

Introduction to Air Pressure

Descriptive Data:

Grade Level: 3-5 Grade

Topic/Theme: Weather, Air Pressure

Length of Lesson/Time of Day: 40 minutes, 11:00am-11:40am

Goals:

1. Students learn that air is a gas and takes up space, like a solid or liquid
2. Students learn the difference between high and low pressure
3. Students learn how heating and cooling affect air pressure
4. Students learn about the effects of air and pressure in the environment

Objectives:

1. When asked, students will identify the differences between high and low air pressure with 80% accuracy.
2. When asked, students can describe the effects of heating and cooling to air temperature with acceptable information.
3. When asked, students can give an example of the effects of air pressure or how air pressure is used in the real world using informed reasoning to give an acceptable answer.

Method of Instruction: Inquiry, Whole group, student and teacher directed

Materials:

- 40 straws, or 2 straws for each student
- 10 large deflated balloons
- 10 small deflated balloon
- 2 clean milk jugs
- 1 gallon VERY hot water
- 1 bucket/container
- Refrigerator or freezer

Adaptations:

1. Special Education/IEP: The teacher will model correct behavior, repeat instructions, and ask questions to check for understanding of the directions and information.
2. English Language Learners: The directions will be modeled visually for students to understand the task at hand.
3. TAG: A challenge activity and question will be posed to further understanding of the topic.

Time:

1. Introduction/Opening discussion- 10 minutes
2. Demonstrations and student exploration- 20 minutes
3. Wrap-Up/Assessment/clean up- 10 minutes