

## **Our Air: The Quest for Quality**

Grades: 6th-8th Grade

Subjects:

Language Arts, Library / Technology, Philanthropy, Science and Social Studies

Key Words/Concepts click to view

### **Unit Purpose:**

Air pollution is an international concern, with our learners serving as the next generation of stewards for our precious resource. At the heart of this unit is inquiry as learners see the connection to their personal health, develop a knowledge base about air quality issues, and role play an authentic scenario to develop solutions for improving air quality in our local and world community. This unit will also serve to encourage an effective response and motivate learners to act upon this new understanding for the common good.

**Focus Question:** What can we do to preserve air quality for present and future generations?

### **Unit Objectives:**

The learner will:

- state examples of common resources in the environmental community.
- describe the impact of air pollution upon human health.
- identify common air pollutants, their sources and effects.
- explain how people and corporations can promote clean air.
- research issues related to air pollution.
- collect and share key data in response to a research question.
- compose a report to include research information.
- collaborate with peers to discuss air quality issues, stating opinions with supporting rationale.
- identify rights and responsibilities of various groups concerned with air quality standards.
- respond to literature orally in group discussion.
- make text-to-text and text-to-world connections.
- use critical thinking skills to engage in brainstorming, problem solving and decision making.
- use speaking and dialogue skills to present and respond to ideas.
- use consensus or voting to recommend a final plan of action intended to move "their community" into compliance with Air Quality Standards.
- be encouraged to develop a personal plan of action to improve the quality of air for the common good.

### **Service Experience:**

- Although lessons in this unit contain service project examples, decisions about service plans and implementation should be made by students, as age appropriate.
- Allow learner interest and conviction to lead in choosing one or more of the following Academic Serving Learning opportunities to ensure maximum participation and successful outcomes.
- The learners can work in "mission groups" and report back to peers about progress.

### **Direct Service Options:**

- Engage in Air Quality Testing (the EPA, Departments of Environmental Quality and Meteorological Stations can be an excellent resource)
- Participate in Ozone Action Days (inform the community – get the word out, take surveys about how and how frequently individuals participate)
- Check the AQI daily
- Contact a local garden club or other environmental organization to plan trees and shrubs.
- Raise money and plant trees in shrubs in a local beautification project (school or community based)
- Start an educational campaign about open burning (dos and don'ts)
- Start a vermin composting project within the school or local community

[www.dnr.state.wi.us/org/caer/ce/eeek/earth/recycle/wormcomp.htm](http://www.dnr.state.wi.us/org/caer/ce/eeek/earth/recycle/wormcomp.htm).

#### **Indirect Service Options:**

- Follow environmental air quality issues in local, state and national publications. In response, learners can write letters to the editor and/or state representatives regarding air quality.
- Raise Money to Donate to Environmental Groups/Causes such as:
- Follow environmental air quality issues in local, state and national publications. In response, learners can write letters to the editor and/or state representatives regarding air quality.

1. Diane Fossey Gorilla Fund
2. World Wildlife Fund
3. Earth Trust Sierra Club
4. Friends of the Earth International
5. National Wildlife Federation
6. National Geographic
7. National Audubon Society
8. Greenpeace International
9. or countless others.

- Learners can research the cause and engage in a decision making process about which addresses air quality in the most effective manner.

#### **Advocacy Options:**

- The learners can create posters or flyers to promote fifty things people can do to reduce air pollution in their communities and then contact the local businesses to display them  
[www.arb.ca.gov/html/brochure/50things.htm](http://www.arb.ca.gov/html/brochure/50things.htm).
- The learners can create posters or flyers to promote fifty things people can do to reduce air pollution in their communities and then contact the local businesses to display them .

#### **Unit Assessment:**

In addition to the formative lesson assessments, learners will engage in a summative unit assessment which will take place following the third lesson using the format of a self-evaluative reflection (see **Lesson Three: Attachment Four**).

#### **School/Home Connection:**

##### **Class/School Newsletter Information Insert:**

Challenge yourself to notice the air we take for granted. You and your child will have an opportunity to join us as we observe the countless forms of air pollution that occur both naturally and as a result of human activity. You are invited and encouraged to take an active role as a parent and concerned citizen. Learners will learn how our health is affected, engage in research about air quality concerns, and take an active role in our academic service learning, with opportunities for direct service, indirect service and advocacy. For "Fifty Things You Can Do," log on to [www.arb.ca.gov/html/brochure/50things.htm](http://www.arb.ca.gov/html/brochure/50things.htm). Our goal is that learners are inspired to become a positive force as stewards of our Earth – one breath at a time!

##### **Interactive Parent/Learner Homework:**

Utilizing the Parent/Learner Homework Reflection -"Every Breath You Take"- (see **Attachment Three**), the learners will be required to observe, record, and share scientific data of air pollution incidents in their daily lives

**Notes for Teaching:**

- If available, secure the use of a computer lab for learner access for all three lessons.
- Obtain a copy of Dr. Seuss' *The Lorax* in video or book format (for Lesson Three).
- For the role cards in **Lesson Three**, number each set copied so learners can meet with like roles for discussion, then create a diverse group as indicated by their number set.
- The website [www.epa.gov](http://www.epa.gov) is one of the most valuable and comprehensive internet resources to use throughout the unit.
- There are a few extension suggestions for guest speakers. Plan accordingly for their visits if you choose these extension opportunities.

**State Curriculum and Philanthropy Theme Frameworks:**

See individual lessons for benchmark detail.

Lessons Developed By:

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