

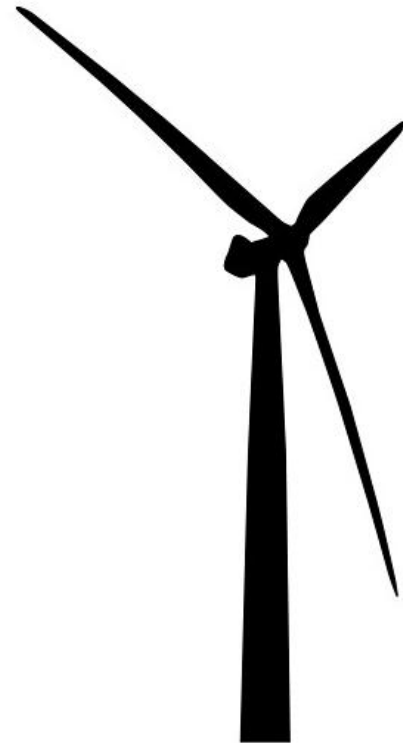
'Got Wind?' Energy Contest 2010 GBS Science Contest

Description: Teams will build a blade assembly that consists of any kind of propeller/blades attached to a compact disc (CD) which will be used to capture wind energy and generate electricity!

Construction: The CD must fit on the mount found on a standard CD player. Modification of the CD (except for the center hole) is allowed. Provided materials or any other non-metal materials (supplied by the team) may be used to construct the propeller/blades. Your team number should be written on your blade assembly. Commercially available propellers/blades, even if modified, may not be used.

Competition: Each team will bring one pre-constructed blade assembly attached to a standard CD to the competition (April 15, beginning at 3:20 p.m. in the new pit.) The team will mount their blade assembly to the motor/generator that is attached to a ring stand in front of a 20" box fan. The event supervisor will turn the fan on high. When the team is ready, the event supervisor will begin collecting data as to the energy generated during a 20 second period of time.

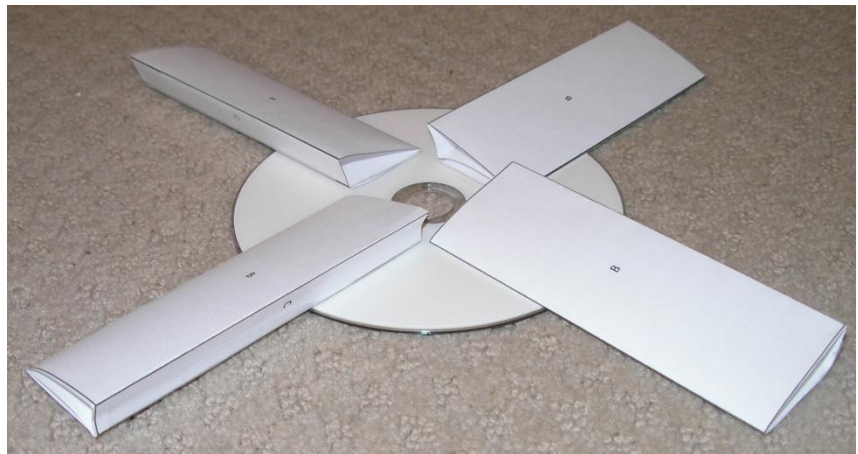
Practice Runs: Practice runs may be made (but are not required) on Monday and Tuesday (April 13 and 14) in the science office between 7:00 a.m. and 4 p.m. Teams may also show their blade assembly to science staff at this time to make sure their blade assembly satisfies the rules.



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To help you get started, you can construct a simple blade assembly by folding the enclosed blades into triangles and gluing them to the CD provided. Overlap and tape/glue side A to side A. Make sure side B is facing up and all side Cs are pointing in the same direction around the CD. Glue all side As to the CD.



These instructions are only meant to get you started, however. How

might you modify this blade assembly to make it spin faster in the wind? You can use the blades provided or attach to a CD any other non-metal materials. In other words, you can make your own blades and come up with a better design. If you wish, you may also modify the CD (except for the center hole which is needed to attach your assembly to the generator) or use a different CD.

Optional Practice Runs: Want to test out what you have made? Come to the Science Office anytime between 7 a.m. – 4 p.m. on Monday or Tuesday (April 13 or 14) before the competition! Good luck!