

Focus Question:

What is the key to flight? How does it make flying possible?

Book Summary

Text Type: Nonfiction/Informational

Buckle up: you are about to take off on an exciting journey! *Mysteries of Flight* gives students a history lesson on the evolution of airplanes and the people who first experimented with them. From hot air balloons to modern-day aircraft, airplanes have come a long way! Readers will discover the most fundamental element that makes a plane fly, the parts of an airplane, and how pilots control planes. Detailed photographs and graphics enhance the text. This book can be used to teach about cause-and-effect relationships as well as identifying possessive nouns.



Lesson Essentials

Instructional Focus

- ☐ Ask and answer questions to understand text
- ☐ Identify cause-and-effect relationships
- ☐ Understand and use graphics to clarify text
- ☐ Recognize and use possessive nouns
- ☐ Place words in alphabetical order

Materials

- ☐ Book: *Mysteries of Flight* (copy for each student)
- ☐ Cause and effect, possessive nouns, alphabetical order worksheets
- ☐ Discussion cards
- ☐ Book quiz
- ☐ Retelling rubric

Vocabulary

Boldface vocabulary words also appear in a pre-made lesson for this title on VocabularyA-Z.com.

• Words to Know

Story critical: *ailerons* (n.), *aviation* (n.), *elevators* (n.), *lift* (n.), *rudder* (n.), *speculation* (n.)

- **Academic vocabulary:** *complex* (adj.), *control* (v.), *create* (v.), *effect* (n.), *generate* (v.), *section* (n.)

Guiding the Reading

Before Reading

Build Background

- Place on the board a picture of an airplane. Ask students what they know about planes. Ask students if they have ever flown on a plane. Discuss pros and cons of flying.
- Show students a picture of the Wright brothers. Have students discuss who they think the brothers are and how they contributed to human flight.

Introduce the Book

- Give students their copy of *Mysteries of Flight*. Guide them to the front and back covers and read the title. Have students discuss what they see on the cover. Encourage them to offer ideas as to what type of book it is (genre, text type, and so on) and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, author's name).
- Preview the table of contents on page 3. Remind students that the table of contents provides an overview of the book. Ask students what they expect to read about in the book, on the basis of what they see in the table of contents.

Introduce the Reading Strategy:

Ask and answer questions

Explain to students that engaged readers ask and answer questions while they are reading and one way to organize this information is to use a KWLS chart. Draw a KWLS chart on the board. Have students look at the cover of the book and complete the *K* section with information they know about airplanes. Invite students to preview the photographs in the book with a partner to create questions they have about airplanes. Have students record this information in the *W* section of the KWLS chart. Invite volunteers to share their questions with the class. Point out that, as they read, they should look for the answers to these questions as well as create new questions to add to the chart.

Guiding the Reading (cont.)

Introduce the Comprehension Skill:

Cause and effect

- Explain to students that a cause is an event that makes something happen and an effect is an event that happens because of, or as a result of, the cause. Create a T-chart on the board and label the two sides *cause* and *effect*. Write the following sentence in the cause column: *I ran too fast*.
- Ask students to think about an effect of running too fast. Write these ideas in the effect column. Discuss with students that a cause can have more than one effect. Explain to students that, as they read, they will look for cause-and-effect relationships.

Vocabulary

Have students turn to the “Words to Know” box on the copyright page. Discuss each word with students. Then, have students turn to the glossary on page 16. Explain that the glossary provides definitions for the vocabulary words in the book. Point out the use of each content word and academic vocabulary word in the book, and then use each word in a different model sentence. Have students work in groups to create posters for these words. Have them include on each poster the word and its part of speech, the definition, the word in an example sentence, and a picture illustrating the meaning of the word.

Set the Purpose

- Have students read to discover how airplanes work. Write the Focus Question on the board. Invite students to look for evidence in the book to support their answer to the question.
- Have students make a small question mark in their book beside any word they do not understand or cannot pronounce. These can be addressed in a future discussion.

During Reading

Text-Dependent Questions

As students read the book, monitor their understanding with the following questions. Encourage students to support their answers by citing evidence from the book.

- *What was the first powered aircraft? (level 1)* page 5
- *How do you think Amelia Earhart felt when she flew solo across the Atlantic Ocean? (level 2)* page 6
- *Why does a plane need wheels? (level 2)* page 9
- *How does a pilot control an airplane? (level 2)* multiple pages
- *If the design of an airplane’s wings were to change, would an airplane still fly? (level 3)* multiple pages

- *Why did the author write this book about airplanes? (level 3)* multiple pages

Text Features: Graphics

Explain that graphics in texts can include charts, graphs, and diagrams. Discuss how they are included to help the reader better understand the text. Have students review the graphics throughout the book and discuss how the visual display of information helps to clarify the text. Ask students: How do the image and labels of the airplane’s parts on page 9 help the reader understand the text? On page 13, what is the benefit of including the airflow graphic? Have students share their answers with the class.

Skill Review

- Have students refer back to the KWLS chart on the board. Ask students to review their questions recorded prior to reading the book. Have students think about any questions that were answered and record this information in the *L* section of the chart. Ask students to share other information they learned with the class. Have students record new questions in the *W* section of the chart. Point out that effective readers continually create new questions as they are reading in order to stay engaged with the text.
- Return to the cause-and-effect T-chart on the board. Remind students that a cause is an event that makes something happen and an effect is the result of a cause. Ask students to turn to page 11 of the book. Have students read to find the cause-and-effect relationship.
- Model evaluating cause-and-effect relationships. **Think-aloud:** *On page 11, I read that turning the column, which is like a steering wheel, right or left moves the ailerons on the wings up or down, which causes the plane to roll from sided to side. There are two cause-and-effect relationships. The first cause is turning the column; the effect is the ailerons move up or down. The second cause is the ailerons go up or down; the effect is the plane rolls from side to side.*
- Model how to complete the **cause-and-effect worksheet**. Then, have students discuss their cause-and-effect worksheets with a partner and agree on the relationships.

After Reading

Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

Guiding the Reading (cont.)

Skill Review

Graphic Organizer: Cause and effect

Review the cause-and-effect worksheet that students completed. Have students share their work with a partner. Invite volunteers to share with the rest of the class either a cause or an effect. Ask another volunteer to share the cause or effect that connects to the given one.

Comprehension Extension

Discussion cards covering comprehension skills and strategies not explicitly taught with the book are provided to be used for extension activities.

Response to Focus Question

Have students cite specific evidence from the book to answer the Focus Question. (*Answers will vary but should include that the key to flight is the airplane's wings. All wings are constructed the same way—curved on top and flat on the bottom. The shape of the wings allows air to move in a way that causes the plane to leave the ground and fly.*)

Comprehension Checks

- **Book quiz**
- **Retelling rubric**

Book Extension Activities

Build Skills

Grammar and Mechanics: Possessive nouns

- Write the following sentence on the board: *An airplane's engine moves the plane forward.* Read the sentence aloud. Remind students that words that name people, places, and things are called **nouns**. Have students point to the word *engine*. Ask students to identify with a partner which object in the sentence the engine belongs (*an airplane*).
- Remind students that the word *airplane's* is a possessive noun. Have students review with a partner the use of possessive nouns. Reinforce that a possessive noun is a word that shows ownership, or possession. Remind students that a possessive noun is formed by adding an 's to the end of the word.
- Hold up your book. Ask them to whom the book belongs (*you, the teacher*). On the board, write the phrase *the book that belongs to the teacher*. Beneath that, write the phrase *the teacher's book*. Ask students to give a thumbs-up signal if the two phrases mean the same thing. Review with students that to create a possessive noun you add an 's to the noun that owns the object.

- Explain that there are exceptions to the rule of adding 's to the end of the word to form a possessive noun. Have students turn to page 8. Ask them to find and point to the possessive word on that page (*brothers'*). Have students share with a partner how they know it is a possessive noun and what belongs to the brothers. Explain to students that if the noun is plural and ends in -s, we add only an apostrophe to the end of the word.
- **Check for understanding:** Write a list of nouns on the board, some singular and some plural. Have students work with a partner to make the words possessive nouns by adding 's or an apostrophe to the end and then to think of an object that the possessive noun would own. Invite volunteers to share their phrases with the class.
- **Independent practice:** Introduce, explain, and have students complete the **possessive nouns worksheet**. If time allows, discuss their answers.

Word Work: Alphabetical order

- Review or explain the process of putting a list of words into alphabetical order, including words that begin with the same letter.
- Write the following words on a separate piece of paper and display them on the board: *experiment, flight, engine, pressure*. Discuss how to place words in alphabetical order, reminding students to look at the first letter in each word. Explain that if two words begin with the same letter students will need to look at the second letter or even the third letter to determine the correct order.
- **Check for understanding:** Write the following words on the board: *compartments, luggage, aircraft, yawing, discovery, and flight*. Have students work independently to place the words in alphabetical order. Then, have students share their answers with a partner.
- **Independent practice:** Introduce, explain, and have students complete the **alphabetical order worksheet**. If time allows, discuss their answers.

Connections

- See the back of the book for cross-curricular extension ideas.