

Name _____

Wind Turbine Trial Answer Key

1. The team assumes that one short test proves the new blade is better in all conditions.
2. Possible bias includes likely preference for their own new design.
3. Only one old blade and one short test were used.
4. Wind conditions at one place and one time may not represent normal turbine operation.
5. Possible answers include testing multiple blades, running longer trials, or testing in different wind conditions.

Teacher's Guide

- This worksheet strengthens skills in identifying **bias**, **assumptions**, and **experimental limitations**.
- For differentiation, review the meaning of assumption, bias, and limitation with simple examples before students begin.
- For engagement, let students debate whether the team's conclusion is justified using textual evidence.
- For extension, have students redesign the experiment and write a new improved testing plan.
- For advanced learners, ask students to explain how confirmation bias might influence engineers.
- For struggling readers, reread the conclusion sentence together and ask guiding questions about what is missing.