



Environmental Character Education



Curriculum Resources

Citizenship

Elementary School - November, 2006

Citizenship is knowing, understanding, and displaying a high regard for rules, laws, government, heritage, and for those who have served and sacrificed for community and country. This month, students can learn to be good citizens by caring about our nation's health and taking the initiative to help our environment. America Recycles Day is November 15, 2005. The activities in this newsletter encourage students to think about the benefits of recycling and the important role they play in the recycling programs already established in their schools and neighborhoods.

Since we all share the air that we breathe, it is very important for each of us to act as good citizens by doing our individual part in helping to keep the air clean. Even though we do not normally give much attention to the air that we breathe, air is extremely important; humans can live for one week without food, and two days without water, but we can only survive for five minutes without air!

We want to make sure that the air we breathe is healthful. You would not want to drink dirty water would you? It could make you very sick if you did drink dirty water. The same is true for our air. Breathing dirty or unhealthy air can also cause serious health problems.

There are lots of easy ways to help you do your part in keeping our air healthy. Walking, biking, or skating helps the air because it does not burn gasoline. Also, planting trees and other plants helps our air because plants remove harmful CO₂ and replaces it with clean oxygen for us to breathe.



Six Great Ways to Display Your Environmental Citizenship

When you agree to do something, follow through. If you let people down, they will stop believing you. When you follow through on your commitments, people take you seriously. Take a pledge to be environmentally responsible and stick to your pledge.

Answer for your own actions. Don't make excuses or blame others for what you do. When you take responsibility for your actions you are saying "I am the one who's in charge of my life." Keep in mind the possible environmental consequence of your daily actions.

Take care of your own matters. Don't rely on adults to remind you when you're supposed to do the right thing for the environment. You take the responsibility.

Be trustworthy. Your family, friends and neighbors expect you to do your part to take care of the environment. It is important for people to know they can count on you.

Always use your head. Think things through and use good judgment. When you stop and think things through, you will end up making better choices for the environment.

Don't put things off. When you have an opportunity to do something good for the environment, do it promptly. Doing things on time helps you take control of your life and shows others that you can manage responsibilities.

If you have any questions regarding these activities or have any comments, call 954-519-1220 or e-mail airoutreach@broward.org.
You can also visit our web site at www.broward.org/kids.

Activity 1: Group Discussion

Sunshine State Standards: SC.D.1.2; SC.D.2.2



Acidic deposition, or acid rain as it is commonly known, occurs when emissions of sulfur dioxide (SO₂) and oxides of nitrogen (NO_x) react in the atmosphere with water, oxygen, and oxidants to form acidic compounds. These compounds are then deposited by rain onto the earth's surface or water bodies. Prevailing winds transport the compounds, sometimes hundreds of miles, across state and national borders before they are deposited on the surface.

Acid rain occurs in Florida, but the degree of acidity of the state's rainfall is less than that of the Northeast United States, where most of the ecological damage associated with acid rain has been found. However, Florida does have a number of lakes that are potentially sensitive to acidification by rain. Encourage students to investigate the pH levels of rainwater collected at home or at school using litmus paper. Compare the pH from rainwater samples to the pH of tap-water or bottled water.

Source: <http://www.dep.state.fl.us/air/pollutants/acidrain.htm>

Activity 2:

Sunshine State Standards: SC.D.1.2; SC.D.2.2

Show students a variety of pictures depicting air pollution. Explain that sometimes air pollution is very easy to see, but sometimes it is very hard to detect.



Materials

4 small rubber bands, 1 wire clothes hanger, a magnifying glass

Background

The atmosphere is almost completely made up of invisible gaseous substances. Most major air pollutants are also invisible, although large amounts of them concentrated in areas such as cities can be seen as smog. Sometimes smog, is invisible. Carbon dioxide is one of the gases that contributes to the greenhouse effect. This lesson will help you understand that air pollution is all around you even if you can't see it. It will also give you an idea of the effects air pollution has on Earth.

Procedure

- Discuss causes and effects of air pollution.
- Bend the hanger so that when you stretch the rubber bands over the hanger, they are tight.
- Hang the hanger outdoors in a shady place so it's out of the sun and leave it there for two weeks.
- After two weeks are up, look at the rubber bands. Do they look the way they did before, or are they cracked? Check with the magnifying glass too!
- Touch the rubber bands. Do they feel the way they did before, or are they hard? If they look and feel the way they did before, then the air is quite clean. If they look cracked and feel hard, then the air may be slightly dirty.
- Leave rubber bands out for a few more weeks.
- Discuss student observations.

Source: <http://www.tceq.state.tx.us/assets/public/assistance/education/air/rubberband.pdf>



America Recycles Day is November 15, 2006

Visit www.americarecyclesday.org for valuable information on recycling, how recycling works, do's and don'ts of recycling, interesting end products, how to get involved in your community, various recycling events in Florida, and contest information.

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