Name: _____ Class: _____ Date: _____

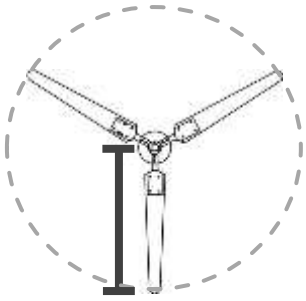
Wind Turbine Design

Use the following worksheet to answer questions and diagram your wind turbine design…

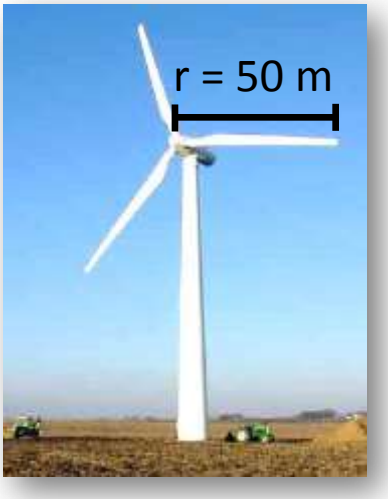
1. Wind Turbines are related to the topic of "Dirty Energy" because…

2. Calculate the area of the circle (in m^2) that was swept out by <u>your</u> blade design.

Area = πr^2



3. Now look at the diagram of a real-life wind turbine (below). Calculate the area of the circle (in m^2) that is swept out by <u>a real-life</u> blade design.



4. **"A real Wind Turbine blade is _____ times larger than the one I built (based on area)."**

5. Draw a diagram of your blade design in the box below.

<u>Materials Used:</u>

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-
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-
-

Wind Turbine Hypotheses

Use the following worksheet to make predictions about which classmate will win the competition. Remember, there is a prize for the winners <u>and</u> a prize for whoever makes the best predictions.

Group Members:	Effectiveness from 1-10:	Reasoning:
Example	7.5	It looks balanced but I think it's too big.

Final Predictions:

First Place: _____

Second Place: _____

Third Place: _____