

Instructions (shown before students start the test)

For this test you will need: paper, paper clips, linear measuring device, timer

Introduction (shown after students start the test)

You are to design and conduct an experiment which demonstrates the relationship between the mass of a paper airplane and its performance. The parts of the write-up are included in this exam. Answer thoroughly. You will have to email me your diagrams for your procedure at Kathy.mso.email@gmail.org. You may use any program you wish to create your graph and data tables. Please try to copy and paste them into scilympiad. If that does not work do not panic, simply email them to me. They are due at the end of the exam. BE SURE TO PUT YOUR SCHOOL NAME ON ANYTHING THAT YOU SEND ME. The parts of the write-up are included in this exam. Answer thoroughly. You will have to email me your diagrams for your procedure at Kathy.mso.email@gmail.org. You may create your graph and data tables in any program you wish. Try to copy and paste them into scilympiad. If this does not work, panic, simply email them to me. They are due at the end of the exam. BE SURE TO PUT YOUR SCHOOL NAME ON ANYTHING THAT YOU SEND ME.

GOOD LUCK

1. (2.00 pts) State the Problem:

2. (6.00 pts) Hypothesis:

3. (6.00 pts) Independent Variable

4. (4.00 pts) Dependent Variable:

5. (6.00 pts) Controlled Variables and Constant:

6. (4.00 pts) Materials:

7. (14.00 pts) Procedure:

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8. (6.00 pts) Qualitative Observations:

	Before	During	After
Procedure	a.	b.	c.
Results	N/A	d.	e.

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9. (10.00 pts) Quantitative Data--Data Tables

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10. (12.00 pts) Graph:

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11. (14.00 pts) Statistics: Central Tendency and Variation with sample calculations.

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12. (6.00 pts) Analysis and Interpretation of Data:

Statistics
a. Claim

b. Evidence

c. Reasoning

13. (6.00 pts) Analysis and Interpretation of Data Continued:

Outliers

a. Claim

b. Evidence

c. Reasoning

14. (6.00 pts) Analysis and Interpretation of Data Continued:

Data Trend

a. Claim

b. Evidence

c. Reasoning

15. (8.00 pts) Possible Experimental Errors

	Specific Error Identified	Specific Effect on Results
Error 1	a.	b.
Error 2	c.	d.

16. (8.00 pts) Conclusion:

a. Hypothesis restated:

Hypothesis is Evaluated
a. Claim (Acceptance or rejection of hypothesis)
b. Evidence
c. Reasoning

17. (6.00 pts) Recommendations for Future Experimentation:

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