Paper Airplane Engineering

Student worksheet

Name: _____

Team Name: _____

Date: _____

Directions: Answer the questions below to help define your engineering design problem.

1. Who is the "customer" for your paper airplane design?

2. What are the **criteria** for your design? Hint: what did the customer say they wanted?

3. How can you measure, or prove, that your plane meets the criteria?

4. What **constraints** are there on your design? Hint: what did your customer tell you "you only have…"?

Paper Airplane Engineering—Page 2

Name: _____

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Directions: Use this sheet to collect data when you test your paper airplanes.

5. Use this data table to record the results for each throw. Make sure you write down the units you used to measure distance.

Trial	Thrower	Plane Number	Distance (Unit _____)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

6. Your teacher will help you with this step.

   To calculate an average distance for all 12 trials:

   a. Add up all the numbers in the "Distance" column.

Write that sum here: Divide that number by 12 This equals the average distance

_____ ÷ 12 = _____

Paper Airplane Engineering—Page 3

Name: _____

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Directions: Answer these questions after you have completed the activity.

7. Why is it important to have criteria for this engineering problem?

8. Why was it important to know the constraints when working on this problem?

9. Did you have any trouble doing this project because of the criteria or constraints?

10. If we did this activity again, and you had more time or materials, what would you do differently?