Carbon Clean Up Obstacle Course*

Dealing with the issue of climate change can be a daunting prospect. Luckily, no one has to do it on his or her own! Learning how to work cooperatively with other people is an important step in solving the problems we face today.

Activity Time:
30 minutes

Setting:
Gymnasium or outdoors

Materials:
- Five pylons or other markers (general supplies)

Not included
- Six large sturdy hula-hoops∞
- 48 beanbags∞
- Six recycling boxes (or other containers)∞
- 24 volleyballs or playground balls or combination∞

∞ If the group size is larger than 24 you will need more of these materials

Grade Level:
Grade 4-7

Subject Areas:
Biology, ecology, social studies

Group Size:
24+

Keywords:
Atmosphere, carbon, carbon cycle, choice, personal responsibility

* Source: ffl.nbed.nb.ca

WildBC

Summary

Students reinforce key concepts around cooperation and personal responsibility in this fun and active obstacle course.

Objectives

Students will:
- Describe potential environmental impacts of using BC's living and non-living resources
- Demonstrate how personal choices and actions have environmental consequences
- Evaluate human impacts on local ecosystems

Making Connections

The lifestyle changes that will have to be made in order to mitigate carbon emissions will be challenging for many. Differences will arise between individuals, socio-economic groups, cultures and countries as to how best to address the challenge. Learning to work together in a spirit of cooperation and good will is an important skill to develop in order to find solutions that will benefit everyone. In this activity, students learn the benefits of working together toward a common goal.

Background

The Climate Change Primer provides a good introduction to the causes and effects of climate change along with initiatives to curb carbon emissions. The document 101 Things Teachers Can Do About Climate Change has a variety of ideas for limiting carbon emissions and making easy, positive lifestyle changes that will help the environment.

Procedure

Warm Up

Explain to students that they will be participating in an obstacle course that highlights the importance of people working together to solve a problem. Ask how this principle might be important when dealing with the issue of carbon emissions and climate change.

The Activity

1. Use the pylons to define the corners and the centre of the play area. Along one end place the bins for the beanbag toss and a pile of beanbags for each team. Along the opposite end place the balls.

2. Divide players into teams of four. If numbers are uneven, have a few students help you in observing the play to ensure everyone plays by the rules. Get a whistle for the students who will help enforce rules (they can be disinfected in alcohol). Give each team a hula-hoop. Each team must remain inside their hula-hoop at all times!

Carbon Clean Up Obstacle Course

3. Each team is assigned a start place along the edge.

4. Explain the three obstacles:

- **Recycling Relay** – All team members stand in their hoop and throw two beanbags each into a recycling bin from a distance of approximately 3m. Any missed beanbags must be retrieved by the team and re-thrown by the team until all are in the bin
- **Carbon Busters Carpool** – Each team must circle the outside of the play area once, starting and finishing at their assigned start place. They must go outside of all the pylons (the HOV lane which stands for "high occupancy vehicle" or carpool lane) without disturbing the other teams or letting their hula-hoop touch the ground. If they hit another team or drop their hoop, they must return to the nearest corner (without getting out of the hoop) and then continue.
- **Carbon Clean Up** – While still in the hula-hoop, each team member must place a carbon molecule (volleyball or playground ball) between his or her knees. The team then must hop to the centre pylon and back. Any dropped carbon molecules must be retrieved and the team must re-start at the point where the ball first fell. A referee is important for this part of the game! When the team has successfully returned, they put the balls back and then return to their start place – still in their hula-hoop.

5. At the start signal each team races to complete obstacle one. When they have completed it, they move on to obstacle two and then obstacle three.

6. The winners are the team that finishes all the obstacles in the fastest time.

Wrap Up

Discuss the following with the students:

True or False

- Vehicles are a major source of greenhouse gases – true. Combustion of fossil fuels is the leading source of carbon dioxide being added to the earth's atmosphere.
- Greenhouse gases are bad – false. Without the natural greenhouse effect the earth would be a chilly –18°C on average.
- Cleaning up the greenhouse gases will be easy – false. It will take a lot of work and cooperation from everyone to mitigate the effects of climate change
- There is not much one person can do – false. If everyone made a few lifestyle changes, some big and some small, we would see huge decreases in the amount of greenhouse gas emissions caused by humans.

The three obstacles cover the topics of recycling, carpooling and cooperation respectively. Brainstorm with students how these three topics are linked with the issue of climate change.

Assessment

Have students research transportation alternatives in your community. Suggested topics might include:

- Pedestrian friendly walkways and streets
- Regional cycling trails
- Transit systems including bus and rail
- HOV lanes
- Carpooling incentives
- Car Share Cooperatives
- School Bus programs

Extensions

In small groups, have students identify three topics linked to climate change and create their own obstacle course for the rest of the class to try.