opinion on the use of nuclear energy. Do you think we should continue/use more nuclear power as opposed to other sources such as fossil fuels? Why or why not?