

## TOMORROW IS THE GREAT DEBATE - Nuclear Power

Today, I want you to do some research to find out more about the topic and decide where you stand.

You may not have ever considered nuclear power, or you may have thought about it a lot due to seeing things on the news and in movies and TV.

Today I want you to do some REAL research, not from news stations, about nuclear power.

You can use the books I've provided from the library or you can use the internet, but

**ONLY SITES THAT END IN .edu, .org, or .gov are allowed**

Suggested search terms: "pros and cons of nuclear power" "nuclear power explained" "nuclear power simplified" "what are the dangers of nuclear power" "how often do accidents happen in nuclear power plants" "what are the benefits of nuclear power" "do the benefits outweigh the dangers of nuclear power" "are nuclear power plants statistically safe" "is nuclear power safe"

Copy and paste link to webpage

here [https://www.ccsdut.org/site/handlers/filedownload.ashx?moduleinstanceid=300&dataid=1181&FileName=nuclear\\_power.pdf](https://www.ccsdut.org/site/handlers/filedownload.ashx?moduleinstanceid=300&dataid=1181&FileName=nuclear_power.pdf):

Or fill this in for a book: Title \_\_\_\_\_ Author \_\_\_\_\_ pg \_\_\_\_\_

What I discovered:

It doesn't depend on fossil fuels and isn't affected by fluctuating oil and gas prices. Coal and natural gas power plants emit carbon dioxide into the atmosphere, which contributes to climate change. With nuclear power plants, CO2 emissions are minimal.

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What I discovered:

One of the scariest things about nuclear power is when something goes wrong and an accident occurs. Radiation is released into the environment and people get hurt. Two of

the most famous nuclear accidents occurred at the Three Mile Island reactor 2 in the United States and the Chernobyl reactor 4 in the former Soviet Union.

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What I discovered:

According to the Nuclear Energy Institute, the power produced by the world's nuclear plants would normally produce 2 billion metric tons of CO<sub>2</sub> per year if they depended on fossil fuels. In fact, a properly functioning nuclear power plant actually releases less radioactivity into the atmosphere than a coal-fired power plant

Copy and paste link to webpage

here: <https://www.energy.gov/ne/articles/advantages-and-challenges-nuclear-energy>

Or fill this in for a book: Title \_\_\_\_\_ Author \_\_\_\_\_ pg \_\_\_\_\_

What I discovered: Clean Energy Source. Nuclear is the largest source of clean power in the United States.

Nuclear power plants run 24 hours a day, 7 days a week. They are designed to operate for longer stretches and refuel every 1.5 – 2 years. In 2019, nuclear plants operated at full power more than 92% of the time, making it the most reliable energy source on the grid today.

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Or fill this in for a book: Title \_\_\_\_\_ Author \_\_\_\_\_ pg \_\_\_\_\_

What I discovered: A strong civilian nuclear sector is essential to U.S. national security and energy diplomacy.

to further improve operating costs. DOE is also working with industry to develop new fuels and cladding known as accident tolerant fuels. These new fuels could increase plant performance, allowing for longer response times and will produce less waste.