**Carbon Cycle Activity with Balloons**

Materials needed:

1. Black balloons blown up (we used 40)
2. Bags that can hold about 2 or three balloons – but not more than that

Purpose: Participants will become highly involved in ‘acting out’ the carbon dioxide cycle in this activity. Balloons are used to represent carbon dioxide and people posing as trees consume the carbon dioxide for photosynthesis. The natural cycle of carbon dioxide on the planet is first explained using the trees and balloons. Then we get a glimpse at some activities from Person A’s and Person B’s lifestyles. Person B generates a much higher carbon footprint by their choices.

Activity:

1. Give a brief overview of the carbon cycle. A picture that illustrates the cycle is helpful. A brief explanation of photosynthesis will help as well.
2. Ask for 10 participants to be ‘trees’.
3. Ask for 2 more participants. One will be ‘Person A’ and the other will be ‘Person B.’
4. Explain to the ‘trees’ that they will collect carbon dioxide from the people and put it in their bags to perform photosynthesis.
5. Run through some scenarios with the forest:
6. Demonstrate the carbon cycle with the facilitator “breathing out” and giving a balloon (carbon) to a tree. Have the tree put the balloon in a bag.
7. Do this so that each tree has at least one balloon.
8. Explain that a forest fire has wiped out one-third of the forest. Have about 3 trees sit down and release their carbon dioxide into the environment (take balloon out of bag and set on the ground). Fires release carbon dioxide into the air.
9. Explain that a lumber company harvests about one-third of the trees. Have 3 trees leave the display area and take their carbon dioxide (balloons) with them. Carbon dioxide stays within the harvested trees.

6) Develop scenarios using the *“What You Can Do” handout* for Person A’s and Person B’s lifestyle choices that illustrate the impact of their carbon footprint. Select activities that support your program. Some possible examples are listed below:

Person A has an Energy Star dishwasher and always runs a full load. (Have Person A give one balloon to the trees.

Person B has a very old dishwasher that is inefficient. Person B frequently runs small loads. (Have Person B give 2 balloons to the trees to represent their carbon footprint for running their dishwasher so frequently with small loads.)

Person A has a high gas mileage, fuel efficient car. (Have Person A give one balloon to the trees.)

Person B has a 1970’s battle cruiser for a car, and the gas mileage is awful. (Have Person B give 3 balloons to the trees.)

7) Continue to call out lifestyle choices for Person A and Person B and have them give the

corresponding number of balloons (carbon dioxide) to the trees.

8) At some point, there will be much more carbon dioxide than the trees can filter (their

bags will be full). To speed the process along, you can add a coal burning power plant and

dump a bunch of balloons on the trees – too many for them to filter.

9) Once the forest has reached its maximum carbon dioxide absorption, generate a conversation

about what is happening to the carbon cycle. Have participants relate this activity to the real

world.