

# Lift Off!

The test pilots in this program flew planes faster than anyone thought possible. How do planes fly, anyway? Try out the following activities to learn about what makes things fly.



## Materials for each group

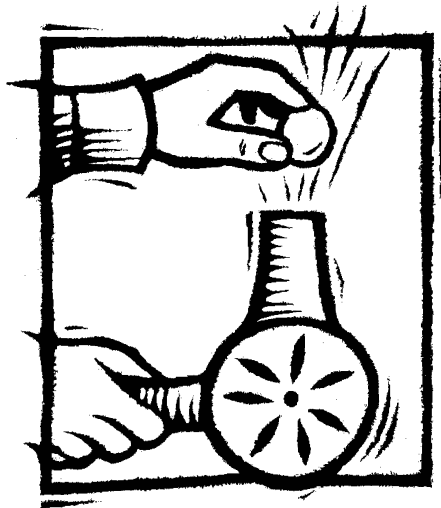
- table tennis ball
- hair dryer with a setting for cool air
- assorted sizes of small, round balloons—15 cm to 20 cm (6 in. to 8 in.) circumference when blown up

## Part I

**1** Explain what you think will happen when you place a table tennis ball in a stream of air from a hair dryer.

**2** Hold the hair dryer so that the nozzle is in an upright position. On the **cool** setting, turn the hair dryer on to its medium speed. Place the table tennis ball into the air stream and release it.

**3** What happens to the ball? Explain your observations using what you learned from the demonstrations.



## Part II

**1** Change the hair dryer's speed. Explain how the speed of the air stream affects the table tennis ball.

**2** Try placing a small balloon in the stream of air. How does its behavior in the air stream compare to that of the table tennis ball?

**3** Try suspending a balloon and a table tennis ball at the same time in the stream of air. What happens?