

Read the short story and answer each question.

How Solar Energy Works

Solar energy is one of the most common forms of renewable energy in the world. It uses sunlight to create electricity through devices called solar panels. These panels are often placed on rooftops or in wide open fields where they can absorb as much sunlight as possible. Inside each panel are special cells that convert sunlight into electrical energy. This electricity can power homes, schools, and even entire cities. Solar energy is clean, which means it doesn't produce pollution or harmful gases. However, it doesn't work as well on cloudy days or at night, which means other sources of energy may still be needed. Scientists are working on ways to store solar power for later use. Despite the challenges, solar energy continues to grow because it helps reduce our use of fossil fuels like coal and oil. It's a key part of building a cleaner and more sustainable future.

## The Power of Wind Energy

Wind energy is another popular source of renewable energy. It uses the movement of air to create electricity using machines called wind turbines. These turbines have large blades that spin when the wind blows. The spinning blades turn a generator, which makes electricity. Wind farms, which are areas with many turbines, are often built in flat, windy places like open plains or near coastlines. Like solar power, wind energy is clean and does not produce air pollution or greenhouse gases. One challenge with wind energy is that it depends on the weather—if there's no wind, there's no power. Also, some people think the turbines are noisy or take up too much space. Still, wind power continues to grow because it's a safe and renewable way to produce energy. When used together with solar and other clean sources, wind energy can help meet the world's growing need for electricity.





# Name:

## How Solar Energy Works & The Power of Wind Energy

1. What is one thing both texts say about renewable energy?		2. How does the second text add to your understanding of clean energy?	
Α.	It is expensive and limited to cities.	A. R	It shows how coal is still useful. It explains how wind turbines make power and what problems they can cause.
В.	It depends on natural sources like sunlight or wind.	D.	
С.	It is only used in homes, not schools.	С.	It shows that solar energy can be stored.
D.	It produces harmful gases during use.	D.	It focuses on fossil fuel mining and drilling.

### 3. Fill in the blank:

Wind farms are usually built in areas with strong, steady \_\_\_\_\_.

4. How are solar energy and wind energy similar and different?

5. How does reading both texts help you understand more about how clean energy works?



Guide Reading Level: U Lexile Level: 925L-1075L Grade Level: 5th Grade, Middle of the Year Genre: Informational Text / Science & Technology

#### Introducing the Text

"Today we'll read two short texts about renewable energy—one about solar power and one about wind power. As we read, we'll learn how each source works, what challenges they face, and how they're helping the planet. Then we'll put the information together to understand more about clean energy."

Vocabulary: renewable, solar panel, turbine, generator, sustainable

#### **Before Reading Discussion Questions**

- 1. What do you know about solar and wind energy?
- 2. Why do people want to use renewable energy?
- 3. What might be some challenges with clean energy sources?

#### **During Reading Discussion Questions**

- 1. How do solar panels and wind turbines create electricity?
- 2. What are the environmental benefits of using renewable energy?
- 3. What problems are mentioned in both texts?

#### **After Reading Discussion Questions**

- 1. Which energy source do you think is more useful or reliable—why?
- 2. How did reading both texts help you learn more than reading just one?
- 3. What other questions do you have about clean energy?

#### Activity Idea

Students will create a double-sided infographic comparing solar and wind energy. Each side should include a diagram, at least two facts, one benefit, and one challenge. Students will share their infographics in small groups or as a classroom display.

