**Classic Dart Paper Airplane Folding Instructions**

* diagram  Fold an 8 ½ in. x 11 in. sheet of paper in half.
* diagram  Fold the short edge of one side down to the first fold (ie produces a 45º angle). Do This for the other side too.
* diagram  Fold down the new fold you have created to the original fold you did in step 1. Repeat for the other side.
* diagram  Do step 3 again for both sides
* diagram Hold Centre and open wings out.
* Attach paper clips approximately ½ in. from the tip of the nose inside the center fold.

Airplane with no paper clips Airplane with one paper clip

|  |  |
| --- | --- |
| Trial | Distance in cm |
| 1 |  |
| 2 |  |
| 3 |  |
| Average |  |

|  |  |
| --- | --- |
| Trial | Distance in cm |
| 1 |  |
| 2 |  |
| 3 |  |
| Average |  |

Airplane with two paper clips Airplane with three paper clips

|  |  |
| --- | --- |
| Trial | Distance in cm |
| 1 |  |
| 2 |  |
| 3 |  |
| Average |  |

|  |  |
| --- | --- |
| Trial | Distance in cm |
| 1 |  |
| 2 |  |
| 3 |  |
| Average |  |

Questions:

1. In this lab, what is the independent variable?

2. In this lab, what is the dependent variable?

3. Graph your data using the number of paper clips on the x-axis and the average distance on the y-axis.

4. What is the average rate of change for your data?

5. Interpret the average rate of change in context of the problem.

6. What is the approximate y-intercept for your data?

7. Interpret the y-intercept in context of the problem?

8. How did the attachment of paper clips affect the distance traveled?