



Fernbank Science Center

Title: CHANGES IN MATTER (4212)
Level: 2ND Year
Location: Local School

Type: Outreach
Length: 60 minutes
Limit: 150 students

Program Description

The instructor will discuss properties of matter and conduct a series of demonstrations involving changes in matter. Demonstrations will include evaporation, condensation and sublimation.

Objectives

The students will be able to:

- 1) **S2P1 (a) identify the three common states of matter as solid, liquid, or gas;**
- 2) **S2P1 (b) investigate changes in objects by tearing, dissolving, melting, squeezing, etc.;**
- 3) **S2CS (a) make careful observations and measurements and try to figure things out;**
- 4) recognize heat as a kind of energy and observe how energy changes matter.

Vocabulary

liquid	solid	gas
energy	physical change	carbon dioxide
matter	condensation	evaporation
sublimation		

Pre-Visit Activity

Review the above vocabulary.

Post-Visit Activity

4212 Changes in Matter Post Activity. This activity addresses **GPS S2CS5 (a)** and **GPS S2CS7 (a)**.

What Is It?

Properties of Objects and Materials

Doing the Experiment

1. Divide students into groups of two or three.
2. Give each team a brown paper lunch bag containing a familiar object.
3. Each team member reaches into the bag without looking and feels the object in the bag. The feeler thinks of a word that describes the object.
4. Teams choose three words that tell about the object without naming it (metal, flat, smooth, cold, hard).
5. The words are written on the bag tag. The bag tag is stapled to the top of the bag with the object still inside.

Sharing the Results

Teams read the words on their bag tags. The class tries to guess the object in the bag.

Making Connections

Bring a box with a label that describes the contents. Read the description. Ask students, "Have you ever seen a label on a box or bag that describes the thing inside? Why would it be important to know the description?"