

This week's issue:

# NUCLEAR POWER: OUR ENERGY FUTURE OR DANGER TO SOCIETY?



#### Questions for Classroom Discussion:

- How does a nuclear plant generate electricity?
- What are some ways we consume oil in the U.S.?
- What are two advantages of nuclear power?
- How can nuclear power be dangerous?
- What are some other ways we can derive the power we need for cars, electric lights, and heat?

Pilgrim Nuclear Station sits just off the road 40 miles from Boston, Massachusetts. This power plant makes electricity by heating water with a controlled nuclear reaction. Boiling water makes steam. The steam turns a turbine to **generate** electricity. Power lines take electricity **derived** from the plant all over the state of Massachusetts.

Some politicians want to build more nuclear power plants like Pilgrim. They see nuclear power as a good alternative to expensive oil. Because we **consume** so much oil in America, we depend on oil from other countries. Nuclear power can be made in the United States, so nuclear energy cannot be cut off by another country. Nuclear power has another major **advantage**. It does not pollute the air like gas or coal does.

People who are concerned about nuclear power point to safety issues. Some nuclear power plants have leaked radioactive chemicals. The chemicals are blown by the wind and can **contaminate** water in nearby communities. Doctors have found higher rates of cancer in towns near the Pilgrim power plant.

The biggest worry about nuclear power is a meltdown. In a meltdown, the nuclear reaction gets out of control inside the plant. It gets so hot, the building explodes or breaks apart. Clouds of poisonous chemicals spread over a huge area. At Chernobyl, in Eastern Europe, a nuclear plant meltdown in 1986 spread contamination all over Europe. Thousands of people developed cancer after the meltdown. After the Chernobyl disaster, the U.S. stopped building new nuclear power plants.

Supporters of nuclear power believe that safer power plants can prevent these problems. They want the U.S. to start building nuclear power plants again. Is nuclear power worth the risks?

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generate | derive | advantage | consume | contaminate

## USE THE FOCUS WORDS

**generate** (*verb*) to produce

➡ *Sample Sentence:* Boiling water makes steam, and steam turns the turbine to **generate** electricity.

🗣️ *Turn and Talk:* What **generates** stress among young people in your community?

**derive** (*verb*) to come from; to obtain from

➡ *Sample Sentence:* Her confidence is **derived** from years of playing sports.

🗣️ *Turn and Talk:* From what do you **derive** happiness? I **derive** happiness from \_\_\_\_\_.

**advantage** (*noun*) quality that gives someone a better chance than others

➡ *Sample Sentence:* One **advantage** of nuclear power is that it does not pollute the air like gas or coal.

🗣️ *Turn and Talk:* What is one **advantage** of getting a good night's sleep?

**consume** (*verb*) to use up

➡ *Sample Sentence:* Because we **consume** so much oil in America, we import oil from other countries.

🗣️ *Turn and Talk:* What are some things you can do to reduce the amount of electricity you **consume**?

**contaminate** (*verb*) to poison; to pollute

➡ *Sample Sentence:* If nuclear waste is not stored properly, it can **contaminate** soil and water.

🗣️ *Turn and Talk:* What steps do doctors and nurses take to avoid **contaminating** patients?

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## DEBATE THE ISSUE

Pick one of these positions (or create your own).

# A

Nuclear power is too risky and should not be used.

OR

# B

The **advantages** of nuclear power are worth the risks.

OR

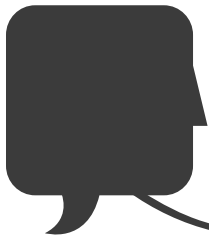
## CREATE YOUR OWN

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Jot down a few notes on how to support your position during a discussion or debate.

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Be a strong participant by using phrases like these:



““ Can you show me evidence in the text that...””

““ I believe that...””

““ You make a good point, but have you considered...””

““ I agree with you, but...””

