Papering the Skies with the Scientific Method

Purpose: Modify a control paper airplane to change its flight while practice using the Scientific Method.

Hypothesis: After creating your control paper airplane, decide with your group what single change you will make to it. Then make a prediction on which airplane will go further; the control airplane or your group's airplane.

Possible Modifications:

- add mass with up to 1 additional piece of paper or up to 3 paperclips
- change the wing folds or tail fold
- subtract mass

Modification 1
Independent Variable _____
Dependent Variable _____

If ____(IV)_____, then
_(DV)_____.

Modification 2
Independent Variable _____
Dependent Variable _____

If ____(IV)_____, then
_(DV)_____.

Modification 3 (if time)
Independent Variable _____
Dependent Variable _____

If ____(IV)_____, then
_(DV)_____.

Modification 4 (if time)
Independent Variable _____
Dependent Variable _____

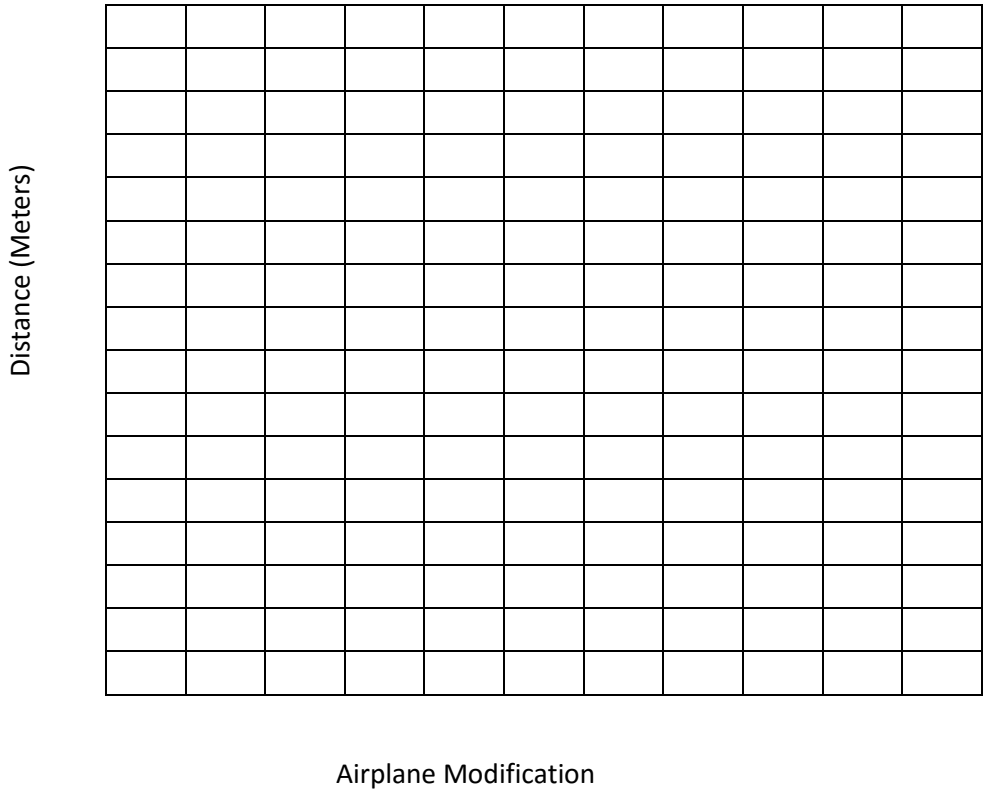
If ____(IV)_____, then
_(DV)_____.

Constants: _____

Experiment: Fly the control airplane and record its distance (feet). Your group is to then fly each of your airplanes using the same form and record the distances (feet).

Airplane Distance (meters)	Control	Mod 1	Mod 2	Mod 3 (if time)	Mod 4 (if time)
Trial 1					
Trial 2					
Trial 3					
Average					

Analyze your data: What does your data tell you?



Conclusion: Comparing your modifications, which one worked the best? How did you change that airplane? How did the change affect its flight? How did that compare to the control? Did your data for that modification support your hypothesis and how? Write your conclusion in COMPLETE SENTENCES.