Name _____ Date _____ Class _____

Design Your Own Blades

Design

1. Sketch and describe the design of your blades (length, shape, number, materials, etc).

2. Explain why you designed your blades this way. Use data from "Which Blades Are Best" Lesson (if completed) to support your initial design.

Test Run 1

Test your blades 1 meter from the fan for 30 seconds and record your data below.

Power=Voltage × Amps

	VOLTAGE	AMPERAGE	POWER OUTPUT
High Wind Speed			
Low Wind Speed			

Modifications

3. What modifications could you make to your blade set to increase the power output?

4. Why do you think these blades would work better?

Test Run 2

Test your modified blades 1 meter from the fan for 30 seconds and record your data below.

	VOLTAGE	AMPERAGE	POWER OUTPUT
High Wind Speed			
Low Wind Speed			

How Can I Design Better Blades?

COMPETITION

NAME	NUMBER OF BLADES	MATERIALS	LENGTH (CM)	ADDITIONAL DESIGN FEATURES	POWER IN HIGH WIND	POWER IN LOW WIND	AVERAGE

Name _____ Date _____ Class _____

Questions

1. Describe the blades that seemed to perform the best. What characteristics did they have?

2. Why do you think they performed so well?

Name________________________ Date______________ Class_________

Voting form

Use these forms to vote on other students' blade designs.

QUALITY OF CONSTRUCTION	
1st	
2nd	
3rd	
INNOVATION	
1st	
2nd	
3rd	

QUALITY OF CONSTRUCTION	
1st	
2nd	
3rd	
INNOVATION	
1st	
2nd	
3rd	

QUALITY OF CONSTRUCTION	
1st	
2nd	
3rd	
INNOVATION	
1st	
2nd	
3rd	

QUALITY OF CONSTRUCTION	
1st	
2nd	
3rd	
INNOVATION	
1st	
2nd	
3rd	

QUALITY OF CONSTRUCTION	
1st	
2nd	
3rd	
INNOVATION	
1st	
2nd	
3rd	

QUALITY OF CONSTRUCTION	
1st	
2nd	
3rd	
INNOVATION	
1st	
2nd	
3rd	