Activity Sheet

Build your Hoop Plane:

1. Make a sketch of your design below. What will the distance be between the hoops? What will the diameter be for the front hoop? What will the diameter be for the rear hoop?

2. Fly your plane. Measure and record the distance it flew.

Distance = ___________________

3. What are some things you could change (variable) on your plane to improve its flight? List 3 below:

_________________  __________________  __________________

4. Choose a variable to test and see how it affects your plane's flight.

Variable:
Does the _________________________________ affect how far the plane travels?

Predict what you think will happen. Why do you think so?

________________________________________________________________
________________________________________________________________
________________________________________________________________

Test and record your data below:

<table>
<thead>
<tr>
<th>Write in your variable (with unit if needed)</th>
<th>Distance (meters)</th>
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Conclusion *(State what your test results show about this relationship)*:

________________________________________________________________
________________________________________________________________
________________________________________________________________

Competition:
Use your experimental results (and other peoples) to design a hoop plane that will fly the furthest.