

Where Is the Balloon the Biggest?

Summary

The students will measure the diameter of a balloon full of air. Put the balloon into a microwave and heat for 5-10 seconds and re-measure. Put the balloon into a freezer for 5-10 minutes and re-measure.

Time Frame

1 class periods of 45 minutes each

Group Size

Large Groups

Materials

- balloons
- string
- metric ruler
- microwave
- freezer

NOTE: The same results can be obtained using a hair dryer and a sink of cold water.

Student Prior Knowledge

particles move

Instructional Procedures

This can be done as homework, demo, or activity. Have the students draw a line with a marker on the balloon where it will be measured. Depending upon the type of balloon the time in the freezer and the microwave will vary. Test it first with the ones that you have.

Blow up the balloon and draw a line around the middle. Using a string measure the Circumference. Record

Put the balloon into the freezer for 5-10 minutes. Quickly take it out and re-measure along the same line.

Put the balloon in the microwave and heat for 1-4 minutes. Quickly take it out and re-measure along the same line.

Answer these questions.

Why did the balloon seem to shrink?

Why did the balloon seem to get bigger?

Draw sketches that would show both processes.

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)