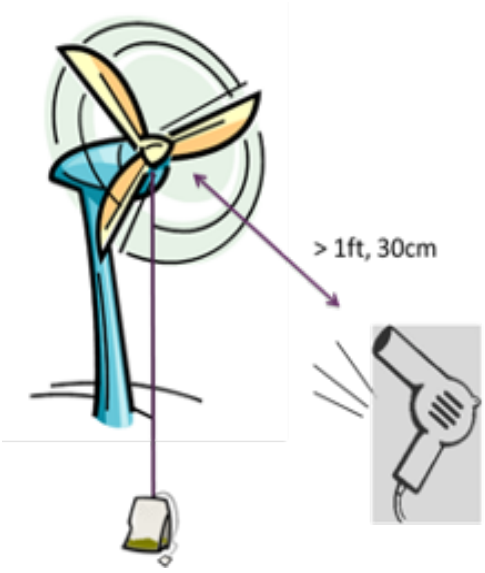
Names: _____

Design, Construct, and Test Your Own Wind Turbine

1. Materials: 1. wooden (popsicle) sticks 2. bendable wire 3. string 4. paperclips 5. rubber bands 6. toothpicks 7. aluminum foil 8. tape 9. wooden dowels 10. paper, cardboard 11. hair dryer 12. glue gun	2. Draw your design:
3. Experiment Set Up  	4. Results of Test 1 What was the speed of your turbine? How powerful was your turbine? What materials did you use? What did you use for the gears? What did you use for the blades?
5. What changes did you make after Test 1?	6. What are you hoping will happen in Test 2?

7. Results of Test 2

What was the speed of your turbine?

How powerful was your turbine?

What materials did you use?

What did you use for the gears?

What did you use for the blades?

How does wind power positively affect our environment?

Self-Assessment Names _____

Rubric	3	2	1	0
Power of Wind Turbine	The wind turbine lifts the cup in less than 1 minute with no human interaction.	The wind turbine takes 1 to 1.5 minutes to lift the cup with no human interaction.	The wind turbine takes 1:30 or longer to lift the cup with no human interaction.	The wind turbine does not lift the cup or the wind turbine requires human interaction to lift the cup.
Free Standing	The wind turbine is free standing with no human interaction.	The wind turbine is free standing after human interaction.	The wind turbine is standing with human interaction.	The wind turbine is not free standing.
Materials	The wind turbine is made with only the materials provided.	The wind turbine is made with provided materials and one unprovided material.	The wind turbine is made with provided materials and more than one unprovided material.	The wind turbine is made of only unprovided materials.
Transfer of Energy (Double Pts = 6 points)	Can explain thoroughly how energy is transferred when objects move	Can explain without much detail how energy is transferred	Can explain with no details that energy is being transferred	Cannot explain
Benefits of Wind Power (Double Pts = 6 points)	Can give 3 ways wind power benefits socieity	Can give 2 ways	Can give 1 way	Can give 0 ways

Names_____

Claims, Explanations, and Evidence

1. In your experiment, how is energy transferred when objects move?

Claim:

Explanation:

Evidence:

2. Does wind energy benefit society?

Claims:

Explanations:

Evidence