

Paper Airplane Aerodynamics

Investigate the aerodynamic properties of paper airplane designs and determine which design flies the farthest or stays aloft the longest.

Hypothesis:

If paper airplane designs with larger wing spans and streamlined fuselage shapes are more aerodynamically efficient, they will fly farther and stay aloft longer than designs with smaller wings and bulkier fuselages.

Procedure:

1. Design different paper airplane models based on varying factors such as wing size, wing shape, fuselage length, and overall weight distribution. Ensure consistency in paper size and folding technique for each design.
2. Construct the paper airplanes according to your designs, following the instructions carefully to maintain consistency.
3. Find an open space free from obstacles and potential wind interference. Mark a starting point and throw each paper airplane with the same force and angle, aiming for a consistent launch.
4. Use a ruler or measuring tape to measure the distance flown by each paper airplane from the starting point. Record the distances for each design.
5. Use a stopwatch or timer to measure the time each paper airplane stays in the air. Record the duration of flight for each design.
6. Repeat the testing process multiple times for each paper airplane design to ensure the accuracy and reliability of results.
7. Analyze the data collected, comparing the distances flown and the flight durations for each paper airplane design.

Materials:

Various types of paper (e.g., printer paper, construction paper)
Ruler or measuring tape
Stopwatch or timer
Open indoor or outdoor space for testing
Notebook or data collection sheet

Measure and record the distance flown by each paper airplane design from the starting point.

Time each flight using a stopwatch or timer and record the flight duration for each design.

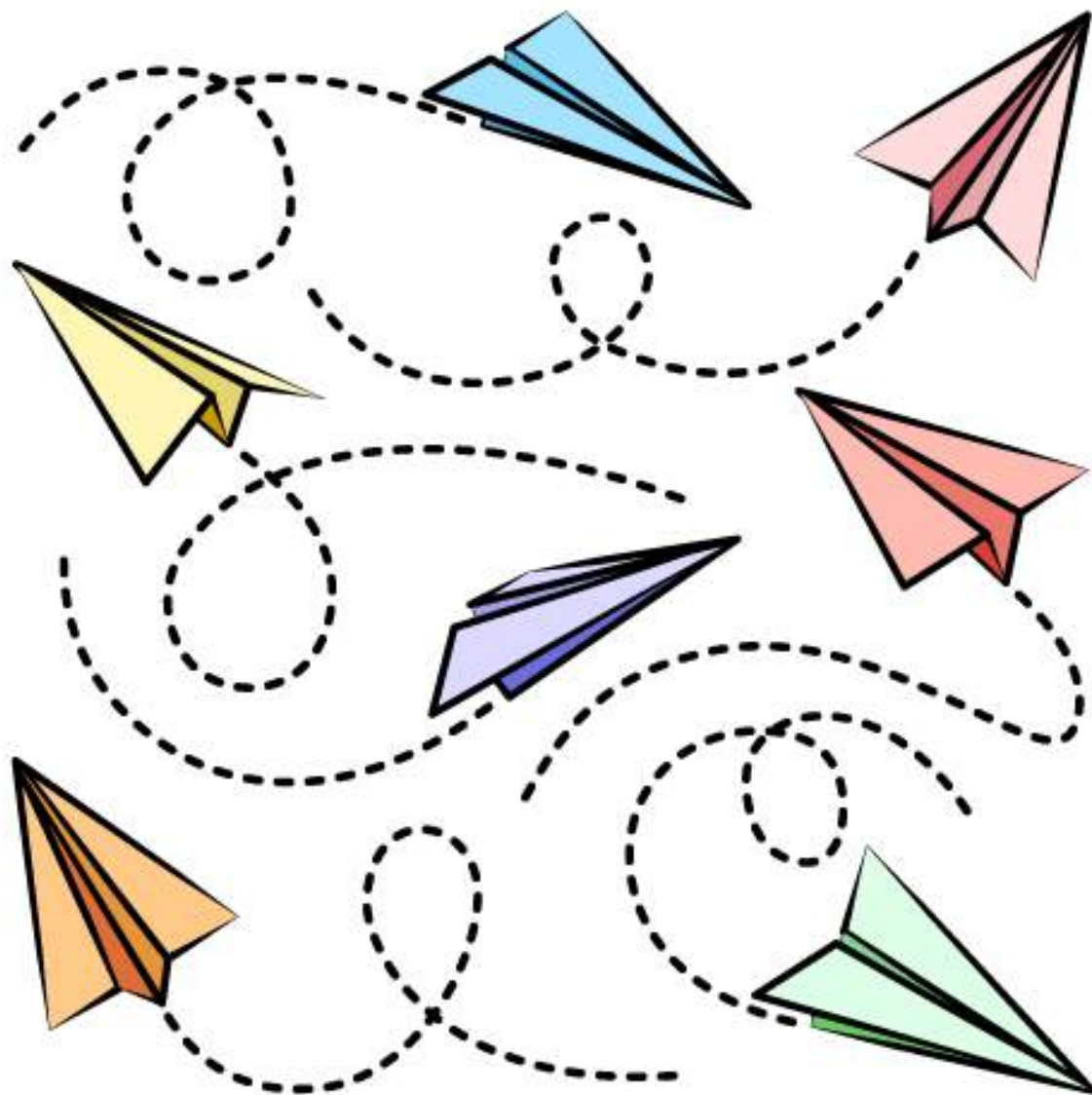
Calculate the average distance flown by each paper airplane design.

Determine the average duration of flight for each design.

Compare the average distances flown and flight durations for each paper airplane design.

MY SCIENCE EXPERIMENT

Paper Airplane Aerodynamics

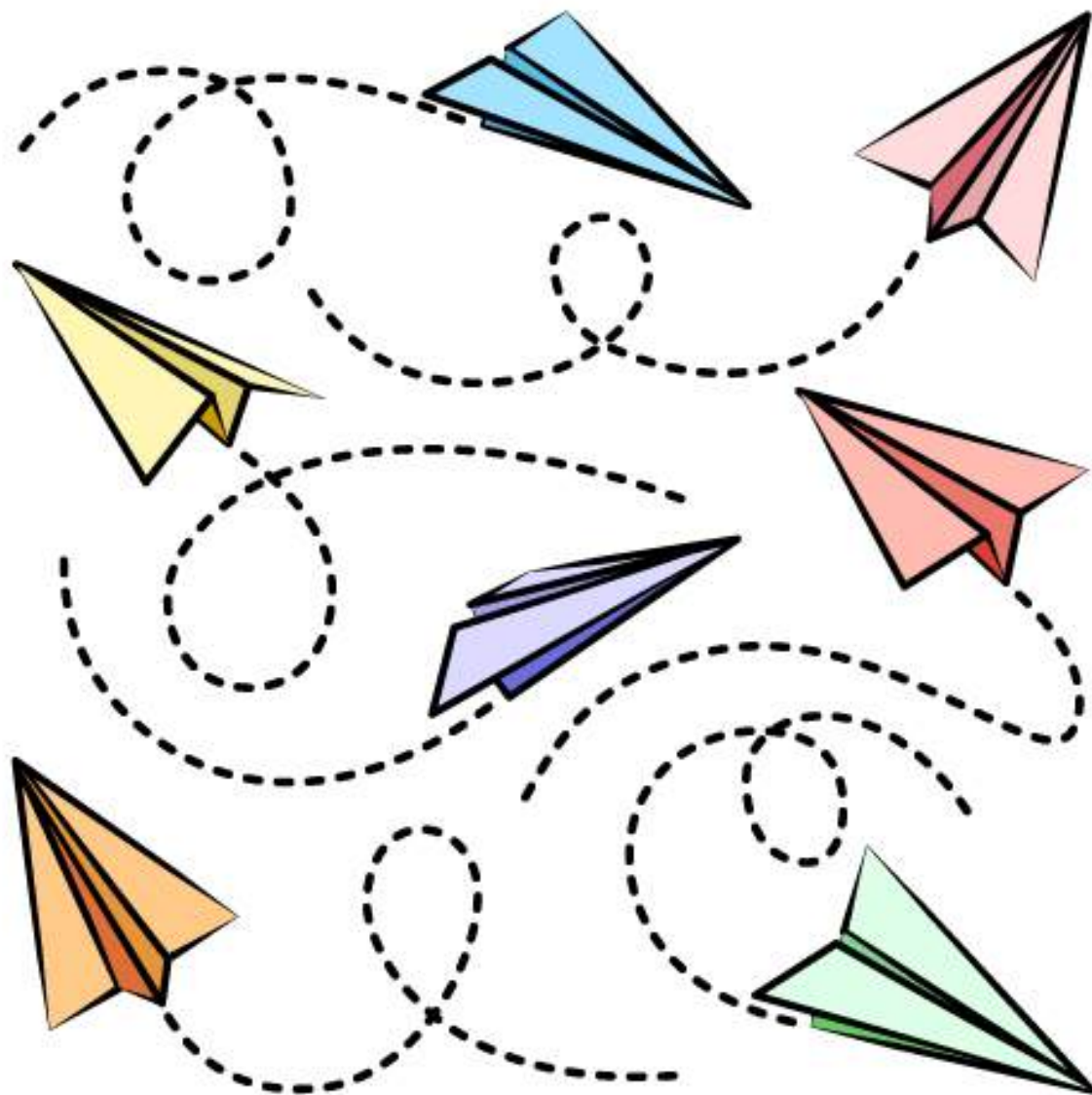


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Paper Airplane Aerodynamics

Objective:

Investigate the aerodynamic properties of paper airplane designs and determine which design flies the farthest or stays aloft the longest.

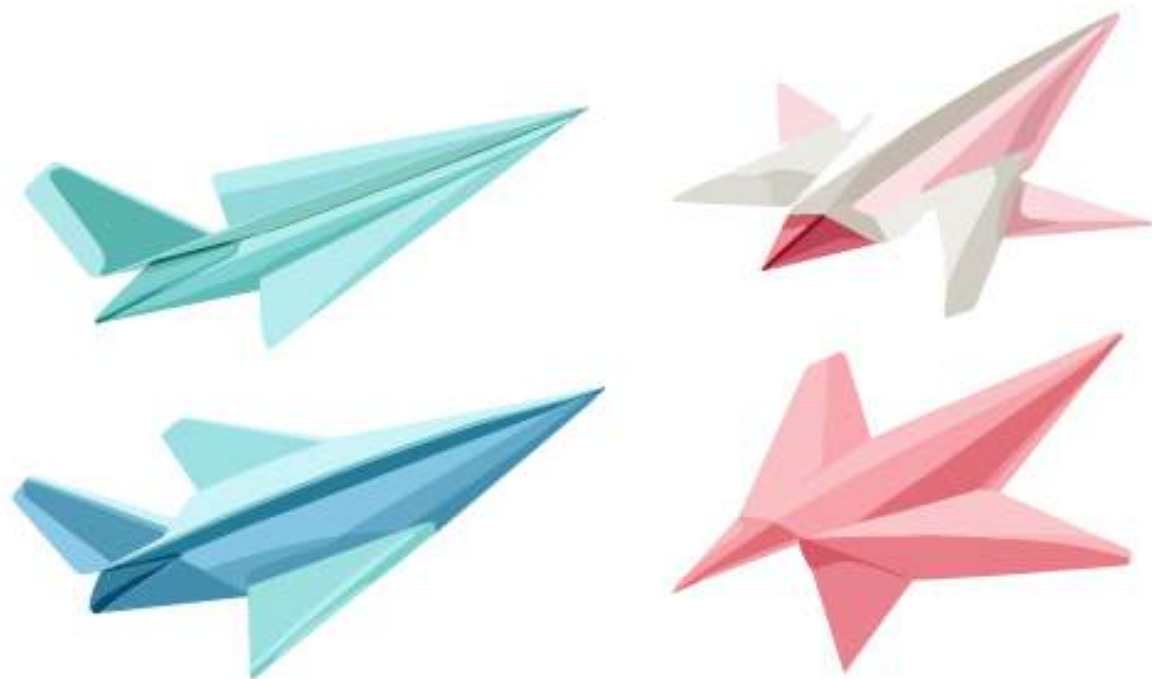


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Hypothesis:

If paper airplane designs with larger wing spans and streamlined fuselage shapes are more aerodynamically efficient, they will fly farther and stay aloft longer than designs with smaller wings and bulkier fuselages.



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Materials:

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MY SCIENCE EXPERIMENT

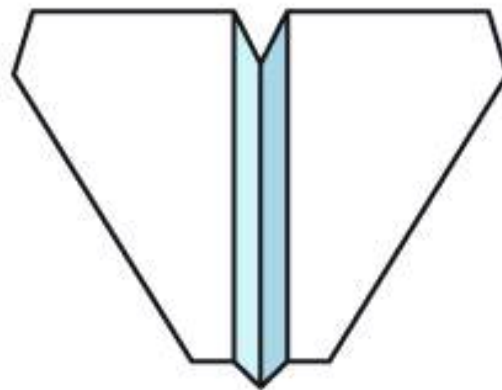
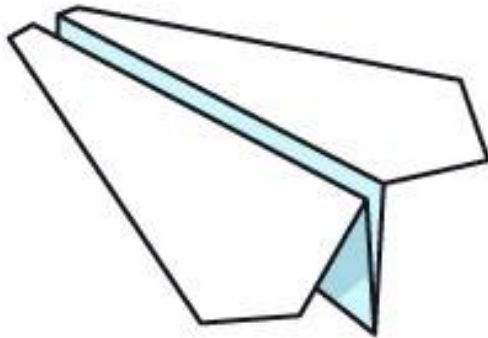
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Preparation:

Draw different paper airplane models based on varying factors such as wing size, wing shape, fuselage length, and overall weight distribution.



Construct the paper airplanes according to your designs, following the instructions carefully to maintain consistency.



MY SCIENCE EXPERIMENT

Paper Airplane Aerodynamics

Preparation:

Find an open space free from obstacles and potential wind interference. Mark a starting point and throw each paper airplane with the same force and angle, aiming for a consistent launch.

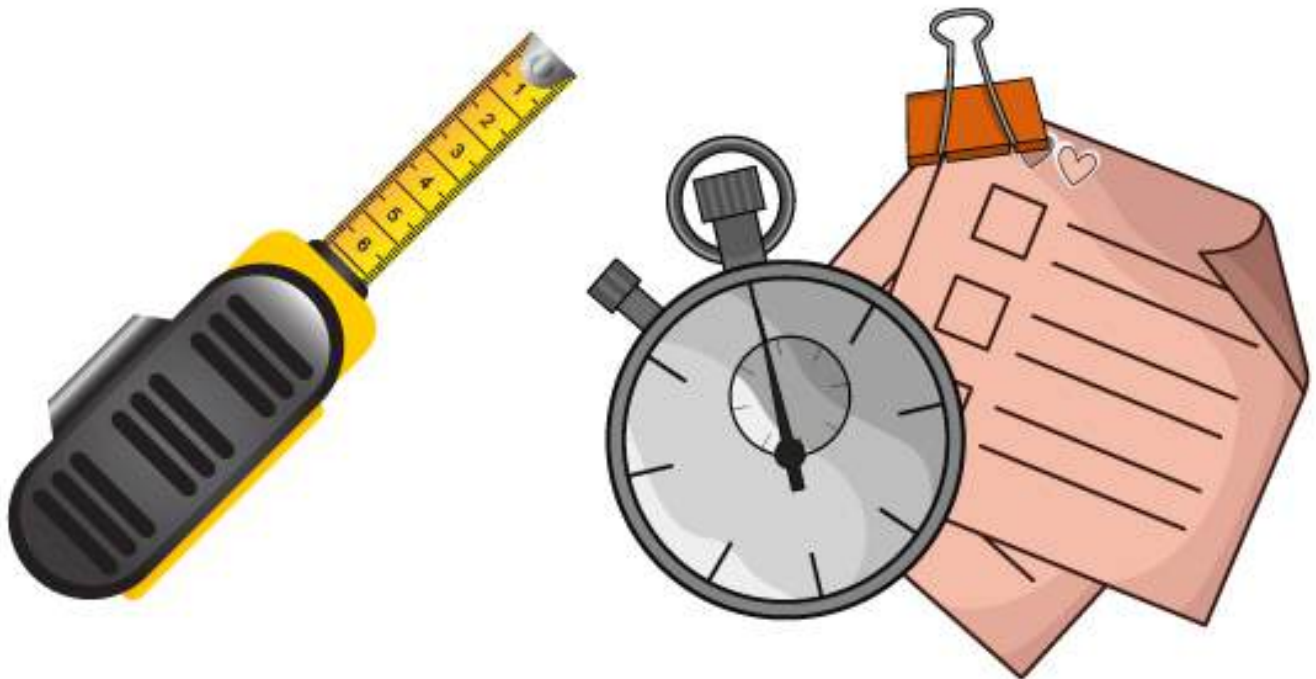


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Paper Airplane Aerodynamics

Preparation:

Use a ruler or measuring tape to measure the distance flown by each paper airplane from the starting point. Record the distances for each design.



Use a stopwatch or timer to measure the time each paper airplane stays in the air. Record the duration of flight for each design.

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Paper Airplane Aerodynamics

Preparation:

Repeat the testing process multiple times for each airplane design to ensure accuracy of results.

Analyze the data collected, comparing the distances flown and the flight durations for each paper airplane design.

