

Can You Measure Wind?

Student worksheet — *Answer key*

Example Weather Forecast

Directions: Read the weather forecast below. Underline all the information that is about wind.

“There is a wind advisory in effect for the Seattle area through Saturday morning.

Sustained winds from the southwest of 15 to 25 miles per hour are likely, with gusts up to 45 miles per hour. Caution is advised. Expect clouds and daytime temperatures of 45 degrees falling to 37 degrees overnight.”

Anemometer Testing

Directions: Answer the question below.

What do you think will happen to the anemometer when you increase the fan’s wind speed?

Student answers will vary.

Directions: Follow these steps to test your anemometer at the fan station.

Prepare for testing:

1. Turn the fan’s wind speed setting on LOW. Do NOT move the fan!
2. Place the anemometer’s pencil tip on the marked spot in front of the fan.
3. If your anemometer does not spin, loosen the pushpin, or ask your teacher for help.
4. Make sure your anemometer works correctly. During testing, you cannot adjust the pushpin or the cups of the anemometer anymore.

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Testing:

1. Hold the anemometer on the marked spot in front of the fan. Hold it as straight up as possible.
2. Let the anemometer get up to speed by holding it there for a couple of seconds.
3. Start the stopwatch or timer. Count the number of rotations in 15 seconds.
4. Write the number of rotations in the data table below.
5. Repeat steps 1-4 for the MEDIUM and HIGH fan settings. Take turns doing the different jobs.

Directions: Record your data and make a graph of your results. Answer all questions.

1. Record all of your data in this data table:

Measured data will vary. Here are example results obtained by Science Buddies' staff.

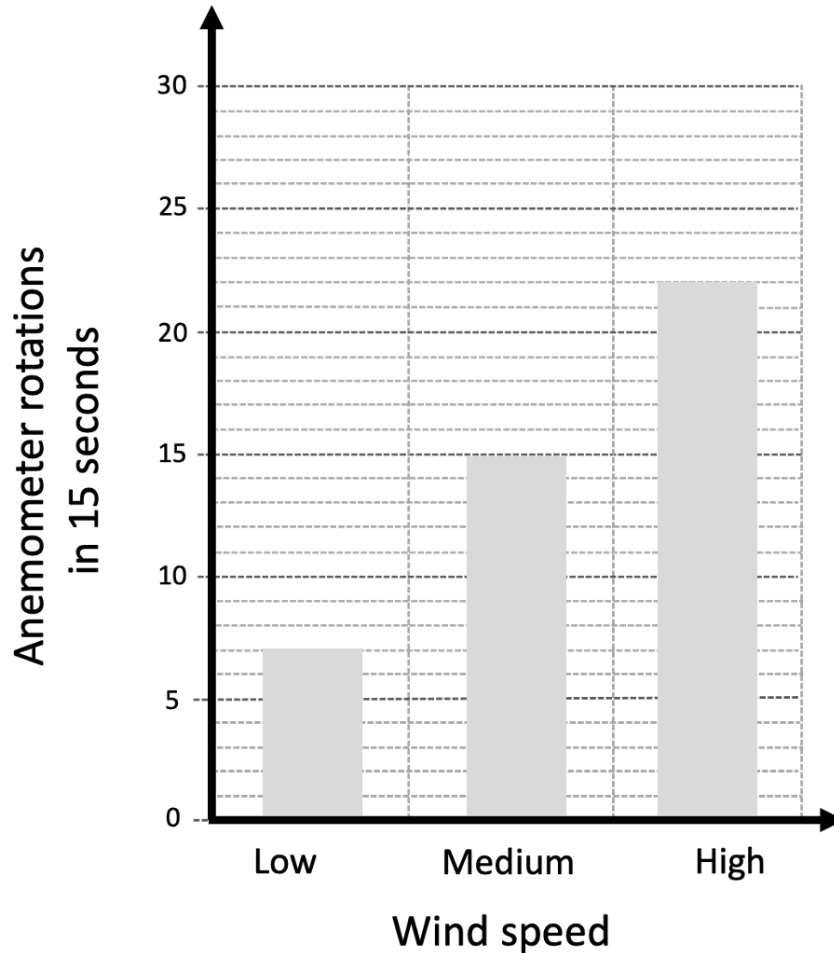
Wind Speed	Anemometer rotations in 15 seconds
Low	7
Medium	15
High	22

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2. Use your data table to make a bar graph of your results:

The graph below represents the example data provided in the data table on Page 2. Although students' rotation numbers might be lower or higher, the general trend should be the same.



3. What happens to the number of anemometer rotations when the fan's wind speed increases? Does it go up, down, or stay the same? Why do you think this happens?

The number of anemometer rotations goes up when the fan's wind speed increases.

A higher fan setting will create a stronger wind with higher wind speeds. Stronger winds will push on the cups of the anemometer harder, making them spin faster.