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

CLOUDY DAYS

I. Objectives

- a. Students will be able to define what a "resource" is.
- b. Students will discover what resources are needed to support life (with emphasis on water).
- c. Students will understand that all of these resources work together to make life possible on earth.

II. Materials

- a. One package of crayons per student
- b. One coloring sheet per student
- c. 4 blue cotton balls per student
- d. Glue for each student
- e. One glass of water and a cotton ball for cloud demonstration

III. Introduction

- a. I have a quick question for you about the first day of school... when you came to school; you received a list of things you had to go buy so you could use them in class.
- -What were some of those things? (Let students answer)
- b. So all of those things you mentioned are things we can use! That is what we are going to talk about today things we use!
- Do any of you know what a resource is? (Let students answer)
- The definition of resource is very simple it is just three words: a resource is something you use!
- Is your pencil a resource? Your paper? Backpack? This school? Your home? Your teacher? Me? You? (Yes!)
- Say this together with me: "A resource is something we use!" (Have students repeat once or twice)
- c. Today, however, we are going to be talking about natural resources.
- What is the difference between a resource and a natural resource? (Natural resources come from nature they're not man-made)
- So what are some examples of natural resources? (Let students answer)
- d. Specifically, we are going to be talking about natural resources that we need to survive if we did not have them, we would die!
- -Can you think of any natural resources that we could not live without? (Air, water, sunlight, food)
- e. Let us talk about these natural resources, and how they work together to keep us alive!

IV. Natural Resources & Activity

- a. I brought some things to help us understand how these resources keep us alive...
- Pass out coloring sheets and crayons
- b. Our coloring sheet has a cloud, a tree, and a pond with a duck and some plants. We are not going to just start coloring this picture, though... We are going to talk about each part of this picture before we color it.
- c. Let us start with the cloud, but do not color the cloud yet I will tell you why later!
- Normally, when you see big clouds, and they start getting dark, what is about to happen? (Rain! Have students color rain coming from the cloud.)
- What is rain made out of? (Water! One of the four natural resources we need to live! Even you and I are made partly out of water! That is why you always have adults telling you to drink lots of water! Your body needs it!)

- d. Down in the corner of your sheet you have a tree. What is going to happen when that rain hits the tree and other plants? (They will grow! They need water too! Have students color tree.)
- -What are some different kinds of trees and plants? (Let students answer & take mental note of food-producing plants.)
- Many trees and plants give us food (apples, oranges, watermelon, tomatoes, carrots, etc.)! And food is one of the four natural resources we need to live! So the water makes the plants grow and many plants grow food for us to eat!
- e. Does all of the water soak into the ground for the trees and plants? (No some of it flows into rivers, lakes, & ponds.)
- Do you see a pond on your sheet? (Yes! The rainwater is also running into the pond.)
- -What lives in ponds? (Different plants, fish, and animals. Have students color the pond, the plants, and the duck.)
- -We have talked about how plants need water, and how we need water, but do animals need water too? (Yes! Just as we do without water, they would die!) How do we use animals? (Food, clothing, etc.)
- f. We have talked about water and food, but there are two others we have not talked about yet... what about air?
- -Do we need air? What about plants and animals? (Yes to all! We cannot color air because we cannot see it, but we can certainly feel it! Have students take several deep breaths.)
- g. And finally, what else do plants need to grow? (The sun!) In fact, without the sun, the earth would be too cold to live on, and everything would die but we DO have the sun... except I do not see one on your sheet... have students color the sun on their sheet.
- h. Have any of you ever gone out to play in the water? When you are soaking wet, but you stand out in the sun, what happens? (You dry off!)
- -All of that water goes up into the sky! And guess what it creates... clouds!
- -Now remember that I asked you not to color the clouds... here is why: Pass out four cotton balls and glue to each student.
 - 1. Show students how to fluff up the cotton balls and have them glue the balls to the cloud.
- -As that cloud gets full of water, it gets bigger, and darker.
 - 1. Lightly dip cotton ball into water and hold up. Is there enough water to rain yet? (Not yet)
 - 2. The cloud gets bigger and darker, and gets more water... Dip cotton ball lightly into water again and hold up. Is there enough water in the cloud to rain yet? (It is getting there!)
 - 3. When that cloud gets really full of water and wind comes up and starts pushing that cloud around... Dip cotton ball once more into water, hold above glass, and gently squeeze the cotton ball to simulate wind. What is happening? (It is raining and we are right back where we started with this coloring sheet!)

V. Conclusion

- a. What happens if we take out any of these four natural resources we have talked about (water, air, food, and sun)? (All the animals, plants, and people die we have to have ALL of them!)
- -Not only do we need them, but I hope you've learned a little today about how they work together to make things grow.
- b. Is it possible for us to use up all of these resources? (Some of them, yes!)
- I am only going to talk about water here... Can we run out of water? (No.) How about drinking water? (Yes! We need to be careful about not wasting our clean water.)
- 1. Some ways we can do that would be to water our lawns at night, turn off the sink when we are brushing our teeth, taking short showers, and making sure any leaks in our sinks are fixed!
- c. Remember, it is our job to take care of the world who else is going to do it?
- d. Questions?

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