



## Ready, Set, Stop Idling

By: The Clean Air Campaign, Inc. and Earth Day Network

### INTRODUCTION

Students will gain background knowledge regarding what is good for the air and what is bad for the air through class discussion and watching a short video clip. They will participate in an activity sorting cards that illustrate examples that are good and bad for the Earth and an activity acting out cars idling and not idling to gain an understanding of what idling is and how it pollutes the air. Student will make a drawing and write sentences on the topic of idling.

### LESSON OVERVIEW

**Recommended Grade Level and Subject:** Grade 1 Science

**Length:** 1 Class Period

#### Objectives:

After completing this lesson, students will be able to:

- Identify things that harm our air.
- Identify things that help our air.
- Understand how idling harms our air.
- Encourage No-Idling.

#### National Standards Addressed<sup>1</sup>:

This lesson addresses the following National Science Education Standards

**Content Standard:** [NS. K-4.1, NS.5-8.1 SCIENCE AS INQUIRY](#)

As a result of activities in grades K-4, and 5-8 all students should develop

- Abilities necessary to do scientific inquiry
- Understandings about scientific inquiry

**Content Standard:** [NS.K-4.6, NS. 5-8.6 SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES](#)

**Levels:** K-4

- Personal Health

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<sup>1</sup> Education World (2008) *U.S. National Education Standards*. Retrieved February 5, 2009, from <http://www.education-world.com/standards/national/index.shtml>.

- Characteristics and Changes in Populations
- Types of Resources
- Changes in Environments
- Science and Technology on Local Challenges

#### Materials Needed:

- Magazines, construction paper, scissors, glue, writing paper,
- Computer and internet access or printed information from website
- Black butcher paper (optional)
- Reproducible #1 - **Activity Cards**
- Reproducible #2- **Sorting Activity Cards**
- Reproducible #3- **Rubric**

#### Assessment:

- Participation in class discussion and class activities
- Completion of **Reproducible #1 Activity cards** class activity
- Completion of Drawing and Sentences Activity (See **Reproducible #2 – Rubric**).

## LESSON BACKGROUND

#### Relevant Vocabulary:

- **Air pollution:** Substances in the air that have harmful or unpleasant effects.
- **Idle or Idling:** Inactive, not in use, not moving or in operation.

#### Information:

<http://pbskids.org/seekoworld/index.html?load=air>

Watch video clip that contains background on air and air pollution.

Background Information: Sources of Smog, Air Quality, and Idling Information

<http://www.cleanaircampaign.com/Air-We-Breathe/Smog-and-Air-Quality/Sources-of-Smog>

<http://www.cleanaircampaign.com/Air-We-Breathe/Smog-and-Air-Quality/Smog-and-Your-Health>

<http://www.cleanaircampaign.com/Air-We-Breathe/The-Truth-About-Idling>

#### Resources:

<http://www.epa.gov/air/urbanair>

<http://www.epa.gov/airnow/aqikids/index.html>

<http://www.idlefreevt.org>

<http://www.mass.gov/dep/air/community/schbusir.htm>

<http://www.cleanaircampaign.com/Kids-Schools/The-Clean-Air-Schools-Program/Program-Components/No-Idle-Program>

## LESSON STEPS

### Warm-up: *Video Clip*

1. Show the quick video clip about air from the following website:  
<http://pbskids.org/eeekoworld/index.html?load=air>
2. Place a T-Chart on the board. Share with students that all living things need air.
3. Ask the following questions.
  - Are plants and animals living things?
  - Are you an animal?
  - We breathe air all the time. Do you think it is important to breathe clean air?
  - Do you think our air is clean?
  - Do you think people can help make the air dirty?
  - What are some things people do to make the air dirty?
  - What are some things people do to make the air clean?
  - Brainstorm a list on the T-Chart.

### Activity One: *Sorting Cards on T-Chart*

1. Examine the chart from the following website:  
<http://www.epa.gov/airnow/aqikids/index.html>.
2. Hold up one card from **Reproducible #1 - Activity Cards** for the class. Ask students what is going on in the picture. Ask students if they think the activity is good or bad for the air and why? Place the activity card on the correct side of the T chart.
3. Review all activity cards once they have been placed on the T-Chart.
4. With the activity card that says “idling,” take time to act it out.

### Activity Two: *Acting Like Cars*

1. Have kids take turns acting like a car. You may use black butcher paper to create “roads” through the room. They move around the room pretending to drive cars. Periodically, ask them to stop. Set the timer for various time lengths. If the timer is set for less than 30 seconds, they will not pretend to turn off their car. If the timer is set for 30 seconds or more and goes off while they are stopped, they must turn off their engines and stop idling. Point out when they are just sitting with the car running more than 30 seconds, all the pollutants are going into the air and they are not driving anywhere. Have students repeat this scenario until they understand the concept of idling.
2. Ask students if there are any places at school where someone would be sitting in their car for more than 30 seconds just idling.
3. If students do not know, suggest the car rider lane. Through discussion, student should realize that the car rider line is one place that a high volume of idling occurs.
4. Do you think this is good for the air at our school?
5. What could be done to teach people that idling is bad for the air?
6. Brainstorm ways to accomplish this task.

**Activity Three: *Drawings and Sentences***

1. Have students create signs or flyers.
2. They should first illustrate a car idling.
3. Have students write sentences educating people about idling and asking them to stop idling.

**Extension: *No Idling Campaign Toolkit***

1. Students will extend the No Idling Campaign by obtaining a toolkit available from Earth Day Network, including signage and pledge cards: [www.earthday.net/noidling](http://www.earthday.net/noidling).
2. Students may be provided with magazines. Students will cut out pictures and create a collage on folded paper. One side will state things that are good for the air. The other side will state things that are bad for the air. Student will cut out and glue pictures on each side.

**CONCLUSION:**

At the conclusion of this lesson, students will be able to communicate information about idling at your school and the impact of idling on air pollution and will begin a campaign of education and awareness at your school.

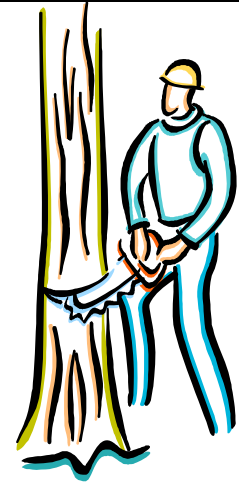
## Activity Cards



Carpooling



Planting Trees



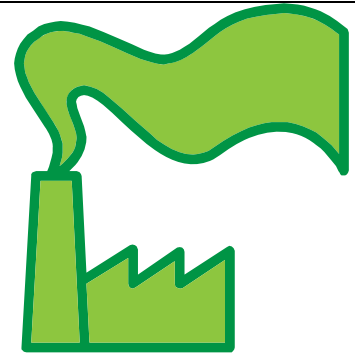
Cutting Down Trees



No Idling



Idling



Factory

## Rubric

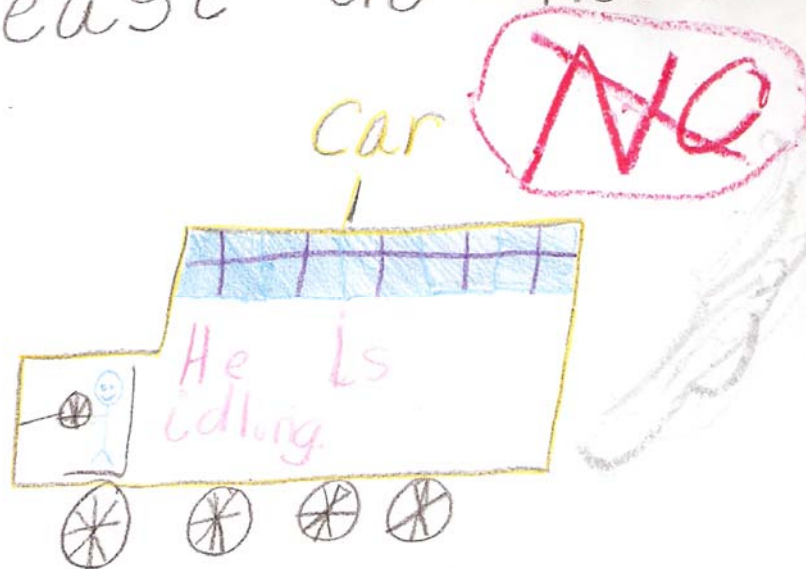
| Does not Meet                  | Meets                    | Exceeds                           |
|--------------------------------|--------------------------|-----------------------------------|
| No Picture                     | Picture Related to Topic | Detailed Picture Related to Topic |
| Less than 3 Sentences on Topic | 3 Sentences on Topic     | More than 3 Sentences on Topic    |

**Teacher Commentary:** This was a great lesson to introduce 1<sup>st</sup> graders to idling! They truly understood after pretending to be cars idling and not idling. They enjoyed the activity. It was a good connection to writing about something meaningful that impacts their life and trying to change it for the better.

**Sample Student Work:**



Please do not idle.



Idling is not good for the  
air - PLEASE do  
not idle - Idling  
waste money.





Idling is bad.

Idling makes the air  
dirty, pretty please don't  
idle. We breath air so  
don't idle alot.