The Pressure’s On!

Procedure

Safety: Be careful when using scissors.

1. Collaborate Work with a partner. Cut off the top of two balloons. Then, cut one of the balloons a third of the way down.

2. Use Models 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. Use Models 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 jar.

5. Observe Record what happens to the toothpick when the balloon is stretched downward.

6. Experiment Repeat step 4, this time pulling up on the balloon. Record what happens to the toothpick.
Conclusion

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

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

Experiment

How could you modify this experiment to detect actual changes in air pressure? **Compare** your observations with air pressure readings listed in the newspaper.