Name _____ Date _____

Reading Comprehension Test

Unit 8, Week 1

Directions: Read the procedure. Then answer the questions about the steps in the procedure.

How to Build a Windmill

Gathering the Materials

Would you like to build a windmill? To begin with, you will need to find the following materials:

- a large plastic bottle (for soda or water)
- strong scissors
- strong glue
- a nail
- a hammer
- a drill (and an adult to operate it!)
- a wooden stake (a thick stick that is pointed on one end)

Preparing the Materials

Start by cutting the top and bottom off the plastic bottle; keep the bottom piece. Second, flatten the middle part of the bottle. Then cut it in half along the edges. Now you have two pieces of equal size.

Next, fold each of the two pieces in half lengthwise, and cut each into two more equal pieces. That gives you four pieces of the same size, which will be the blades of your windmill.

The next step is to trim the bottom of the bottle to make it about 1.5 inches tall. It will be the hub (center) of your windmill. Once that's done, have an adult drill a small hole in the center of the hub. Then poke the nail through the hole and twist it around, making sure the hub can spin freely around the nail. Remove the nail and keep it. You'll use it again later.

GO ON

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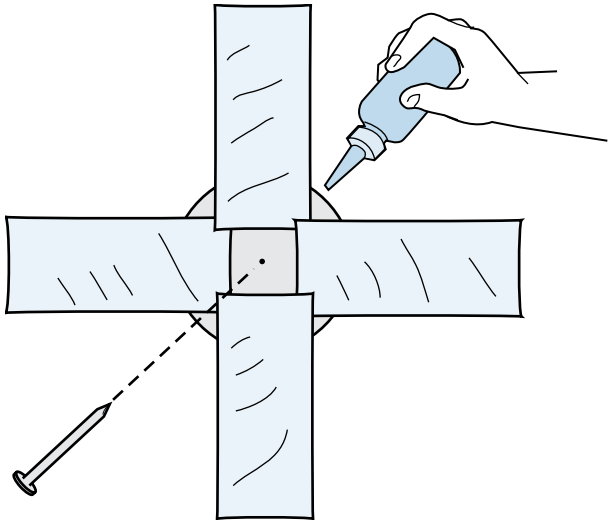
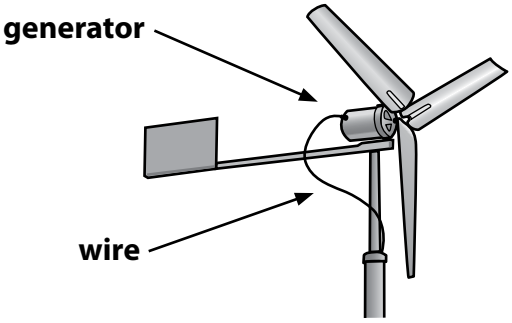
Putting the Materials Together

Now you are ready to build your windmill. Begin by gluing the blades to the center part of the hub. Keep the blades spaced evenly around the nail hole. Be careful not to cover the hole. You'll have to wait for the glue to dry before the final step.



With the nail and a hammer, carefully attach the hub to the blunt end of the wooden stake, blades facing outward. The stake will be the tower of the windmill. It's time to go outside and give it a whirl! You can stick your windmill in the ground or hold it in your hand.

To make electricity, a windmill needs a generator, which is an engine that changes energy (wind) into electricity. The windmill shown here has a generator attached to its hub. A wire carries the electricity.



GO ON

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Reading Comprehension Test

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1. What is the first step in preparing materials for the windmill?
   - Ⓐ Cut each piece in half.
   - Ⓑ Cut along the folded edges.
   - Ⓒ Flatten the middle part of the bottle.
   - Ⓓ Cut the top and bottom off the bottle.

2. What is the second step in preparing materials for the windmill?
   - Ⓐ Glue each blade to the hub.
   - Ⓑ Flatten the middle part of the bottle.
   - Ⓒ Cut along the folded edges of each piece.
   - Ⓓ Trim the bottom of the bottle to 1.5 inches.

3. When putting together the materials to build the windmill, what is the first thing to do?
   - Ⓐ Get an adult's help.
   - Ⓑ Cut each piece in half.
   - Ⓒ Glue the blades to the hub.
   - Ⓓ Find a pair of strong scissors.

4. Which of these is a step in making a windmill?
   - Ⓐ Take the windmill outside.
   - Ⓑ A wire carries the electricity.
   - Ⓒ Poke a nail through the hole.
   - Ⓓ A windmill needs a generator to make electricity.

5. Which step in the process is part of making the blades?
   - Ⓐ twisting a nail in the hole
   - Ⓑ trimming the bottom of the bottle
   - Ⓒ having an adult drill a hole in the hub
   - Ⓓ cutting the first two pieces in half lengthwise

6. What is the final step in building a windmill?
   - Ⓐ waiting for the glue to dry
   - Ⓑ nailing the hub to the stake
   - Ⓒ cutting along folded edges
   - Ⓓ poking a nail through the hole

7. Why can't the windmill built from the directions in this procedure make electricity? Use details from the article to explain.

Score _____/8

DONE!