Tools and Games

Game 1: Clean Air Shuffle	**Game 2:Clean Air Hopscotch**	**Game 3: Clean Air Obstacle Course**
Game 4: Trivia Tag	**Game 5: Air Care**	**Certificate**
Heart Rate Tally Sheet	**Number of Kilometres Walked/Biked Tally Sheet**	**Walk Across Canada Tally Sheet**

Game 1: Clean Air Shuffle

Objective:	Youth learn the value of teamwork and to appreciate how air pollution issues are interconnected
Space:	Large playing area
Equipment:	Large gym mats (for 6-8 participants) - two mats per group. Several sets of four coloured, tennis, golf, or small soft balls

Description:

- Divide participants into even-numbered teams of 6 to 8 participants (names reflect positive forces like " The Carpoolers").
- Establish a rectangular playing area with the start and finish lines.

Each team begins by standing on one mat at the start line - with the other mat directly in front of the mat they are standing on. When the activity begins, all members of each team will step on to the new mat (heading towards the finish). Once on, they must pick up the first mat, lift it over their heads, place it in front of them and continue the process towards the finish line. This will appear similar to a leapfrog activity. All team members must be on a mat AT ALL TIMES!

To add excitement the playing area becomes a polluted environment and the players attempt to cross over the pollution to a "Clean Air Environment". Depending on the number of teams, scatter varying sets of 4 balls evenly around the playing area to represent different types components of air pollution such as particulates, carbon monoxide, nitrogen oxides, and volatile organic compounds. As the students cross each polluted area, they must collect the type of "pollution balls" that have been assigned to their team. The team that collects all their pollution balls and makes it to the finish line before the others, wins.

Discussion

1. How can you help to clean up the air? Your school? Community?
2. In what ways does air pollution harm our health?
3. Why do you have to be careful during a Smog Alert Day?
4. Are there certain times of day that are better than others for playing or exercising outside?

Game 2:Clean Air Hopscotch

Objectives:	Reinforce air quality vocabulary
Space:	A large, flat surface for setting "board" i.e. gymnasium, paved yard, or hallway
Equipment:	Tape and/or chalk, small tokens for throwing

Description:
Hopscotch boards can be designed in different shapes and sizes for a variety of age levels and abilities and can be adapted to include both positive and negative aspects of air quality. The negative terms (e.g. chlorofluorocarbons) could be designed as squares you should not land on, and if you do, you must begin again. Chalk can be used to draw outdoor boards, and for indoor boards, masking or painters green tape works well (will not stick to floors).

Some word/term suggestions: chlorofluorocarbons, ozone, CO2, oxygen, trees, walk, emissions, fossil fuels, greenhouse gases, climate change, atmosphere, etc (see Terms of Reference Table)

Discussion:

1. Is it important to understand what smog and air pollution are all about? Why?
2. Can you make a difference or is the problem just too large?

Game 3: Clean Air Obstacle Course

Objective:	Youth learn to appreciate the complexity of the issues and how they can reduce air pollution.
Space:	Large recreation room or outdoor playing field
Equipment:	4 large sturdy hula-hoops, 32 bean bags, 4 large bins, 16 volleyballs, 5 pylons (or markers)

Description:

- Divide players into teams of four.
- Use pylons to define the four corners of the playing area and the centre. The obstacles should be setup in each corner near the pylons.
- Each team is assigned to one corner and at the start signal, each of the four teams completes all three obstacles in their corner.
- Each team must remain **inside a "carpool" hula-hoop during the entire game.**
- The winner is the team that finishes all obstacles in the fastest time.

Obstacle 1- Trash Toss. All members of each team stand in their hoop and throw two bean bags each into a recycling bin approximately 3 meters from their start point. Any missed bean bags must be retrieved by the team and re-thrown from the start point until all are in the bin.

Obstacle 2- Hustle Bustle. The teams must circle the outside of the playing area once, starting and finishing in their corner. They must go outside of all the pylons without disturbing the other teams, or letting the hula-hoop touch the ground.

Obstacle 3 - Hop & Clean. While still in their carpool hula-hoop, each team member must place a pollution particle (a volleyball) between their knees and hop with it from their corner around the centre pylon and back to their corner - any dropped particles must be retrieved and the team must re-start at the point where the ball first fell (supervisor may need to be referee at this obstacle).

Discussion:

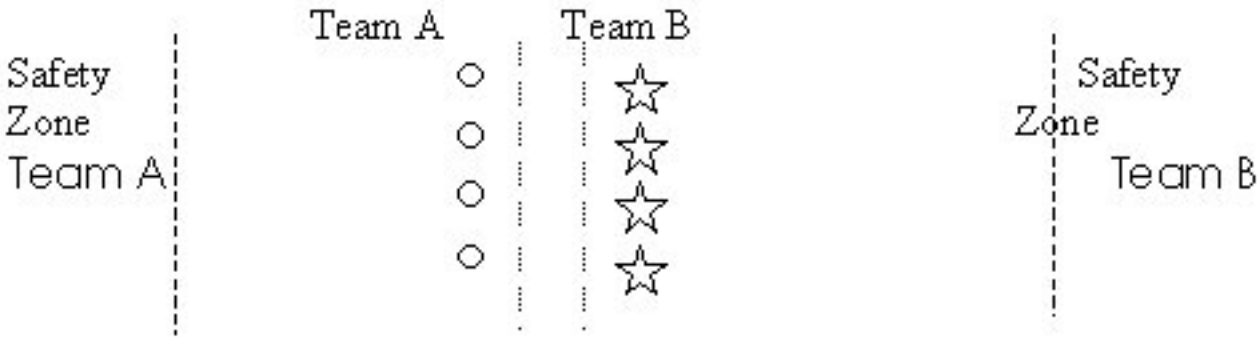
1. True or False?:
    - Vehicles are not a major source of air pollution
    - Airborne particles can cause lung damage
    - Trees do not help clean our air
    - Garbage dumps are a major source of methane gas
2. How can we cooperate to improve air quality?
3. How does carpooling improve air quality?
4. What are some of the transportation services/programs in your community that help reduce air pollution?

Game 4: Trivia Tag

Objective:	To confirm youth's understanding of air quality issues.
Space:	Large playing area
Equipment:	Eight pylons

Description:

- Divide group into two teams
- Set up a playing area by having two lines designated by pylons approximately 3 meters apart. Behind each of these lines set up another parallel line about 20 -30 meters back



The two teams (Team A and Team B) line up facing each other on their respective lines. The leader reads a question to which the answer is either true or false (see questions and answers supplied below). If the answer is true then Team A chases Team B and tries to touch them before they get back behind their safety zone. If the answer is false then Team B chases Team A and tries to catch them before they make it behind their safety zone. Once someone is tagged by a member of the opposite team they become that team's member.

After each question and chase, repeat the question and discuss the correct answer while the teams return to their starting positions. The game ends when all the players are on one team or when the questions have all been asked and the team with the most people wins. The questions can be adapted to suit specific levels of understanding, however, it is important to have an equal number of true and false answers.

Questions

1. Using less energy at home will help reduce air pollution. True
2. Carbon monoxide smells like burnt matches. False.
3. Air quality can be affected by climate change. True
4. Riding your bike to school is good for your health. True
5. Children are at less risk from air pollution than the average adult. False
6. Ground-level ozone is not a component of smog. False
7. Ground- level ozone protects us from ultraviolet radiation. False
8. People with asthma can be affected by air pollution. True
9. Taking public transportation regularly produces more air pollution than taking a car. False
10. Soot and dust are types of particulate matter. True
11. Sulphur dioxide is the main cause of acid rain. True
12. Transportation emissions are not important factors in air pollution. False.

Game 5: Air Care

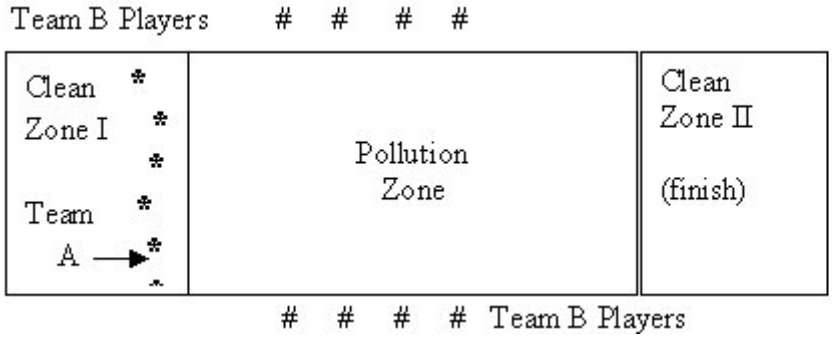
Objective: To bring attention to issues related to air pollution and its impact on health and the environment
Space : Gymnasium; large field; recreation room
Equipment: pylons, soft rubber or foam balls

Description:

- Players are divided into two teams with suitable fun names
- A rectangular playing area is marked out using the pylons

Team A lines up at one end of the playing area in the safe "Clean Zone I". The other team lines up on each perpendicular side of the playing area facing each other. The object of the game is for the team A to run across the playing area to the opposite "Clean Zone II" (see diagram).

As Team A tries to make it through the "Pollution Zone" safely, Team B members attempt to hit Team A with soft Nerf-type (soft foam) "Pollution balls". If a player is hit with a ball they join the other team. When all the players on Team A either reach the safe "Clean Zone II" or are hit by "pollution balls" the teams switch.



The process is repeated with each team. The supervisor is given the opportunity to increase or decrease the number of "pollution balls" handed out in order to simulate more or less air pollution. The more pollution, the harder it will be for the teams to make it to the "safe zones" without being affected.

Discussion:

1. What is the main cause of smog -- human activities or natural causes?
2. What are some human activities that cause air pollution?
3. What are some of the health effects of air pollution?
4. What can we do to reduce the amount of harmful gases and particulates released into the atmosphere?
5. What are the long -term effects a gradual warming of the earth will have on plants, animals and humans?

Certificate

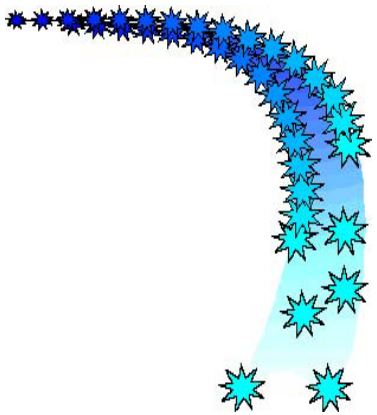
This is to certify that

_____

participated in the

_____

Walking School Bus Club.



_____ _____

Date Teacher

Go for Green

Heart Rate Tally Sheet

Heart Rate Tally Sheet

Name: _____

Record your heart rate as beats per minute.

Date	Prediction	Actual	Prediction(After 10 Minutes of Exercise)	Actual (After 10 Minutes of Exercise)

Number of Kilometres Walked/Biked Tally Sheet

Number of Kilometres Walked/Biked Tally Sheet

Name: _____

Date	Number of Kilometres	Total Kilometres to Date

Walk Across Canada Tally Sheet

Walk Across Canada Tally Sheet

Date	Gr.	Gr.	Gr.	Gr.	Gr.	Gr.	Gr.	Gr.	Gr.	Gr.	Gr.	Gr.	Total
Total													