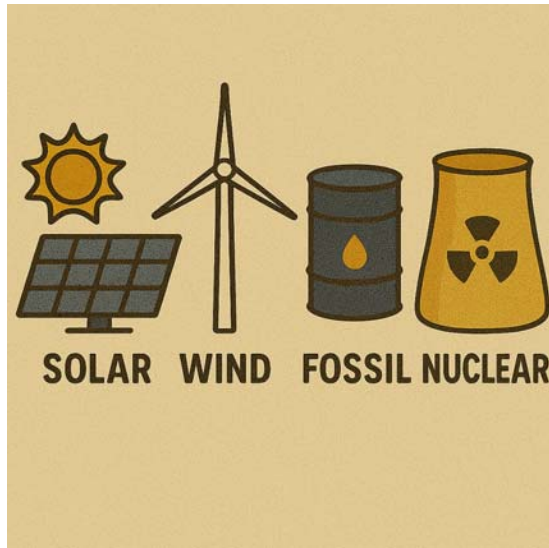


Name _____

How Does Nuclear Energy Compare to Solar, Wind, and Fossil Fuels?



We use many kinds of energy to power our homes, schools, and cities. Some energy comes from the sun or wind. Some comes from burning fossil fuels like coal, oil, and gas. Another powerful type of energy comes from splitting atoms. That's called nuclear energy. Each source has its own strengths and challenges.

Fossil fuels are the most common source of energy around the world. They are easy to use and can produce lots of electricity. But burning them pollutes the air. This pollution adds carbon dioxide (CO₂) to the atmosphere, which makes climate change worse.

Solar and wind energy are cleaner. They use natural sources that don't run out. When the sun shines or the wind blows, we can make electricity without causing pollution. But they don't always work all the time. At night or when there's no wind, they can't produce energy unless it's stored in batteries.

Nuclear energy is powerful and clean. It doesn't produce air pollution or carbon dioxide. One small amount of nuclear fuel can make a huge amount of electricity. It can run all day and night, no matter the weather. But it does create radioactive waste, which must be stored safely. And if something goes wrong in a nuclear power plant, it can be dangerous.

So which is best? It depends on what we need. Fossil fuels are still used the most, but they harm the planet. Solar and wind are great for the environment but need good weather and storage systems. Nuclear power gives steady, clean electricity, but it must be handled very carefully.

Some people believe the best plan is to use a mix of energy sources. This way, we can get the power we need while keeping our air clean and our planet safe.