Lesson designed by the City of Lubbock Water Utilities Conservation Education Department 406 Muncipal Drive Lubbock, Texas 79403 (806) 775-2586

BLUE STUFF

I. Objectives

- a. Students will recognize the vast amount of water available in the world.
- b. Students will know the difference between fresh water & salt water.
- c. Students will understand that despite having a huge amount of water available in the world, only a very small amount can be safely used!

II. Materials

- a. Globe
- b. Small jar containing 100 beads (97 green, 2 blue, 1 red)
- c. 10 large green beads per student
- d. 3 small beads per student (2 blue, 1 red)
- e. 1 strand of rexlace per student, 30" long

III. Introduction

a. Show globe to class

???What is all this blue stuff? (Water)

???Is there more land or more water on the earth? (Water)

???What can you find underground if you dig deep enough? (Water!)

Notice all the seas & lakes that are surrounded by land, too!

???What can't you see, though? (Rivers, small lakes, streams)

We have a LOT of water on the earth! A lot of it we can see (lakes, rivers, oceans, etc.) and a lot of it we can't (underground).

IV. Types & Usage of Water

a. We are going to be talking about two different types of water today: fresh water and salt water.

???What kind of water do you think you use? (Fresh)

???What do you use it for? (If a board is available, keep a list of all the ways the students come up with for water usage)

???Why don't we use salt water? (Contrast what salt water would do if we used it instead of fresh water for all of the usages the students came up with)

???(Pointing to oceans on globe) What kind of water is all of this? Fresh or salt water? (Salt water??? However, we need fresh water!!!)

b.It is easy for us to not think about water. After all, we go to a faucet, turn it on, and what do we get? Water! But I am going to show you something that maybe you did not know... I am going to show you just how much fresh water we have... Bead Activity

- -We are going to pretend that this jar contains all the water in the world!
- -Pull out small jar with 100 beads and shake it up. Allow students to pass jar around so each student gets a chance to examine it.
- ??? What do you notice about the beads in the jar? (See if anyone notices the green or red beads)
- -This jar contains 100 beads... all the water in the world. All of the green beads are salt water.... Can we use that? (NO!)

- -Did anyone see the blue beads? Does anyone want to guess what those blue beads stand for? (Polar ice caps) Are the ice caps salt or fresh water? (Fresh) Can we use them, though? (No!) Why not? (The water is frozen we would have to put it on a boat, bring it here, and melt it that is a lot of work!)
- -Did anyone see the red bead? Does anyone want to guess what the red bead stands for? (Fresh unfrozen water) You mean to tell me that out of all the water in the world, we can only use that small amount?? (Yep!)
- -That is why it is important for us to save water. That way, we do not run out!

V. Activity

- a. We are going to make a "water necklace" to represent all the water in the world, so you can go home and teach your family what I taught you today!
- b. Give each student a piece of rexlace and a packet of the 10 large & 3 small beads.
- c. Give students time to string beads on rexlace and help students tie necklace together.

VI. Conclusion

- a. We have already learned that it is important to save water since we only have a little fresh water for everyone in the world to use, but how can we do that? What are some ways that we can save water?
- -If a board is available, make a list of the students' ideas to save water
- -Add different water conservation tips after they have given several ideas. Include (as time allows):
 - 1. When you get a glass of water, drink it all, or save what you do not drink for later.
 - 2. When you brush your teeth, turn of the sink while brushing.
 - 3. When you water your lawn, make sure all the water from the sprinkler goes on the grass (instead of the sidewalk or street)
 - 4. Water your lawn at night or early morning.
 - 5. Any others that you wish to add...

b.Questions?

