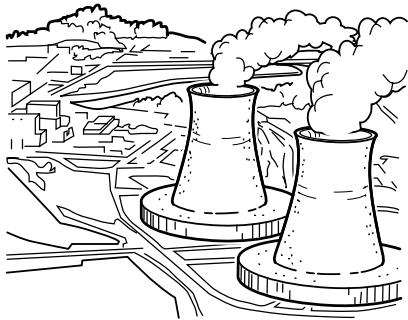




Meltdown!

The worst nuclear power plant accident in the history of the United States occurred on March 28, 1979, at Three Mile Island, near Harrisburg, Pennsylvania. A series of mechanical, electrical, and human errors led to the release of radioactive gases and water into the environment. Just 7 years later, the nuclear power plant in Chernobyl, USSR, exploded, forcing almost 5 million people to evacuate the area. These accidents and other issues make the use of nuclear energy too risky to some, while others consider it one of the cleanest, safest options.



Dueling Accidents

1. Using library resources and the Internet, compare and contrast the accidents at Chernobyl and Three Mile Island. In each case, what events led to the accident? What is a core meltdown? Could the accidents have been avoided? What methods were used to clean up the sites? Are the sites still dangerous? What did nuclear scientists learn from these disasters? Present your findings in an oral presentation with visual aids.

Other Research Ideas

- In the 1940s, a group of scientists worked together in universities and in the deserts of New Mexico on a secret war project called the Manhattan Project. Research what they were doing, who was involved, and what their goals were. Write a newspaper story as if you were a reporter writing in 1944 and you just discovered this secret project.
- Research the work of a pioneer in the field of radioactivity. Antoine-Henri Becquerel, Marie Curie, Otto Hahn, Ernest Rutherford, Bertram Borden Boltwood, and Lise Meitner are all good subjects. Write a short biography of the scientist that you chose. Be sure to include how his or her contributions fit into the history of radioactivity research.

Long-Term Project Idea

- Research the element radon and the problem with radon in the home. What is radon? How does it end up in our homes? Why is it dangerous to be exposed to high levels of radon? How long have we known about its dangers? Obtain a radon-detection kit, examine its contents, and read the directions. Then, test your home for radon and analyze the results. Report your findings as an article for the school newspaper.

INTERNET KEYWORDS

- atomic energy
Chernobyl
Three Mile Island
- Manhattan Project
J. Robert Oppenheimer
- radon
contamination
radon exposure

