

INNOVATORS: Paper Airplane Challenge

sampica.art

Design 1: <https://www.foldnfly.com/0.html#The-Basic>

Design 2: <https://www.foldnfly.com/1d.html#Basic-Dart>

Design 3: <https://www.foldnfly.com/53.html#Wilson>

1st design Team member: _____

Measure in feet

| 1st test | 2nd test | 3rd test | 4th test | 5th test | *Average: |
|----------|----------|----------|----------|----------|-----------|
| | | | | | |

2nd design Team member: _____

Measure in feet

| 1st test | 2nd test | 3rd test | 4th test | 5th test | *Average: |
|----------|----------|----------|----------|----------|-----------|
| | | | | | |

3rd design Team member: _____

Measure in feet

| 1st test | 2nd test | 3rd test | 4th test | 5th test | *Average: |
|----------|----------|----------|----------|----------|-----------|
| | | | | | |

*To get an average add together all tests and divide by the number of tests.

$$5' + 7.5' + 9' + 12' + 7.75' = 41.25$$

$$41.25 \div 5 = \underline{8.25}$$

INNOVATORS: Paper Airplane Challenge

sampica.art

NOW add drag to your plane 1:47 in the video. What do you think will happen?

1st design w/drag Team member: _____

Measure in feet

| 1st test | 2nd test | 3rd test | 4th test | 5th test | *Average: |
|----------|----------|----------|----------|----------|-----------|
| | | | | | |

2nd design w/drag Team member: _____

Measure in feet

| 1st test | 2nd test | 3rd test | 4th test | 5th test | *Average: |
|----------|----------|----------|----------|----------|-----------|
| | | | | | |

3rd design w/drag Team member: _____

Measure in feet

| 1st test | 2nd test | 3rd test | 4th test | 5th test | *Average: |
|----------|----------|----------|----------|----------|-----------|
| | | | | | |

INNOVATORS: Paper Airplane Challenge

sampica.art

This work can be answered as a group:

1. Use the data from your data table to create a bar graph.
 - a. You can plot your data by hand or you can plot your data online at [Create A Graph](#).(website below)
 - b. Label the x-axis (the horizontal axis) "Paper Plane" and label the y-axis (the vertical axis) "Average Flight Distance." You will have six bars, one for each of the planes without added drag, and one for each of the planes with added drag. Make each bar go up to the average distance that plane traveled.
2. What does your graph tell you? How did adding drag to your paper planes affect how far they flew?

Exit slip: discuss things that are working well with your group and things you need to work on. Come up with one response for each team and write it on a post in note to hand in.

<https://nces.ed.gov/nceskids/CreateAGraph/default.aspx>

Download the graph and have one group member send it to
csampica@maquoketaschools.org