

Wedge: Cutting Through the Air



Materials

- *Simple Machines* Video:
<https://bit.ly/littlesteamersvirtual>
- 2 pieces of paper
- *Airplane Folding Instructional Sheet**
- Measuring Tape (optional)

*Note: The links below may also be used to view instructional videos on how to fold both types of paper airplanes:

Sharp Nose –

<https://www.youtube.com/watch?v=7Cy3IRJGiR4&t=1s>

Flat Nose -

<https://www.youtube.com/watch?v=W3dgPWaoOMs>

Learning Objectives

- I can describe and compare the attributes of two paper airplanes.
- I can determine which paper airplane flew the farthest and explain why I think this happened.
- I can identify examples of simple machines in the world around me.

Skills

-  Language Development
-  Creative Play
-  Scientific Inquiry
-  Math Skills

Exploration

Begin this activity by explaining to students that today, they will be investigating the **wedge**, which is one type of simple machine. View the *Simple Machines* video, which highlights the wedge at 06:24. As students watch the video, discuss the shape of the wedge (ax tip), how the child uses the hammer to drive it into the wood, and what happens to the wood.

- **What do you notice about the wedge? What shape is it?**
- **How is the boy using the wedge? What is he doing with the hammer?**
- **What is the wedge doing to the wood?**
- **What do you think a wedge is used for?**



Then, explain to students that they will explore a different type of wedge that is found on a paper airplane. Using the *Airplane Folding Instructional Sheet* or recommended videos, construct a sharp nose airplane and flat nose airplane. Before flying the planes, ask students to **describe** both airplanes and **predict** how far they will travel.



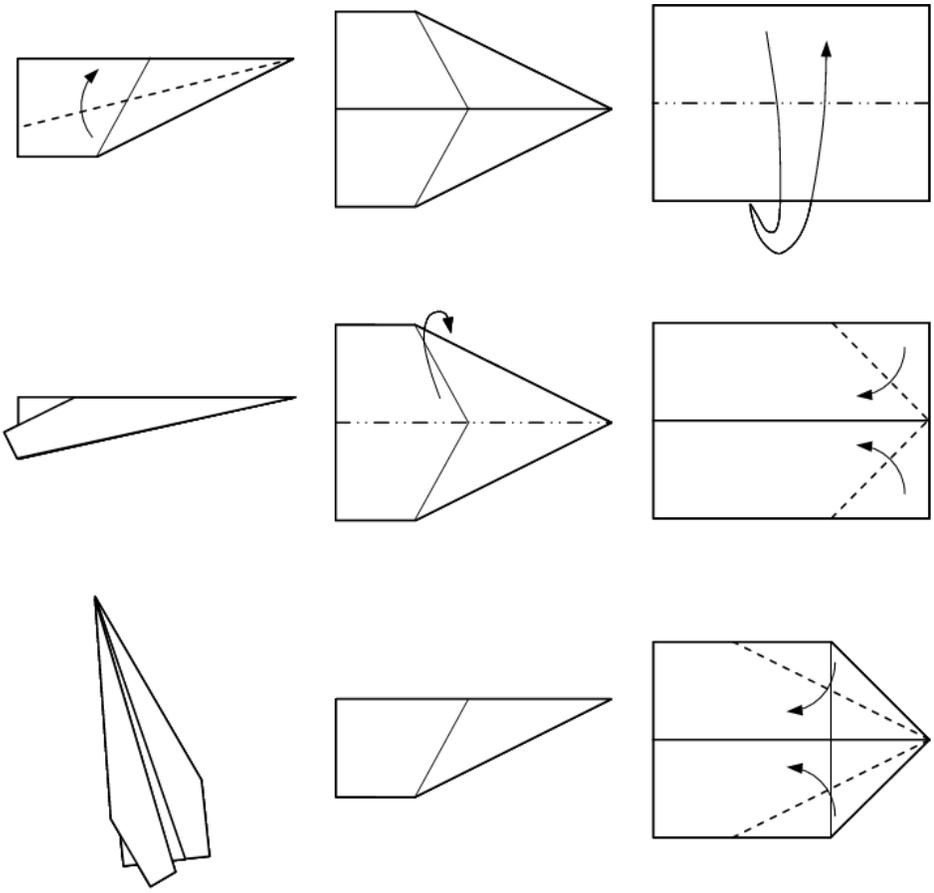
As students fly their paper airplanes, encourage them to make observations and measure the distance each plane travels:

- **What do you notice about how the sharp nose plane flies? The flat nose plane?**
- **Which plane flies the farthest? How do you know?**
- **Why do you think this plane went the farthest?**
- **How is the nose of the plane similar to the wedge that the boy used in the video?**
- **A wedge cuts through material. What does the airplane cut through when it is thrown?**

Airplane Folding Instructional Sheet



Sharp Nose Airplane



Flat Nose Airplane

