

SECTION
3-5**Fluids in Motion**

(pages 74-77)

KEY CONCEPTS

- ▲ Bernoulli's principle explains that the pressure in a moving stream of fluid is less than the pressure in the surrounding fluid.

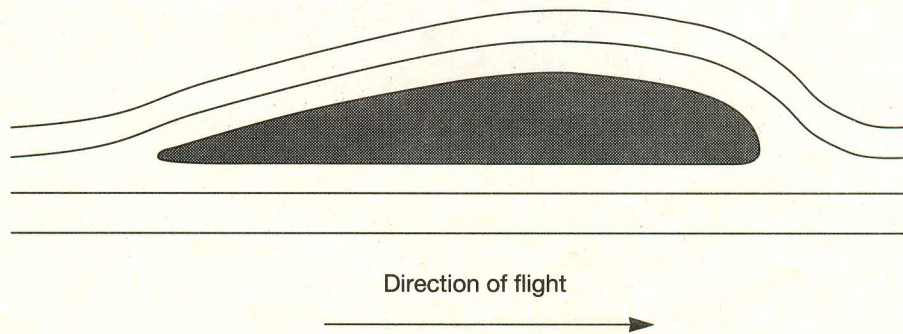
Building Vocabulary Skills: Applying Definitions

Decide which of the following situations can be explained by Bernoulli's principle. If Bernoulli's principle can explain the situation, write B before the number. If not, write N.

- _____ 1. a flat tire
- _____ 2. the flight of a glider
- _____ 3. flying a kite
- _____ 4. floating in salt water
- _____ 5. drinking through a straw
- _____ 6. smoke rising in a chimney
- _____ 7. roof pushed off from inside during high winds
- _____ 8. pitching a curveball
- _____ 9. floating a hot-air balloon
- _____ 10. stopping a car with hydraulic brakes

Up, Up and Away: Understanding the Main Ideas

The diagram below shows an airplane wing in flight. Look closely at the diagram, then answer the questions.



1. Describe the shape of the airplane wing. _____

2. Compare the distance that air must travel over the top of the wing with the distance that air must travel along the bottom of the wing.

3. What effect does this difference in distance have on the speed of the air above and below the wing?

4. What happens to the air pressure above and below the wing? Why? _____

5. Using your answer to question 5, explain how an airplane stays in the air. _____
