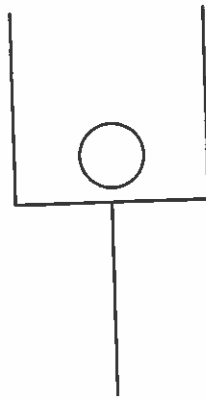


Get the Marble Out of the Cup

Four toothpicks have been arranged in the shape of a cup, as in the diagram below. A marble has been placed inside the cup. By moving only two toothpicks, see if you can reposition the cup so that the marble is no longer in it.



Surrounded By Scents

DO NOT OPEN THE FILM CANISTERS

- Sniff a canister and try to identify the scent
- Repeat for all canisters
- Check with your teachers to see if your identification is correct!

Speeding It Up!

- Record your resting heart rate (beats/minute)
 - Record your resting respiratory rate (breaths/minute)
 - Jog in place for ~~2~~ 1 minute
 - IMMEDIATELY do 50 jumping jacks
 - Record your NEW heart and respiratory rates
-

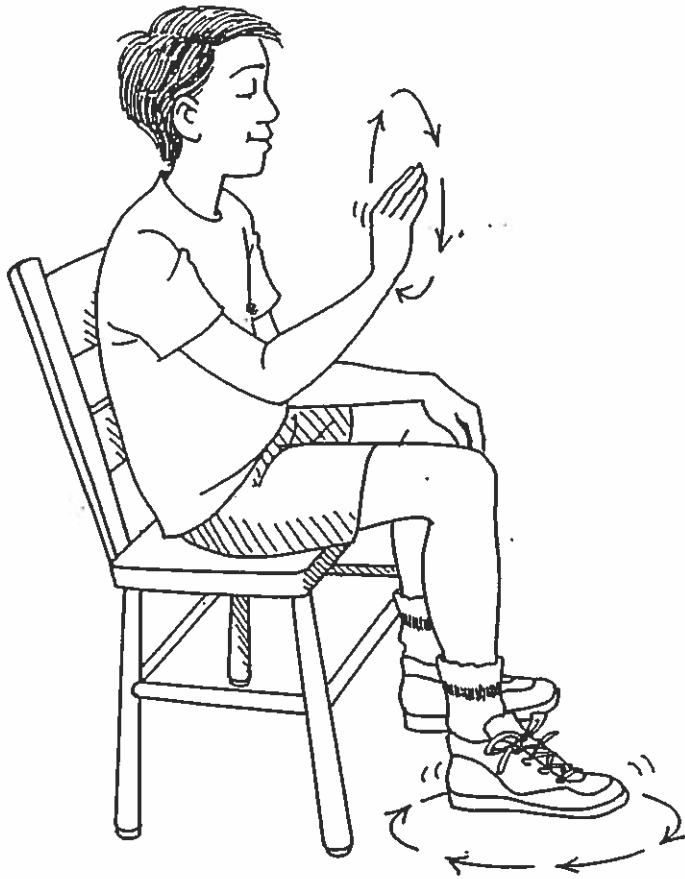
Activity: CONCENTRATION

Purpose To test your power of concentration.

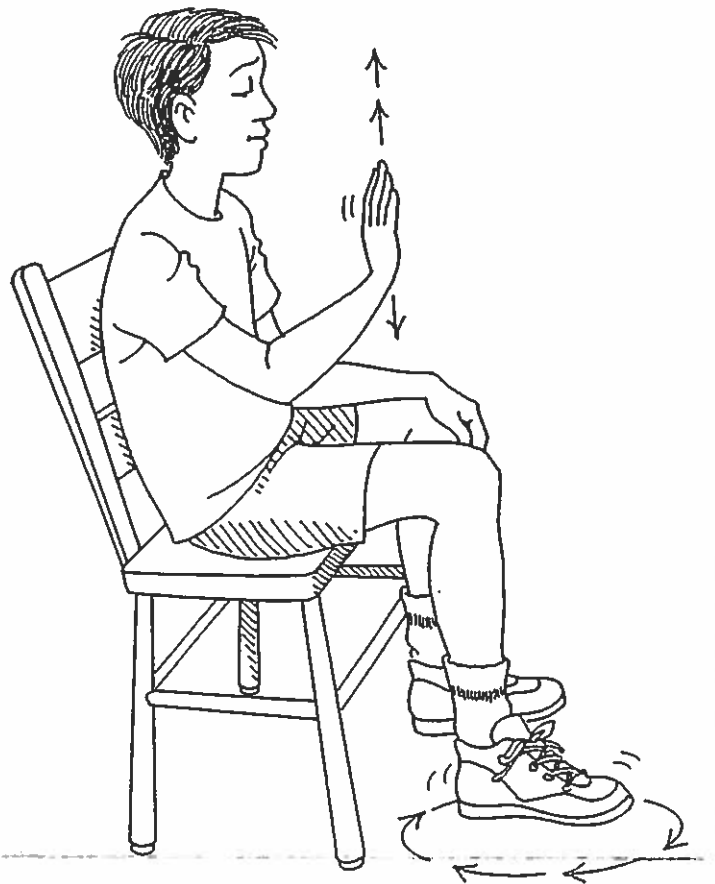
Materials chair

Procedure

1. Sit in a chair with your feet on the floor.
2. Use your right foot to trace a clockwise pattern on the floor.
3. Keep your foot going in a circle while you move your right hand around in a clockwise pattern in front of your body.



4. Continue tracing the circular pattern with your foot, but change the hand pattern to an up-and-down motion.



Activity: BACKWARD

Purpose To test your ability to control movements on different sides of your body.

Materials helper

Procedure

1. Extend your arms in front of your body and clasp your hands together.
2. Ask your helper to point at but not touch one of your fingers.
3. You must immediately lift the identified finger without lifting any of your other fingers.

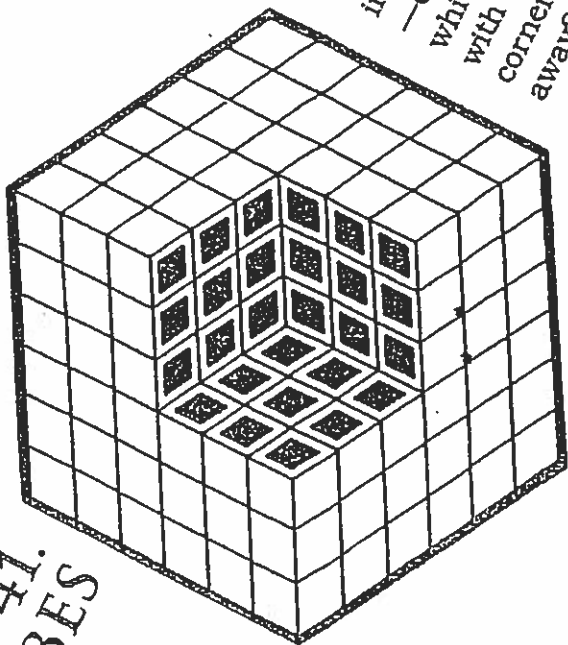


4. Observe how quickly you can move the identified finger.
5. Repeat steps 2 through 4 at least four times.
6. Repeat the procedure, but this time cross your arms before you extend them. Then, clasp your hands together and bring them up and close to, but not touching, your chest.



41.
CUBES

52



Is this a
dark cube
in a corner
—or is it a
white cube
with a
corner cut
away?

42. Apple Core

Do you notice anything
unusual about this
apple core?



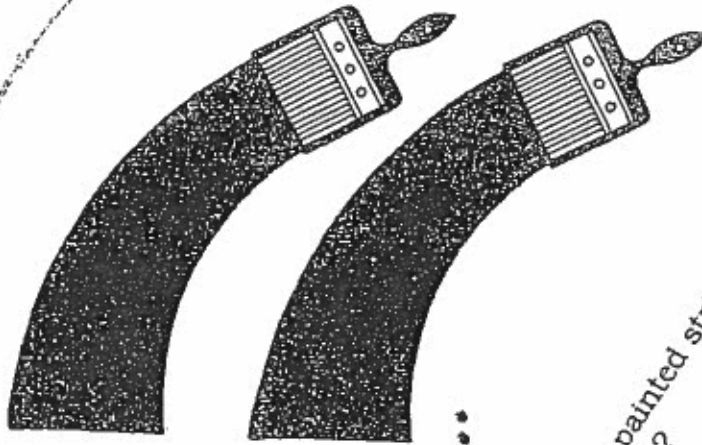
53

Seeing Is Believing

Try your eyes at some of the optical
illusions provided!

Seeing Is Believing

Try your eyes at some of the optical illusions provided!



6 **1. Painted Stripes**

Which of these two painted stripes is longer?

2. AT THE MOVIES

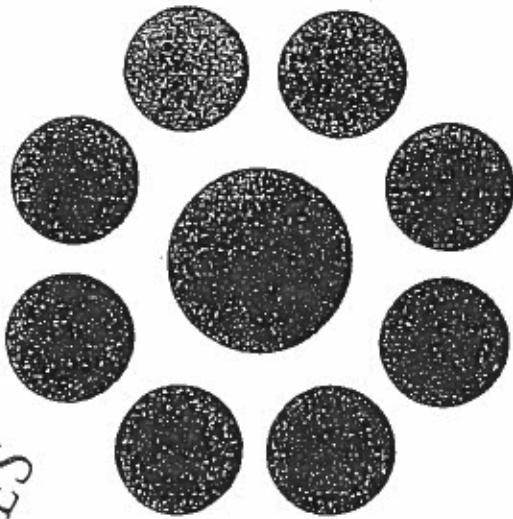
Which of these moviegoers is the tallest?



9. CIRCLES

14

Which inner circle
is larger—this
one—



15

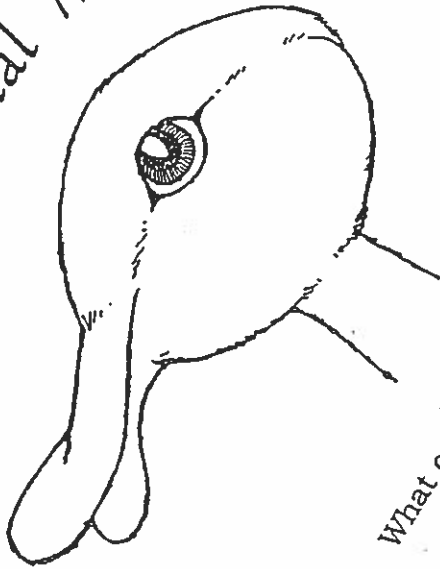
Or this one?



Seeing Is Believing

Try your eyes at some of the optical
illusions provided!

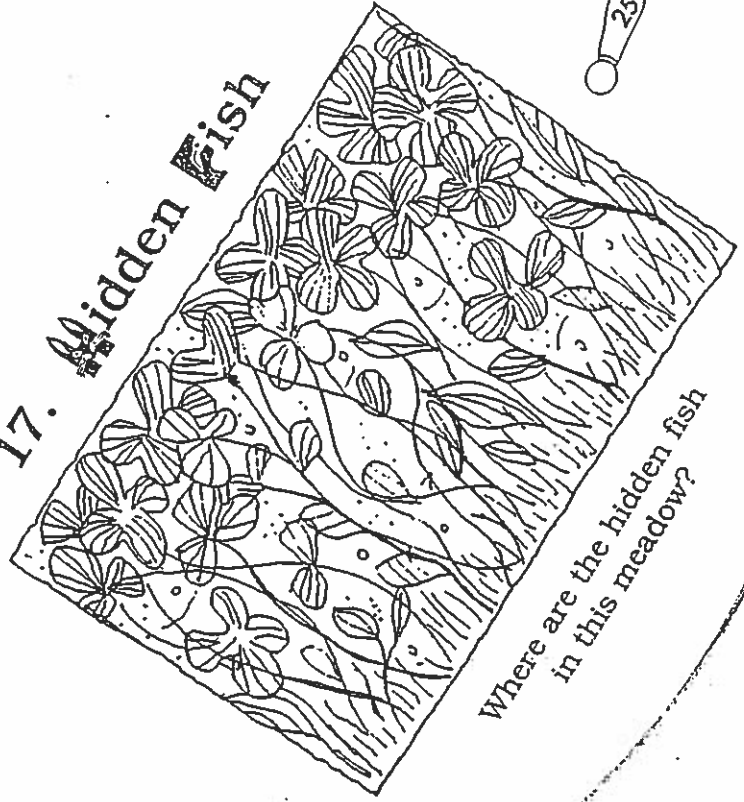
16. Animal Magic



24

What creature is this?

17. Hidden Fish



25

Where are the hidden fish in this meadow?

Seeing Is Believing

Try your eyes at some of the optical illusions provided!

Activity: HOT OR COLD?

Purpose To demonstrate that sensations of cold or hot can be deceiving.

Materials three 2-quart (2-liter) bowls
cold and warm tap water
5 ice cubes
spoon
thermometer

Procedure

1. Fill two of the bowls three-fourths full with cold tap water.
2. Allow one bowl of water to stand for 5 minutes in order to reach room temperature, which will be called the medium water.
3. Add the ice cubes to the second bowl of water. Stir with a spoon until the ice cubes are about half melted. This will be called the cold water.
4. Fill the third bowl three-fourths full of warm tap water. This will be called the warm water.
5. Use the thermometer to measure the temperature of the warm water. It should be about 113°F (45°C).
CAUTION: If it is hotter, add cold tap water, stir with a spoon, and check the temperature before proceeding.
6. Place the bowls on a table with the cold water on your right-hand side, the medium water in the middle, and the warm water on your left-hand side.
7. Put your right hand in the cold water and your left hand in the warm water.
8. After 20 seconds, remove your hands from the outer bowls and put both hands in the center bowl of medium water.

already done!



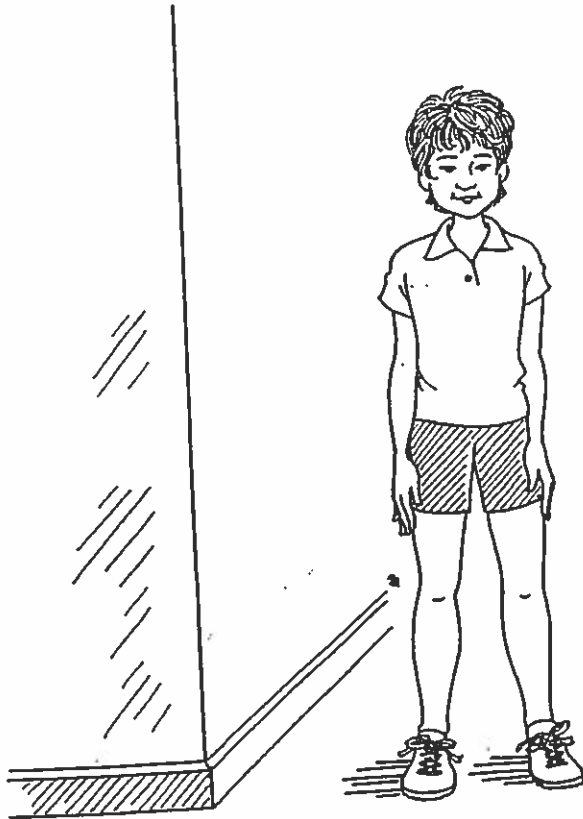
Activity: IN THE WAY

Purpose To demonstrate the body's automatic balance responses.

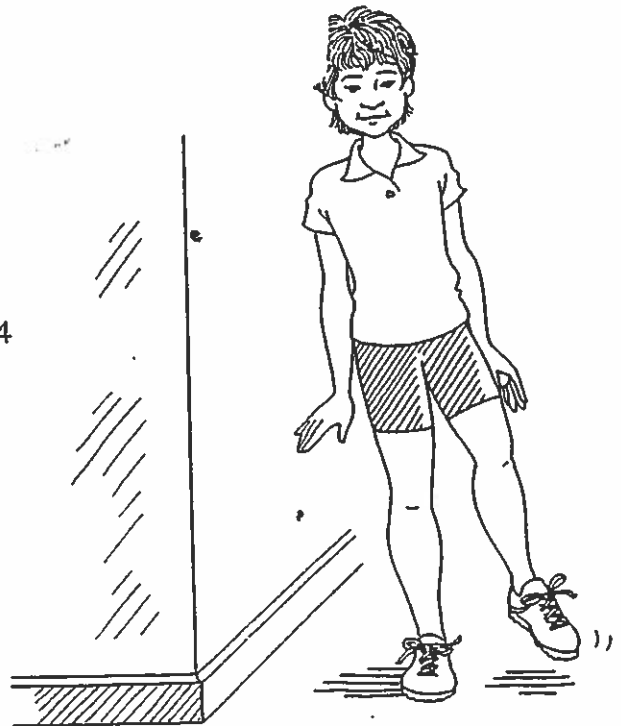
Materials wall

Procedure

1. Stand away from the wall with your feet about 12 inches (30 cm) apart and your arms held to your sides.



2. Bend your left knee so that your left foot is lifted about 4 inches (10 cm) above the floor.



3. Return your foot to the floor and move next to the wall
4. Stand as before with your feet about 12 inches (30 cm) apart and with your right foot and right shoulder against wall.
5. Again, bend your left knee so that your left foot is lifted about 4 inches (10 cm) above the floor.