

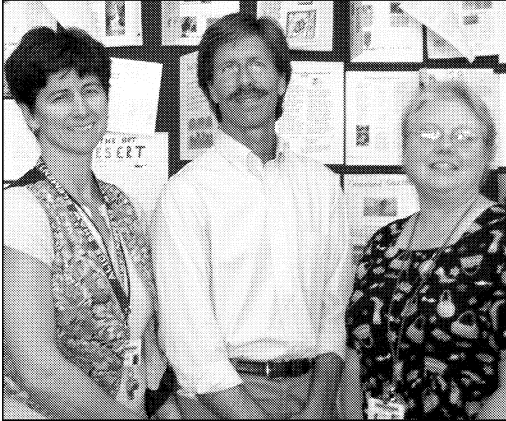
# Elementary

## Connections, Choices & Conservation

David Greenelsh, Debbie Hart, Valerie Trenev

Grades K-8: Integrated Environmental Education

Business Partner: SB County Air Pollution Control District



### HOW IT WORKS

**C**onnections, Choices, and Conservation for a Healthier Tomorrow is an integrated project that helps students connect the choices they make to support their lifestyles, and the impact those choices have on the environment and personal health.

The project is done in three phases: 1) build the **connection**; 2) **educate** for better choices; 3) emphasize the concept of **conservation** in improving the health of the environment.

Because some of our students suffer from asthma, we decided to focus on air pollution. We examine printed material about the subject, and discuss air quality in our region and around the world. We discuss fossil fuels, global warming, factory emissions, smog, acid rain, and greenhouse gases.

We decided on two ways to educate others: a website and a Day of Awareness. On the website, students write personal reflections about air pollution, and create pictures of future solutions (non-polluting cars, etc.). Our Day of Awareness is a big hit! Over two days, we conduct tours of our displays, including a loaned Ford hybrid Escape, promote petitions

on global warming, and become student experts for the Box, a traveling museum dedicated to conservation.

### WHY IT WORKS

**C**onnections, Choices, and Conservation for a Healthier Tomorrow targets California Standards in reading comprehension, public speaking, and writing as students build the website, read tour scripts, study textbooks and other source materials, and interpret information presented in the Box panels. Sixth grade students demonstrate that ownership of the project makes them very familiar with the concepts presented. As other teachers participate in the Day of Awareness, they are also motivated to become more active in the movement.

### THE STUDENTS

**I**n 2004-2005: 103 sixth graders functioning as tour guides, K - 5 students participating as guests of the tours, from all achievement levels, participated in this project.

### WHAT YOU NEED

**C**lipboards (to hold the tour scripts), poster boards (to guide the guests on the tours), construction paper, paint or markers, publications and give-aways from public agencies, display model of pertinent materials such as energy efficient light bulb, Ford Escape from dealership, etc. to enhance the experience of students and teachers at each of our displays.

### ADAPTATION TIPS

**W**e chose to focus on air pollution, so current events in the newspaper regarding global warming and greenhouse gases were part of our displays and information on our website. It is good to include what is relevant in the news because people are talking about it. Teachers can choose to set things up like an Earth Day event, which includes tours and other interactions at the tables, or could make it more of a display, with posters and visuals only.

### THE STAFF

**V**alerie teaches math and science, and is very involved in environmental education. Debbie teaches language arts, and David teaches social studies. All three teachers have worked as a team to implement and support each other on the project. A spirit of cooperation is essential to success.

## For More Information:

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Connections, Choices and Conservation

## How to Make It Happen

by

Valerie Trenev

Debbie Hart

&

David Greenelsh

- I. Deciding to Become Active - identifying the goal
- II. Collecting Information and Materials that will make you (the teacher) more informed and can be shared
- III. The Idea Web - Something for Everyone!
- IV. The Team Approach - Kids Teaching Kids
- V. Using Our Talent - Art work, videos and skits
- VI. The Big Day or Week!
- VII. Across the Curriculum
- VIII. Recognition from the Community - Awards and Grants

## I. Becoming Active - Identifying the Goal

Our world is a rapidly changing place. Issues concerning our environment that have never come up before are suddenly catching our attention and begging for our response. There are so many areas where the environment is being compromised, but one that particularly grabbed our attention is the air that we all breathe. There is an urgent need to understand and prevent how our precious atmosphere is being altered and the health of our children is being compromised.

The most important factor in making a project like this occur, is to have passion for what you believe in. We have a moral responsibility to help preserve our environment for the future. By becoming informed, we can make choices that will help to ensure a healthier environment for current and future generations, serve as a resource of information to others and most importantly, be a positive role model to our students and the community.

The following sources of information helped to form our basis for our team choosing to do our project:

1. Newspaper articles from a progressive, larger publication. (ie. Santa Barbara Newspress).
2. National Geographic Magazine issue on global warming - Sept. 2004
3. Internet article on Air Pollution.
4. Two videos from the Air Pollution Control District
  - What Air Pollution is Doing to Our Children
  - Health Effects of Smog(presented at the CSTA conference, San Jose, CA October 2004)
5. The book: The Future of the Earth by Yann Arthus-Bertrand

## II. Collecting Information by Valerie Trenev

As a citizen, I choose to read the daily paper. There is a lot of information about the environment in the newspaper. I read and cut out the articles that pertain to the environment. I place these articles into plastic sleeves and into one inch binders. These are labeled by topic and easily accessible. My topics include air pollution, global warming, water pollution, soil pollution, politics and recycling.

I have also received some wonderful ideas that formed the basis for projects, by attending conferences. Motivational speakers, informational workshops and publications available at the conferences have helped me greatly by inspiring me to choose to respond to these issues, and to share my knowledge.

I share these articles with my students and this forms the basis for a discussion. The students then, return home and share the information with their families. It all has to start with the teacher. By becoming informed educators, we can help to shape public opinion about this serious risk to our health. For example, the quality of our air affects our students in many ways. Respiratory illnesses, allergies and asthma all contribute to many lost days of learning.

By helping students to care for their health, and in turn, help to educate families about how they can help to preserve our environment, we as educators are helping to protect our environment in a very positive way.

As a class, we learned about air pollution in the following ways:

- sharing articles from the newspaper
- watched the videos about air pollution
- discussing as a class, how air pollution can affect us

(Please note, all topics presented, shared and discussed are related to the sixth grade science curriculum.)

To share a sample article, I hold it up, and refer to it, as I summarize the content. I then pass the article around the room, and students can see it up close. Students then ask questions and elaborate on the content. We try to relate it to their own experiences.

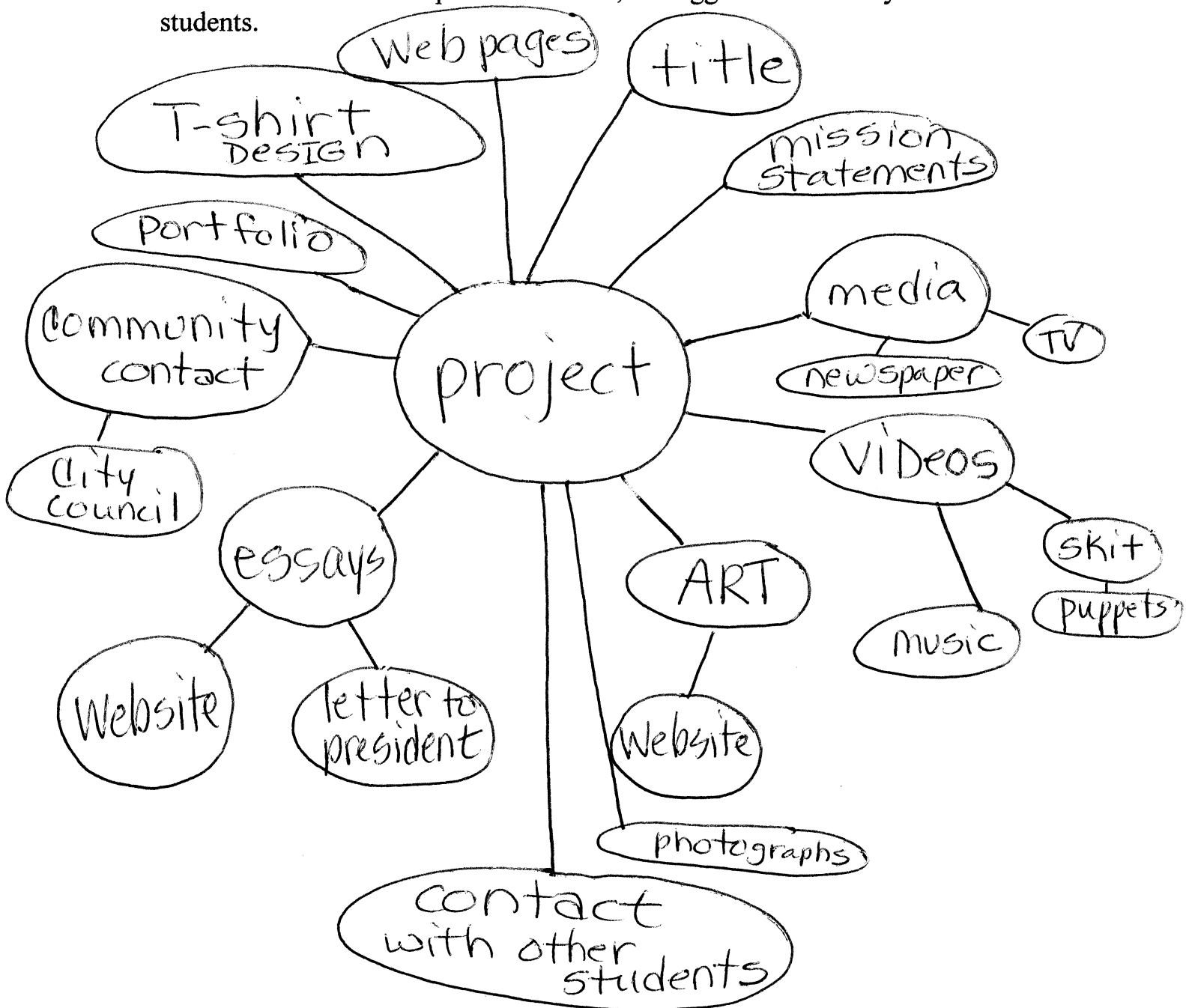
Whenever I am traveling, I always am on the lookout for magazine articles, books and publications about the environment. Large, picture books are especially helpful.

Not everything I read can be shared "as is" with the students. I have to keep in mind that some of the material could be upsetting to them. I present the content in a neutral way, and let them talk about it.

### III. Idea Web - Something for Everyone

After establishing a title and a mission statement to clarify exactly what we are trying to achieve, then students can jump in with their suggestions as to how each can contribute.

There are many ways that each student can participate and contribute. Not everyone wants to be a writer. Some may choose to contribute art work. Others may want to make a music video. Still others may want to design a website. Below is a sample web of tasks, all suggestions made by the students.



#### IV. Team Approach - Kids Teaching Kids

We all know how busy teachers are. The last thing we need is more to do. These projects are "kid" driven. They are the ones to create, execute and present. By guiding them slightly, they have ownership of their work. I support them by helping them to go in the right direction.

<u>Sample Task</u>	<u>Teacher Role</u>	<u>Student Role</u>
build website	do a web of ideas	sketch home page
music video	suggest ideas for script	write out script
	film and edit production	perform live or on tape
art work	scan onto website	log on at home/tell others

## V. Using Our Talent

We have used the following in doing our project:

- building a website - includes art work, essays and innovative design ideas
- drawing posters for our Earth Day style event
- building a portfolio of the work
- writing persuasive letters to the president
- having a petition about global warming circulated
- tours of our stations for younger classmates
- table top displays of information
- drama and musical video productions on the topic

## VI. The Big Day

We had our event on our blacktop. We invited the rest of the school to tour through our displays. Our sixth graders functioned as tour guides and presenters. We needed the following supplies:

- pretest material (to assess prior knowledge)
- scripts for each station
- large tables
- giveaways from public agencies (coloring books, key chains, candy)
- materials on top of the table pertaining to the topic at each station
- cones to direct the flow of foot traffic
- posttest material (to see how effective we were)

## VII. Across the Curriculum

There are many ways to extend what we have done into other areas.

### Social Studies

The effect of air pollution on ancient artifacts and relics; the effect of acid rain on buildings and statues.

Exponential population growth and how resources have dwindled in response to the heavy demands upon it.

### Language Arts

Writing applications for this material are numerous. Children need ways to express themselves. We had essays on our website. Topics for in class essays can include the following:

- how would you feel if you could not participate in sports due to a respiratory illness caused by pollution
- how can our community help to clean up our air
- how can we as voters make a difference in forming laws to protect our environment?

## VII. Recognition from the Community - Awards and Grants

So many private and public companies are anxious to support efforts in the classroom that promote the common good and protect the environment. I have participated in several with very rewarding results. It is incredibly exciting to have students anxiously awaiting word on whether or not their project has been selected as a winner. It builds teamwork and cohesiveness in the classroom and provides a year of excitement and stewardship that those young people will never forget. There are opportunities also, for the teacher to receive both financial awards and rewards in the form of materials. Using the ideas shared above, I/we have earned the following awards:

Jiminy Cricket - 5th grade Second Place in the state 2003 - \$500.00

Jiminy Cricket - 5th grade Third Place in the state 2004 - \$500.00

Jiminy Cricket - 5/6 combo Top Five statewide/Regional Winner - \$500.00

A + for Energy 2005 Teacher Winner - \$10,000.00 for classroom expenses

SBCEO Grant 2005 - \$1,500.00 Recycling Rangers to the Rescue  
(team grant)

SBCEO Grant 2005 - \$1,500.00 Connections, Choices and Conservation  
(team grant)

Society of Petroleum Engineers Oil Poster Contest

2nd place overall - \$350.00 2000 Honorable Mention - \$100.00 1997

2nd and 3rd place overall - 2005 \$1,600.00

Fundraising:

2005 - \$300.00 for tsunami victims - Red Cross

2005 - \$200.00 for victims of the war in Sudan - Americares

2005 - \$600.00 for orphans in China - Love Without Boundaries