

**NM MESA Day 2011 Frequently Asked Questions**  
**Last Updated: February 7, 2011**

*This document is intended to clarify any information pertaining to the upcoming MESA Day/Region Design events. This document also acts as an addendum to the MESA Day Handbook and will be followed at each competition.*

**GENERAL INFORMATION:**

Q: I cannot find the discount code given at PDC for KidWind. Can I have again?

A: Code is KWNMBOOK10 and is good for 10% discount on any product. (10/8/10)

Q: Where was the Blade Experiment Event used from?

A: The Blade Experiment Event given in the supplemental materials was provided and slightly modified from SNM-SEMAA out of New Mexico State University. <http://semaa.nmsu.edu/> (10/8/10)

Q: Are the sample competitions given in the back of the handbook, the same that will be at competition?

A: No, the sample competitions were given as an extra resource, BUT ARE NOT the same as competition. They are similar in possible scope, topic, and/or format but NOT the same. (11/8/10)

**PREPARED DESIGN WIND ENERGY CHALLENGE:**

Q: Can we use graphite? It says no lead or hazardous materials in the handbook.

A: Graphite is a form of carbon. It is not the element lead. It can be used. (8/31/10)

Q: Can tape, glue, and/or a glue gun be in the repair kit if not used in the original design?

A: Yes, repair materials such as tape and glue will be allowed in the kit as they are only repairing the design. Additional building materials will not be allowed. Keep in mind, time for repairs between trials is minimal and all repairs need to be done within allotted time. (9/1/10)

Q: In the handbook it says the blade assembly may be made from any non-metallic material. Does this include the part that the blades attach to?

A: Yes, the blade assembly also includes any blade attachment parts. (10/8/10)

Q: Can metallic screws be used?

A: Yes, metallic screws can be used for any part. Non-metallic screws can be difficult to obtain. This is the only exception to the non-metallic ruling. (10/8/10)

Q: Is aluminum considered a metallic material (ie. Aluminum roasting pan)?

A: Yes, aluminum is considered metallic so it cannot be used. (10/12/10)

*NOTE, metallic materials are allowed in other parts of the fan besides the blade assembly so aluminum can be used in OTHER parts of your windmill. (11/8/10)*

Q: If we have a shaft and bearings made out of metal that are not touching the blades can we use? The shaft is attached to the hub and neither the hub nor the blades are metallic.

A: We primarily want the blades and hub to be non-metallic and THE BLADES to not be from a commercial source. The shaft and bearings can be metal. Assuming that the bearings are what the shaft goes through to allow the blades to rotate freely. (10/29/10)

**CLARIFICATION:** The hub can be commercially made, but not metallic. The blades cannot be commercially made or metallic. The previous posting was misleading in the wording. (11/8/10)

Q: Can we use staples in the building of our blade assembly?

A: Yes staples will be considered a building material and can be used (like screws above). (10/29/10)

Q: Do you have any fan measurements?

A: Fan Enclosure = 52 cm X 52 cm and Fan Blade Diameter = ~48 cm (11/8/10)

### Fan Speed Measurement

Distance from fan = 75 cm

Meter used: Kestrel 1000 Wind Meter

Meter Height = 26 cm

Measurements are in average mph

Fan Speed	Meter Position Center	Off-center -12 cm
High	6.3 – 7.1	8.5 – 9.5
Low	3.6 – 4.7	4.9 – 5.3

Q: Do you have any pictures of the weights and/or measurements?

A: See below. Each of the weights are 100g to be added or removed as needed. (12/13/10)

*NOTE: For the North Region Design, the high school division used a different weight set, but after use, the configuration below will be used for both middle school and high school at ALL future competitions as it is a more standard set.*



Q: Does the device need to sit on the table? Or can it stand from the floor?

A: Per parameters, the device needs to fit within the device area stated and it needs to remain within the device area for testing. You are able to maneuver your device within the device area as it fits for testing, but if it only fits one way it must be tested that way. Any standing devices will be disqualified. (12/13/10)

Q: What parts can extend out of the device area? The picture has a comment that parts may extend past the device area.

A: Per parameters, the device blade assembly and base must fit within device testing area. The part(s) that are allowed to extend are any part(s) required to lift the given weight. (12/13/10)

Q: If your device is smaller than the testing area, can you move it closer to the fan?

A: See picture below for a picture of the testing area. You can move your device as you would like within the testing area as long as it remains within the measured area and the weight is still able to be lifted from the rear of the table as indicated in the parameters. (2/7/11)

