



Weighing Air

Take a deep breath. Feel the air rushing into your nose and lungs? It is so wispy and light that it seems weightless. But of course, it isn't. We aren't aware that air has weight because we are surrounded by it. In fact, the gases in the air around us can be weighed. Try this activity to see for yourself.

Do the activity

1. Tape a deflated balloon to each end of a meter stick or yardstick, as shown in the diagram.
2. Try to balance the meter stick on one finger. What happens?

3. Now remove one of the balloons from the meter stick. Blow up the balloon and tie the opening shut.
4. Tape the blown-up balloon to the same end of the meter stick. A deflated balloon should still be attached to the other end of the meter stick.
5. Try to balance the meter stick on one finger again. What happens?

Interpret your results

1. Was there a difference in what happened when you tried to balance the meter stick with two deflated balloons and when you tried to balance it with one deflated balloon and one blown-up balloon? If so, what was the difference?

2. Does this activity provide evidence that air has weight? If so, explain the evidence.

MATERIALS

For each group of students:

- > 2 balloons
- > Meter stick or yardstick
- > Clear tape

