### Reading Comprehension Worksheet: Compare and Contrast

Read the short story. Then answer each question.

# How Airplanes Fly

Jordan loved watching airplanes zoom through the sky. He always wondered—how do such heavy machines stay in the air?

Airplanes fly because of a force called **lift**. The shape of an airplane's wings helps air move faster over the top and slower underneath. This difference in air pressure lifts the plane into the sky.

Engines provide **thrust**, which pushes the plane forward. As the plane moves faster, more air flows over the wings, increasing lift. At the same time, **drag** pulls against the plane. Pilots must balance all four forces—lift, thrust, drag, and weight—to fly safely.

Modern airplanes have computers and trained pilots that help keep everything working together. Airplanes travel long distances and can carry people or packages across the world.

### How Helicopters Fly

Ava took a helicopter tour on her vacation. Unlike airplanes, helicopters don't need long runways—they take off straight into the air. But how do they do that?

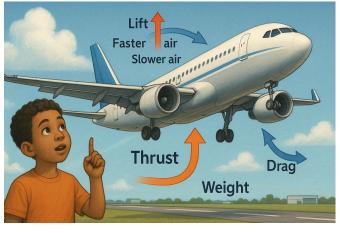
Helicopters have large spinning blades on top called **rotors**. As the rotors spin, they push air downward. This creates lift, allowing the helicopter to rise into the air.

Instead of wings, helicopters use **rotor blades** to move up, down, forward, or backward. Pilots control the speed and angle of the rotors to steer in different directions.

Helicopters are great for reaching places airplanes can't go. They are used for search-and-rescue, flying over traffic, and landing in tight spaces like hospital rooftops.









## How Airplanes Fly & How Helicopters Fly

1. What is one thing both airplanes and helicopters use to		2. How are airplanes and helicopters different?	
fly? A.	Wheels	Α.	Airplanes use rotors; helicopters use wings.
Β.	Wings	B.	Airplanes land on roofs; helicopters land on runways.
С.	Lift		
D.	Rockets	С.	Helicopters use rotors; airplanes use wings and engines.
		D.	Helicopters fly slower and lower than airplanes.

### 3. Fill in the blank:

Helicopters use spinning \_\_\_\_\_\_ to lift off the ground.

4. What are two ways airplanes and helicopters are alike and two ways they are different?

5. After reading both texts, which one do you think is better for quick rescue missions? Why?



Guide Reading Level: M Lexile Level: 425L-575L Grade Level: 2nd Grade, End of the Year

#### Introducing the Text

"Today we'll explore two flying machines—**airplanes** and **helicopters**. Even though they both fly, they work in different ways. As we read, we'll compare the important points in each text to better understand how these machines lift off, move, and land."

Vocabulary: lift, thrust, drag, rotor, pilot

#### **Discussion Questions Before Reading**

- 1. Have you ever flown in a helicopter or airplane?
- 2. What do you think helps a machine lift off the ground?
- 3. Why do we have different kinds of flying machines?

#### **Discussion Questions During Reading**

- 1. What role do wings play for airplanes?
- 2. What does a rotor do on a helicopter?
- 3. What kinds of places can helicopters go that airplanes cannot?

#### **Discussion Questions After Reading**

- 1. What are the key differences between how airplanes and helicopters fly?
- 2. What are some jobs each type of machine is best for?
- 3. Why do you think the author wrote two separate texts instead of combining them into one?

#### Activity Idea

Have students **design their own flying machine** using paper, straws, or recycled materials. Then they write a paragraph comparing their machine to either an airplane or helicopter from the texts, explaining how their invention is the same and how it's different.

