



# AN ILLUSTRATED GUIDE TO FLYING

WORKBOOK

BARRY SCHIFF

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*An Illustrated Guide to Flying: Workbook*  
by Barry Schiff

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## PREFACE

**THIS WORKBOOK** is designed to be used as a companion to *An Illustrated Guide to Flying*, by Barry Schiff. An exciting introduction to flying for aspiring pilots of all ages, that book reveals the mysteries of flight and explains how pilots deal with their aircraft and the elements through which they fly. This *Workbook* presents review questions for readers to solidify their knowledge of the principles and science covered in the book, including basic flight maneuvers, aircraft engines and flight instruments, navigation, weather, types of aircraft, traffic control, flight rules, and more.

This workbook includes a variety of free-response, multiple choice, and true/false questions. Answers are included in a separate section in the back of the book.

# CHAPTER 1

## AVIATION HISTORY

### REVIEW QUESTIONS

1. Who was Charles "Chuck" Yeager?

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2. Who was the first person to fly alone and nonstop from New York to Paris?

- a. James "Jimmy" Doolittle
- b. Charles Lindbergh
- c. Orville Wright
- d. Charles Yeager

3. Daedalus, a character from Greek mythology, crafted a pair of wings for his son Icarus to use to escape the maze where they were held captive. Unfortunately, Icarus fell into the sea and perished. This was because

- a. the wooden wings were weak and broke into pieces.
- b. he failed to use a safety belt and fell from his frail craft.
- c. his craft was too heavy and fell into the sea.
- d. he flew too high, and his wings of wax melted.

4. Who made the first solo flight around the world?

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5. Man's first flight to the surface of the moon was made aboard *Apollo 11* in 1969. Can you name the three astronauts on that flight?

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6. When Calbraith Rodgers made the first flight across the United States in 1911, it took him 49 days during which he crashed 19 times.

- a. True
- b. False

7. The first airplane to carry passengers from coast to coast was the Ford Tri-Motor. What was the nickname of this airplane?

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8. What makes December 17, 1903, so important in the history of aviation?

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9. During the eighteenth century, the Montgolfier brothers sent three animals aloft in a hot air balloon to a height of 300 feet to prove that life could exist at such a great height. What kind of animals were they?

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10. The first American to fly over enemy lines during World War I was

- a. Glenn Curtiss.
- b. James Doolittle.
- c. General William "Billy" Mitchell.
- d. Captain Eddie Rickenbacker.

# CHAPTER 2

## THE SCIENCE OF FLIGHT

### REVIEW QUESTIONS

1. Most of the air in the atmosphere consists of
  - a. oxygen.
  - b. nitrogen.
  - c. water vapor.
  - d. helium.
2. The standard atmospheric pressure at sea level is \_\_\_\_\_ inches of mercury.
3. The standard temperature at sea level is \_\_\_\_\_ degrees Fahrenheit, and it decreases at a rate of \_\_\_\_\_ degrees Fahrenheit per 1,000 feet of altitude until reaching an altitude of about 7 miles above the Earth.
4. What is the temperature in outer space?  
\_\_\_\_\_
5. When air flows through a Venturi tube, its speed \_\_\_\_\_ and its pressure \_\_\_\_\_.
  - a. increases; increases
  - b. increases; decreases
  - c. decreases; increases
  - d. decreases; decreases
6. Air and water are fluids, and both behave similarly.
  - a. True
  - b. False



7. The person in the photograph is blowing across the top of a strip of paper. What does this demonstrate?



- 
- 
8. The total weight of the atmosphere is 5 quadrillion tons, which is 10 quintillion pounds.
- a. True
  - b. False

9. What do we call the resistance of an object moving through the air?
- 

10. A propeller is comparable to which one of the following pieces of hardware?

- a. Screw
- b. Nail
- c. Club
- d. Torquemeter

11. The force of thrust is used to overcome \_\_\_\_\_.

12. Ailerons are used to \_\_\_\_\_ the airplane about its longitudinal axis.

13. \_\_\_\_\_ are used to pitch the airplane about its lateral axis.

14. When an airplane stalls, its engine has failed.

- a. True
- b. False

15. When a person rides a bicycle and always feels the wind blowing in their face, what is the term used to describe that wind?

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16. In the photograph below, there is a surface area deflected downward from the back of the wing. What is this surface called and what is its purpose?



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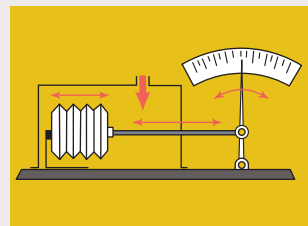
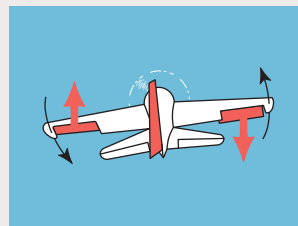
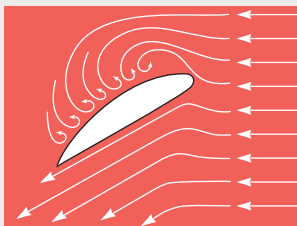
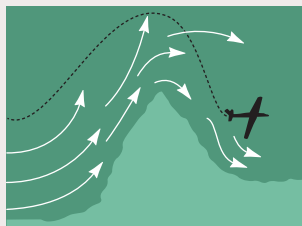
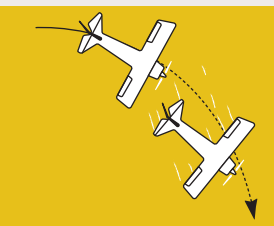
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