Ashley Rogers

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SCE 3310

Lesson Plan/ Peer Teaching

**Title**: Water Density

**Grade Level**: 5th grade

**Objectives**:

* The students will be able to identify the density of different water mixtures.
* The students will learn the effects salt has on water density.

**Sunshine State Standards**:

* [SC.5.P.8.1: Compare and contrast the basic properties of solids, liquids, and gases, such as mass, volume, color, texture, and temperature.](javascript:__doPostBack('ctl00$ContentPlaceHolder1$FlBrowseTab$IdeaViewerPanel1$RadPanelBar1$i2$i0$ResRelBenchUc1$GrdRelatedBenchmarks$ctl00$ctl04$HyperLink2','')) 
* [SC.5.P.8.In.c](javascript:__doPostBack('ctl00$ContentPlaceHolder1$FlBrowseTab$IdeaViewerPanel1$RadPanelBar1$i4$i0$RelatedAccessPointIdea$Repeater1$ctl01$Repeater2$ctl03$linkbtnAccess',''))**:** Identify the observable properties of the parts of a mixture, such as the particle size, shape, and color.

**ESOL Strategies**:

* Small groups
* Hands-on activity
* Visuals
* Background knowledge of key terms

**Materials**:

* Straws
* Food coloring
* Cups
* Salt
* Spoons
* Pipette

**Content Overview**: In this lesson, 5th graders will learn about density. Density is the amount of matter in a certain space. They will learn this concept when measuring different densities of water. Students will also observe the effects that salt has on water when mixed. They will learn that by adding salt to water it will make it denser.

**Process Skills**:

* Observing
* Measuring
* Inferring
* Predicting
* Communicating

**Instructional Procedures**:

1. Ask question:” Does anyone know what density is?”
2. Explain what density is. Density is the amount of matter in a certain space
3. Give an overview of experiment: We are going to conduct an experiment that will show us the density of water.
4. Pass out supplies to students. (3 cups, 3 spoons, food coloring, salt, straw, pipette)
5. Tell students to fill 3 cups half way up with water and put a food coloring drop into each cup: Cup A- red, Cup B- Blue, Cup C- Green
6. Add then stir 1 spoonful of salt to Cup A, 3 spoonfuls of salt to Cup B, and leave Cup C alone.
7. Using the pipette put the water mixture you feel is most dense into the straw first. Then add the mixture you feel is less dense. (If the colors mix in the straw, the more dense mixture is on top, if the colors stack, the density was correct.)
8. Continue testing the densities until all of the colors stack.
9. Ask the following questions: what did they notice when conducting the experiment?, which one was most dense?, which was least dense?
10. Explain that Cup B should be the most dense because it has the most amount of matter.

**Evaluation/Assessment**:

* Students will be evaluated informally based on their participation in the experiment and in the discussion after the experiment.

**References**:

Darden. *Science Rocks*. PBS Kids. 1998. 12 Nov. 2010. <<http://pbskids.org/zoom/activities/sci/waterdensity.html>>