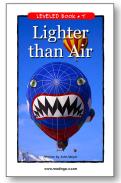




## Lesson Plan

# **Lighter than Air**



#### About the Book

Text Type: Nonfiction/Informational Page Count: 26 Word Count: 1,875

#### **Book Summary**

Did you know that long before the Wright Brothers made flight history on December 17, 1903, a duck, a rooster, and a sheep were the first aircraft passengers? This is one of the interesting facts about air travel contained in *Lighter Than Air*. Readers learn about the history of hot air balloons and dirigibles, including the ill-fated *Hindenburg*, as well as present-day uses for zeppelins and blimps. Authentic photographs illustrate the text.

## About the Lesson

## **Targeted Reading Strategy**

• Connect to prior knowledge

## **Objectives**

- Use the reading strategy of connecting to prior knowledge
- Sequence events in informational text
- Understand and recognize prepositional phrases
- Understand and use compound words

#### **Materials**

Green text indicates resources available on the website

- Book—Lighter than Air (copy for each student)
- Chalkboard or dry erase board
- Sequence/time line, prepositions, compound words worksheets
- Discussion cards

Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting book on interactive whiteboard or completed with paper and pencil if books are reused.)

#### Vocabulary

Content words:

Story critical: airship (n.), blimps (n.), density (n.), dirigible (n.), gas (n.), zeppelin (n.)

Enrichment: aircraft (n.), atmosphere (n.), demonstration (n.), experiment (n.), molecule (n.), technical (adj.)

# **Before Reading**

#### **Build Background**

• Ask students to tell about their experience with flying or about airplanes they have seen. Ask students if they can think of other ways people travel in the air. Ask if they have ever seen or flown in a blimp or hot air balloon. Have students share any personal experiences.

# Preview the Book Introduce the Book

• Give students a copy of the book. Have them preview the front and back covers and read the title. Have students discuss what they see on the covers and offer ideas as to what kind of book this is and what it might be about.



# **Lighter than Air**

- Direct students to the table of contents on page 3. Remind students that the table of contents provides an overview of what the book is about. Each section title provides an idea of what they will read about in the book. Ask students what they know about any of the topics listed in the table of contents.
- Review or explain that this book is nonfiction. Each section contains facts and details about things that are lighter than air. Have students find the section title that follows "The Great Graf." Ask them to read the title "Flying Aircraft Carriers". Explain that this section tells about how the military used airships.

## Introduce the Reading Strategy: Connect to prior knowledge

- Explain that having prior knowledge about a topic and making a connection with what they already know while reading will help students understand and remember the information in the book. Model how to use prior knowledge as you preview the book.

  Think-aloud: I had a friend who rode in a hot air balloon, and he told me about the experience. He said it was very quiet and peaceful up in the air and that the view from the balloon was amazing. Knowing about my friend's experience might help me relate to some of the information in the book. (Tailor comments to fit personal situation.)
- Have students preview the rest of the book, looking at photos, illustrations, and captions. Point out the information in the box on page 25. Explain that it provides additional information about the topic.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

#### **Introduce the Vocabulary**

- Remind students of the strategies they can use to sound out words they don't know. For example, they can use what they know about letter and sound correspondence to figure out the word. They can look for words within words and prefixes and suffixes. They can use context clues within a sentence to work out meanings of unfamiliar words.
- Model how to apply word-attack strategies. Direct students to find the bold word *dirigible* on page 10. Model how they can use context clues to figure out the meaning of the unfamiliar word. Explain that the meaning of the unfamiliar word comes before it in the sentence (...think of ways to steer them). Point out the comma followed by the word *or*. Explain that the meaning of the unfamiliar word, or an example, usually follows. Have students confirm the meaning by looking in the glossary on page 26.
- Write the content vocabulary on the board. Discuss the pronunciation and meaning of each word. Ask students to use each word in a sentence.
- Have students turn to the glossary. Have them read the glossary words and their definitions aloud. Next, have students turn to each page and read the glossary word in the sentence. Use context clues in the surrounding sentences to work out unfamiliar vocabulary words, as necessary.
- Remind students that they should check whether words make sense by rereading the sentence.

#### **Set the Purpose**

• Tell students to think of what they already know about air travel as they read the book.

# **During Reading**

#### **Student Reading**

• Guide the reading: Have students read to the end of page 13. Tell them to underline the words or phrases in the book that tell a type of balloon or type of air travel. If they finish before everyone else, they can go back and reread.





# Lighter than Air

- When they have finished reading, have students tell the information they underlined. Ask what happened to the balloon flown by the Frenchmen in 1783. Ask why they think the farmers were so afraid of the balloon. Have students tell uses for balloons other than travel (for sport, to study and predict weather, to study atmosphere and objects in space, and so on.). Model making connections using prior knowledge.
  - Think-aloud: I remember, in 1999, when the balloonists Bertran Piccard and Brian Jones were successful in going around the world. It seemed like everyone was cheering them on to success. The men had a television camera inside the balloon, so they were able to tell the world how the flight was progressing. It was thrilling, yet kind of scary because the men were very, very tired by the time they landed. (Tailor comments to fit personal situation.)
- Have students think about their knowledge of air travel as they read the remainder of the book.
  - Have students make a question mark in their book beside any word they do not understand or cannot pronounce. Encourage them to use the strategies they have learned to read each word and figure out its meaning.

# 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.

# Reflect on the Reading Strategy

• Discuss how making connections with topics in the text that students already know something about keeps them actively involved in the reading process and helps them to remember what they read.

# Teach the Comprehension Skill: Sequence events

- Discussion: Ask students to tell what the author's purpose was for writing the book. Ask what they learned about air travel that they didn't already know. Ask: Who was the most important person in lighter-than-air travel, and why was he important? Write on the board: In 1783, Joseph Montgolfier discovered that heated air would make a balloon rise. Tell students that this was the beginning of aircraft history.
- Introduce and model: Review or explain that many writers present the events in a story in the order in which they happened. It is up to the reader to look for signal words, such as today, then, first, and after, or time references, such as dates, to help them put the events in the order in which they occurred. Ask students to think of a recent story they've read in which the events were written in order. If necessary, prompt with a familiar story, such as The Three Little Pigs. Write the following on the board: 1. It was time for the three pigs to build their own homes; 2. The first pig built his home of straw; 3. The second pig built his home of sticks; 4. The third pig built his home of bricks; 5. The pig-eating wolf came along and blew down the house of straw. Ask students to orally finish the sequence of this story.
- Check for understanding: The author tells about the history of balloons and dirigibles from the beginning to present day. Point to the board and say: We wrote: In 1783, Joseph Montgolfier discovered that heated air would make a balloon rise. We know that next, the Montgolfier Balloon was the first to travel in the air with passengers. Who can tell what happened next? Remind students that dates can provide sequence clues. (In 1783, two Frenchmen traveled more than five miles in a balloon.)
- Independent practice: Give students the sequence/time line worksheet. Explain that a time line is a way to show events in the order in which they happened. Together, review the first event and then have students put the next sentence on the time line. Have students complete the worksheet. Discuss their responses.





# Lighter than Air

**Extend the discussion:** Have students use the inside cover of their book to write about whether they would or would not like to travel in a hot air balloon or dirigible. Have students explain their reasoning.

#### **Build Skills**

#### **Grammar and Mechanics: Prepositions and prepositional phrases**

- Have students find the third sentence on page 4. Read the sentence with students and ask them to tell *where* the sentence says that they may have seen a blimp (over a stadium). Write the sentence on the board and circle the word *over*. (You may have even seen a blimp flying over a stadium.) Explain that this word is a *preposition* and that prepositions are words that show how a noun or pronoun is related to another word in the sentence.
- Tell students that a *prepositional phrase* begins with a preposition and ends with a noun or pronoun. Ask students to tell what is over what. (blimp/stadium) Draw a curved line with arrows at each end showing that these two words in the sentence are related. Reinforce that the preposition *over* shows the relationship between the two.
- Tell students that there are several prepositions, but they are only going to be looking at the following eight: with, about, for, on, in, by, over, under. Write these on the board.
- Check for understanding: Have students turn to the second complete sentence on page 6. Ask them to find the preposition (in) the prepositional phrase (in history), and tell what two nouns are related by it (passengers/history).
- Give students the prepositions worksheet and explain the example. Have students complete the worksheet. Discuss their responses.
  - Have students underline the prepositional phrases on a page or in a section of the book.

#### **Word Work: Compound words**

- Write the word *airship* on the board. Review or explain that this is a *compound word*; a compound word is made by joining one word (*air*) with another word (*ship*). Tell students that the new word combines the meanings of the two words that formed it. Use the word in a sentence: *Count von Zeppelin built the first rigid airship*.
- Direct students to page 6. Ask them to find the compound word in the second complete sentence that describes the first passengers in history (aircraft). Ask them to identify the two words that have been joined to make the word. Write air + craft on the board.
  - Check for understanding: Have students use their book to find the compound words, aside from airship and aircraft. Tell them to circle each compound word they find. Then have students write the first ten words they find on the compound words worksheet. (Tell them they are not to write a word more than once, even if they find it again in the story.) (Note: Hyphenated compound words are not included in this lesson)

# **Build Fluency**

#### **Independent Reading**

• Allow students to read their book independently. Additionally, allow partners to take turns reading parts of the book to each other.

#### **Home Connection**

• Give students their book to take home to read with parents, caregivers, siblings, or friends.





# Lighter than Air

# Extend the Reading

# **Writing Connection**

Reread the bottom of page 16 and the top of page 17 with students. Tell them to imagine that they are a passenger aboard the *Graf Zeppelin* on a flight across the ocean. Have students create characters who have a problem during the flight and write a story that explains how they solved their problem. Have students title their stories and share them with the group.

#### **Social Studies Connection**

Provide print and Internet resources for students to research famous inventors, such as Joseph Montgolfier, Count von Zeppelin, Henri Giffard, or Rufus Porter. Have students prepare an oral report, including an illustration of the invention, and present it to the group.

#### **Skill Review**

Discussion cards covering comprehension skills and strategies not explicitly taught with the book are provided as an extension activity. The following is a list of some ways these cards can be used with students:

- Use as discussion starters for literature circles.
- Have students choose one or more cards and write a response, either as an essay or as a journal entry.
- Distribute before reading the book and have students use one of the questions as a purpose for reading.
- Cut apart and use the cards as game cards with a board game.
- Conduct a class discussion as a review before the book quiz.

#### **Assessment**

#### Monitor students to determine if they can:

- use their prior knowledge to better understand the text
- sequence events, using dates, on a time line
- recognize prepositions and prepositional phrases
- understand, identify, and use compound words in a sentence

## **Comprehension Checks**

- Book Quiz
- Retelling Rubric