Combine Information From Sources

Grade 5 Reading Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

READ THIS FIRST

Two Texts About Wind Power

Text 1: Power from Moving Air

Wind turbines turn moving air into electricity. When wind pushes on a turbine's long blades, they spin a shaft inside the tower. The shaft turns a generator, which makes electric current. Modern turbines are huge. Many towers are taller than a 25-story building, and each blade can be longer than a basketball court. A single large turbine on land can make enough electricity for hundreds of homes. Some turbines stand in the ocean, where winds are often stronger.

Wind power has several advantages. Wind is free, and it will never run out. A turbine does not burn fuel, so it does not release smoke or the gases that warm Earth's climate. Farmers can rent part of their land for turbines and still grow crops or raise cattle around the towers.

Wind power also has limits. The wind does not blow all the time, so turbines make more electricity on some days than others. Power companies must store extra energy in giant batteries or use other sources on calm days. The strongest, steadiest winds are often found far from cities. New power lines are needed to carry that electricity to the people who use it. Some places are also testing other ways to store wind energy, such as pumping water uphill to use later.

Text 2: Turbines and Birds

As wind farms spread, scientists began asking how turbines affect wildlife. Birds and bats sometimes fly into spinning blades. Large birds that soar, such as eagles and hawks, are especially at risk. They often watch the ground below instead of looking ahead. Bats are most at risk on warm, calm nights in late summer.

Researchers say the risk depends greatly on where turbines are placed. Building them along migration routes or near nesting cliffs causes the most harm. Today, many companies study bird movements for a year or more before choosing a site.

New ideas are also helping. In one test in Norway, researchers painted one blade of each turbine black. The dark blade made the spinning blades easier for birds to see. Over several years, bird collisions at those turbines dropped by about 70 percent. Other wind farms use cameras that spot large birds and slow the blades until the birds pass. Some turn turbines off on certain nights during bat migration season, when bats are most active.

Turbines are not the only risk birds face. Glass windows, cars and the loss of wild land affect many more birds. Still, scientists want each new risk kept as small as possible.

These steps cost money and can lower how much electricity a wind farm makes. Still, many scientists believe that careful planning lets wind power and wildlife share the sky.

1. What is the central idea of Text 1?
   - Wind turbines are dangerous for birds.
   - Wind turbines burn fuel to spin their blades.
   - Wind power is used only on farms.
   - Turbines make clean electricity but have limits.

2. What is the central idea of Text 2?
   - Careful planning can lower the risk to birds and bats.
   - Birds are not affected by turbines.
   - All wind turbines should be shut down.
   - One large turbine can power hundreds of homes on its own.

3. Text 1 lists the advantages and limits of wind power. What new limit does Text 2 add?
   Turbines need giant batteries.
   Turbines can put birds and bats at risk.
   New power lines are needed.
   The wind does not blow all the time.

4. Text 1 says the steadiest winds are often far from cities. What does Text 2 suggest about choosing such places?
   Builders should also check whether birds migrate or nest there.
   Wind farms work best near nesting cliffs.
   Turbines should be built only near cities.
   Any windy place far from cities is safe for birds.

5. Both texts mention costs of wind power. Which statement combines them?
   The only cost of wind power is painting blades.
   Storage and power lines cost money, and so does protecting wildlife.
   Wind power is completely free once it begins.
   Text 1 says wind is free, so Text 2 must be wrong.

6. Text 2 says some turbines are turned off during bat season. Which fact from Text 1 shows why this matters to power companies?
   They must use batteries or other sources when turbines make less.
   A turbine's shaft turns a generator.
   Farmers can still grow crops and raise cattle around the towers.
   Turbines do not release any smoke.

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Answer Key - Grade 5 Reading Worksheet - Challenge Me

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