



Wind Turbine Design Post-Test



1. How are a wind turbine and a fan similar or different?

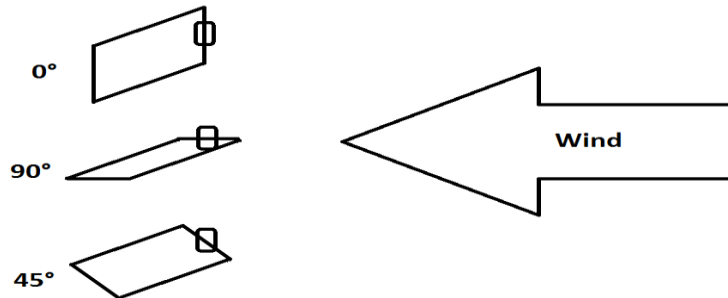
- A. They are the same. They both turn wind into energy.
- B. They are the same. They both turn energy into wind.
- C. They are opposites. A wind turbine converts kinetic energy into electrical energy, and a fan converts electrical energy into kinetic energy.
- D. They are opposites. A wind turbine converts electrical energy into kinetic energy, and a fan converts kinetic energy into electrical energy.

2. Which of the following *increases* the power generated by a wind turbine?

Circle all answers that apply.

- A. Increasing wind speed
- B. Decreasing air density
- C. Decreasing sunlight
- D. Increasing blade size
- E. Increasing rainfall

3. What happens to the power produced by a wind turbine if the blades are placed at each of the three angles below? Explain.



0°:

90°:

45°:

Name: _____ Date: _____ Class: _____

- 4. How would you design a wind turbine to collect the most energy?
Draw an example and explain below.**