

GRADE 9

Strong reading skills are the foundation learning!

Is your child struggling with reading comprehension, fluency, or vocabulary?

Brighterly's expert reading tutors make lessons fun, personalized, and effective - whether your child is just starting out or ready to level up their literacy skills.

From phonics to reading confidence, we're here to help your child love reading - and get better at it every day.



Why Learn with Brighterly? ✨



Assessment-Based Learning



Custom Curriculum



Homework Support



Engaging Platform

The Rise of Renewable Energy Sources



Renewable energy sources are rapidly becoming a crucial part of the global energy landscape, offering a more sustainable and environmentally friendly alternative to traditional fossil fuels. Renewable energy comes from natural resources that are replenished constantly, such as sunlight, wind, and water. Solar energy, for example, is harnessed using photovoltaic cells that convert sunlight into electricity. Wind energy is generated through turbines that capture the power of wind to produce electricity. Hydropower, one of the oldest renewable energy sources, uses the flow of water to generate energy, typically through dams. These renewable energy sources are cleaner and more sustainable compared to fossil fuels, which release harmful pollutants like carbon dioxide into the atmosphere. As concerns over climate change and environmental degradation grow, many countries are increasing their investments in renewable energy technologies to reduce greenhouse gas emissions and promote cleaner, more sustainable power generation. The shift to renewable energy is not just about reducing pollution but also about ensuring a reliable and future-proof energy supply.

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In addition to being environmentally friendly, renewable energy sources offer numerous economic and social benefits. One of the most significant advantages is the creation of new jobs. The renewable energy sector has already created millions of jobs worldwide in areas such as manufacturing, installation, and maintenance of solar panels, wind turbines, and other renewable infrastructure. These jobs often require skilled workers and can help boost local economies, especially in rural or underdeveloped areas. Furthermore, renewable energy can reduce dependence on imported fossil fuels, which can be subject to price volatility. By relying more on homegrown energy sources, countries can strengthen their energy security and reduce their exposure to global energy price fluctuations. In some cases, renewable energy technologies, like solar panels, can even be used by individuals or businesses to generate their own power, cutting costs and providing more energy independence. The rise of renewable energy is not just a technological shift but also an economic opportunity, leading to a more sustainable and resilient energy future.

Despite the many benefits, the transition to renewable energy is not without its challenges. One of the primary obstacles is the intermittency of renewable energy sources. Solar and wind power, for example, depend on weather conditions and time of day, which means they are not always available when demand is high. This can create challenges for grid operators who need to balance supply and demand in real-time. To address this, researchers are developing better energy storage solutions, such as advanced batteries, to store excess energy generated during sunny or windy periods for use when these resources are unavailable. Another challenge is the upfront cost of installing renewable energy systems, especially solar panels and wind turbines, which can be expensive. However, the costs of renewable energy technologies have dropped significantly in recent years, making them more affordable for both individuals and companies. In many cases, government incentives, tax credits, and subsidies are helping to make renewable energy more accessible. As technology continues to improve and costs continue to fall, renewable energy will become an increasingly important part of the global energy mix, driving us toward a cleaner and more sustainable future.

Part 1: Answer the following questions based on the passage.

Q1: What are renewable energy sources, and why are they important?

Q2: Who benefits from the creation of new jobs in the renewable energy sector?

Q3: Where are renewable energy sources such as solar and wind power primarily used?

Q4: When did the cost of renewable energy technologies begin to decrease, making them more affordable?

Q5: Why is the intermittency of renewable energy sources considered a challenge?

Part 2:

 **Answer the following questions in complete sentences. Provide detailed responses that explain your reasoning or opinions.**

Q1: How do you think the rise of renewable energy sources will impact global economies in the long run?

Q2: In your opinion, what are some potential solutions to overcome the intermittency of renewable energy sources like solar and wind power?

Q3: Do you think the transition to renewable energy will be successful in reducing climate change? Why or why not?

Q4: How can individuals contribute to the renewable energy shift in their communities or households?

Q5: Why is the intermittency of renewable energy sources considered a challenge?



✓ Right Answers

Part 1: Answer the following questions based on the passage.**Q1: What are renewable energy sources, and why are they important?**

Renewable energy sources are natural resources that are replenished constantly, such as sunlight, wind, and water. They are important because they provide a sustainable, environmentally friendly alternative to fossil fuels and help reduce harmful pollutants, greenhouse gas emissions, and environmental degradation.

Q2: Who benefits from the creation of new jobs in the renewable energy sector?

Many people benefit from the creation of new jobs in the renewable energy sector, including skilled workers in manufacturing, installation, and maintenance of renewable energy infrastructure. This is particularly beneficial in rural or underdeveloped areas, where it can help boost local economies.

Q3: Where are renewable energy sources such as solar and wind power primarily used?

Renewable energy sources such as solar and wind power are primarily used in the generation of electricity, with solar panels and wind turbines installed in various locations, including homes, businesses, and large-scale power generation facilities.

Q4: When did the cost of renewable energy technologies begin to decrease, making them more affordable?

The cost of renewable energy technologies began to decrease significantly in recent years, making them more affordable for both individuals and companies. This decrease in cost is primarily driven by advancements in technology and increased demand.

Q5: Why is the intermittency of renewable energy sources considered a challenge?

The intermittency of renewable energy sources is considered a challenge because solar and wind power depend on weather conditions and time of day, meaning they are not always available when demand is high. This can make it difficult to balance supply and demand on the energy grid.

Part 2:

 **Answer the following questions in complete sentences. Provide detailed responses that explain your reasoning or opinions.**

Q1: How do you think the rise of renewable energy sources will impact global economies in the long run?

The rise of renewable energy sources will likely have a positive long-term impact on global economies by creating new industries, job opportunities, and economic growth in the clean energy sector. As countries move away from fossil fuels, they can reduce their dependence on imported energy, making their economies more energy-independent and resilient to global energy price fluctuations.

Q2: In your opinion, what are some potential solutions to overcome the intermittency of renewable energy sources like solar and wind power?

Some potential solutions to overcome the intermittency of renewable energy sources include the development of advanced energy storage technologies, such as batteries, to store excess energy for use when resources are unavailable. Additionally, expanding the energy grid to connect renewable energy sources across regions and implementing smart grid systems could help balance supply and demand more effectively.

Q3: Do you think the transition to renewable energy will be successful in reducing climate change? Why or why not?

Yes, I believe the transition to renewable energy will be successful in reducing climate change, as renewable sources like solar, wind, and hydropower produce little to no greenhouse gas emissions, helping to mitigate the effects of global warming. However, the success will depend on widespread adoption, investment in new technologies, and supportive policies from governments worldwide.

Q4: How can individuals contribute to the renewable energy shift in their communities or households?

Individuals can contribute to the renewable energy shift by using energy-efficient appliances, installing solar panels on their homes, and supporting local policies that promote renewable energy development. Additionally, they can reduce energy consumption by practicing conservation habits and advocating for clean energy solutions in their communities.

Q5: Why is the intermittency of renewable energy sources considered a challenge?

One possible drawback of relying on renewable energy sources is their intermittency, as solar and wind power are not always available. This can be mitigated by improving energy storage systems and integrating renewable energy into a diversified energy grid that includes other sources like hydropower or geothermal energy. Another drawback is the upfront cost of renewable energy technologies, which can be addressed through government incentives, subsidies, and continued technological advancements that reduce costs.