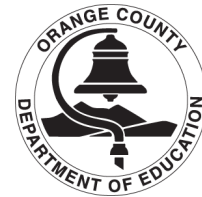




Candy or Cake? Classroom Activity



SYNOPSIS

Students will conduct an experiment to discover the difference between mixtures and compounds.

OBJECTIVES

Students will be able to:

- describe the differences between a mixture and a compound
- identify a mixture
- identify a compound

MATERIALS

- small saucepan
- 375 ml or more of sugar
- 250 ml of water
- cups or glasses
- wooden spoon
- pencils
- several pieces of clean cotton string

SET UP (Could be done in advance or with class)

1. Boil the water in the saucepan on the stove and then remove it from the heat.
2. Add the sugar to the water and stir until all the sugar is dissolved.
3. When the sugar disappears, add more and stir.
4. Keep adding a little sugar at a time and stir it until you can see sugar floating in the water.
This is the point of supersaturation (when no more sugar will dissolve in the water).

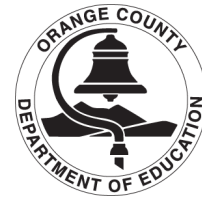
PROCEDURE

1. Let the water cool a little and then pour it into the cups or glasses.
2. Tie the cotton string around the pencil.
3. Rub some sugar into the string so that a few grains stick to the string.
4. Drop the free end of the string into the sugar water.
5. Rest the pencil on the rim of the cup.
6. Put the cup in a cool place, then do not touch the cup.
7. Have the students record their observations in their science notebooks.



Candy or Cake?

Classroom Activity (cont.)



PROCEDURE

8. Wait a few days, then gently pull the string from the water.
9. Have the students record their observations in their science notebooks.
10. Taste the solid that clings to the string.

CHECK FOR UNDERSTANDING

1. Have the students share their observations.
2. Ask them what they think happened?
3. Discuss with the students the difference between an mixture and a compound.
4. Ask them for other examples of mixtures and compounds.
5. Sugar in the water was an example of a mixture. It is a mixture because the sugar could be separated from the water using a physical force.
6. An example of a compound would be a cake. Once the cake has been baked it can not be separated into the original ingredients using physical means.

EXTENSIONS

- Have the students experiment with different mixtures and compounds.
- Have the students identify other mixtures and compounds that they can find at their home or school site.
- Have the students identify the different materials used to make the mixtures and compounds.