

Teacher's Guide: "I Love Clean Air" Sticker Book

This elementary school-level sticker book has been developed by New York State Department of Environmental Conservation's (DEC) Division of Air Resources to promote clean air. It is designed as a classroom activity.

This Teacher's Guide provides supplemental information for teachers to use in classroom discussions and suggests further resources related to air quality, the environment and climate change.

"I Love Clean Air" activities meet NYS Learning Standards as follows:

Health, Physical Education & Family & Consumer Sciences

Standard 2- A Safe and Healthy Environment

Standard 3- Resource Management

Social Studies

Standard 3- Geography

Mathematics, Science & Technology

Standard 4- Science

Standard 7- Interdisciplinary Problem Solving

Activity: Don't Burn Trash

Burning trash is bad for the environment. Municipal waste incinerators operate at 1,800 degrees Fahrenheit to ensure complete combustion and use filters to reduce harmful emissions. Backyard burn barrels rarely exceed 500 degrees Fahrenheit, so combustion is incomplete and gives off twice as many furans, 17 times as much dioxin, and 40 times as much ash as a permitted incinerator.

Common items that people burn that they shouldn't include paper, plastic bags, food, bottles, cans, and magazines. Instead of burning trash:

Reduce: Change buying habits to reduce the amount of things you throw away. Refill your own bottle instead of buying bottled water in a disposable plastic bottle.

Reuse: Sometimes people can reuse things you don't need anymore. Donate or give away unwanted magazines, clothes, toys, etc.

Recycle: Recycling is mandated by law. Review with your class what items they can recycle at school.

Compost: Composting is a natural process of recycling nutrients, returning them to the soil so they can be used again. It can be made from materials that most households throw out, such as food wastes (except those that are animal-derived), yard waste, and some paper.

Be sure to close the loop by buying recycled materials, like recycled paper.

Activity: Be Cool-Carpool

Cars that run on gasoline release many hazardous chemicals and greenhouse gases into the environment. When you travel in a car with other people, instead of each person traveling alone, you are carpooling. Carpooling reduces the number of cars on the road and helps to keep the air cleaner. Reducing the number of car trips by combining several errands into one trip is another good way to help to keep the air cleaner.

An example of carpooling is riding with friends and family to fun places like soccer, baseball and school.

Activity: Stop Global Climate Change

Energy coming in from the sun passes through the atmosphere and warms the earth's surface. But when heat radiates back out from the earth, greenhouse gases prevent it from escaping. The earth is warming due to the increasing amount of greenhouse gases like carbon dioxide in the atmosphere.

A lot of greenhouse gases come from burning fossil fuels (coal, oil, and natural gas) to generate electricity and to power vehicles and buildings.

Other Resources

DEC's website has lots of information on climate change, clean air, motor vehicle emissions, burning trash, reducing, reusing, recycling and composting:
www.dec.ny.gov

This website has information for teachers, games, and links on climate change:
www.epa.gov/climatechange/kids/

Car and clean air information:

<http://www.epa.gov/otaq/consumer/18-youdo.pdf>

Burning trash information:

http://www.oag.state.ny.us/press/2001/feb/feb14b_01.html

<http://www.epa.gov/garbage/backyard/pubs/residents.pdf>

<http://www.epa.gov/garbage/backyard/health.htm>