

The Pressure's On!

Procedure

- 1. Measure** Cut the top off of two balloons. Then, cut one of the balloons $\frac{1}{3}$ of the way down. **Safety:** Be careful when using scissors.
- 2.** Stretch the smaller balloon over the mouth of the smaller jar until it is tight. Secure it with a rubber band. Tape a toothpick on the balloon over the center of the mouth of the jar. Leave the toothpick hanging over the lip of the jar.
- 3.** Carefully place the small jar inside the larger jar. Stretch the larger balloon tightly over the mouth of the large jar. Secure it with a rubber band.
- 4. Experiment** While one partner holds the large jar, the other partner should push down on the balloon to increase the air pressure inside the large jar.
- 5. Observe** On the lines below, record what happens to the toothpick when the balloon is stretched downward.

- 6. Experiment** Repeat step 4, this time pulling up on the balloon. On the lines below, record what happens to the toothpick.

Conclusion

Write the answers to the questions.

1. **Infer** How does pulling up on the balloon affect the air pressure inside the jar?

2. **Hypothesize** What does your model show about how changes in air pressure can be observed?

Investigate More!

Design an Experiment How could you modify this experiment to detect actual changes in the atmospheric pressure? Compare your observations with air pressures listed in the newspaper.