



EDUCATOR'S GUIDE TO *AIR* – THE SEARCH FOR ONE CLEAN BREATH

Since its premiere in 2008, the District film, *Air – the search for one clean breath* has been screened worldwide for thousands of viewers. But there is something new. Not only has the film received the prestigious United States Environmental Protection Agency's Clean Air Excellence Award, and the international 2009 Mercury Communications Gold Award of Excellence, but a new guide for middle and high school instructors is now available. It is an innovative way to increase our film's reach and educate students nationally about this precious natural resource.

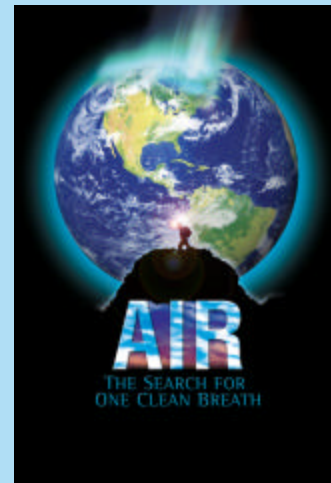
The Guide, and accompanying classroom lessons, will enable students to not only see the film, but understand more about air quality by expanding upon the material presented in the movie. The project was directed by Barbara L. Page, public information manager of California's Ventura County Air Pollution Control District's public information division. It was coordinated by the California Regional Environmental Education Community (CREEC) and written and field-tested by classroom teachers.

ABOUT THE LESSONS

The Guide contains nine original lessons that meet many national educational standards. Since the lessons are on the film's website, www.airthefilm.org, they are easily available for teachers to download anywhere in the United States. As part of the project grant from the United States Environmental Protection Agency, the District was responsible for giving each air agency in the country a copy of the DVD. In addition, many air districts nationwide have bought more copies to give to teachers in their areas.

Lessons include - -

- **Navigating Opinion in Search of Facts** - - (*History/Social Science/Economics*) Students use the Socratic Method to investigate global climate change. They evaluate issues of public concern and differentiate between data supported hypotheses and claims based upon opinion.
- **Commuter Match & Math** - - (*Science & Technology/Geography/History-Social Science*) Students learn about vehicle types and the carbon dioxide emissions they produce. Then, they test their knowledge with a classroom commuter activity that applies what they learned. They must decide how to reduce the use of gasoline and production of carbon dioxide.



The award-winning film, *Air – the search for one clean breath* asks a vital question: How has air evolved and what does it mean for our human experience? Filmed in high definition, the 41-minute film traces the history of air. Viewers will visit a deserted steel mill in Utah, the continent of Antarctica, and the zero carbon community of London's BedZED. With state-of-the-art animation, an inspired soundtrack, and stunning visuals, the film gives new insight into this natural resource. Seen by viewers worldwide, this film is now available to classroom instructors.

- **Taking Action** - - (*Geography/Science*) Students develop an action project to promote greenhouse gas emission reduction. They look at their own lifestyle to determine what they can do to reduce air pollution and greenhouse gases. Groups of students develop a community project to help air quality their area.
- **Analyzing Energy** - - (*Science & Technology*) Students analyze the advantages and disadvantages associated with various energy sources: coal, natural gas, hydrogen, geothermal, hydropower, oil, solar and wind power, and nuclear energy.
- **Where does our Pollution go?** - - (*Science*) Students use maps showing global air currents to trace the movement of pollutants around the globe, showing how one city's pollution can affect the lives of others around the world.
- **Our Energy Diet** - - (*Science & Technology/ Geography/History-Social Science*) Students explore the population of various countries and their oil consumption using graphs. They then determine ways to reduce energy use and their own impact on the environment.
- **Effects of Global Warming** - - (*Science & Technology*) Students read information on climate change and its effects on hurricanes, wildfires, animal populations, human health and allergies, and sea levels. They complete a graphic organizer and do an analysis of the causes and implications in small classroom groups.
- **Carbon Dioxide in Ice Core Samples** - - (*Science & Technology*) Students make scientifically based observations with frozen ice cores, quantify data, do hands-on data collection, chart data into a graph, and analyze data from the graph.
- **Air Pollution Tragedy: A Case Study** - - (*Science & Technology/Ecology*) Students review historic accounts of Belgium's Meuse Valley air tragedy, to build awareness that many disciplines and areas of interest can contribute to solving a public problem.

FIELD INSTRUCTOR COMMENTS

"Lesson content – excellent. Ease of delivery – excellent. . . students want to know what they and society can do to make changes."

-Diana Petropulos, Santa Paula High School, Santa Paula, CA

"Discussion information connected well with Standard F – Environmental Quality, Human induced hazards. . . the content is important and is covered in our general 9th grade physical science."

-Lorraine Wood-Newbury, Rio Mesa High School, Oxnard, CA

"Overall the lesson was excellent as regards content, supporting materials, ease of delivery, and grade/subject appropriateness. The students felt they learned a great deal. . ."

-Mark Schmidt, Ventura High School, Ventura, CA

"The lessons were straightforward and grade appropriate. All of my students seemed confident that they would see a significant shift away from fossil fuels in their lifetime."

-John Forte, Atascadero High School, Atascadero, CA

"The lesson content was excellent. It fits in perfectly with ecology and meets state standards. The students made a clear connection between the activities and the film. What is nice about the film and activities is that you can also present them independently from each other."

-Nathan Inouye, Adolfo Camarillo High School, Camarillo, CA

"The movie is great, and the experiment with warm and cold water was a great visual! The standards tied in perfectly with the lesson."

-Josh Rubin, Woodside High School, Woodside CA

To download the entire Guide or individual lessons, and for more information, visit www.airthefilm.org.

Message from Barbara L. Page, public information manager, Ventura County Air Pollution Control District

Here in Ventura, we are so pleased to present these student air quality lessons to middle and high school instructors, not just here in California, but nationally as well. The response to our film, *Air – the search for one clean breath*, has been overwhelmingly positive and this new classroom guide is really exciting. Since it was written and field tested by teachers, we know that the lessons work in the classroom. It is our hope that the film, and these accompanying lessons, will give students a new understanding and appreciation of "air" and what we can do to guarantee healthful air quality for all of us in the years to come. It was a pleasure to work on this project with CREEC, and I hope to hear back from you about your experience with the Guide. You can contact me at barbara@vcapcd.org