

Fuels of the Future

by Brooke Ross

For some schools, protecting the environment starts in the classroom.

Fifth graders at Carolina International School (CIS) have a goal this Earth Day [2007]-to throw away as little trash as possible during lunch. To get their message across, students will encourage their peers to recycle. "I celebrate Earth Day every day," Nirvanna Madho, 10, told *WR News*. "I really don't throw anything away."

Participating in a zero-waste lunch is just one of many ways students at the school in Harrisburg, North Carolina, work to better the environment. Each April, the school organizes an Earth Day event. Students rotate through stations set up across the school's 36-acre campus, which includes forests and **wetlands**. Wetlands are moisture-rich lowland areas such as swamps or marshes. Students take part in hands-on environmental activities from testing water quality to checking out the latest models of battery-operated cars.

This year [2007], Earth Day at CIS kicks off a season of change. The school is preparing to go "green" with a major construction project,

set to begin early next year. Being green means protecting the world and its resources. The school's Earth-friendly makeover will include outdoor **solar**, or sun-powered, lighting and rooftop gardens. A water recycling system and other features to protect natural resources will also be built. The lobby will include a flat-panel touch screen on which students can watch how energy is being **conserved**, or saved, at their school.

"It's very important to educate children about environmental issues," says principal Deanna Duncan. "If we don't take care of [Earth], there isn't another one."



Jean-Phillippe Arles

Hoover Dam generates clean energy by using water to spin turbines.

Schools to the Rescue



photos.com

These wind turbines convert wind into electricity.

CIS is just one of hundreds of schools in the United States that are going green. A **green school** is built with recycled and environmentally friendly materials. Green schools are designed to use less energy than traditional school buildings.

The majority of the energy supply in the United States comes from the burning of **fossil fuels**, such as oil, coal, and natural gas. Fossil fuels were formed from the remains of prehistoric animals and plants. People use fossil fuels when they drive their cars, heat their homes, and power farms, factories, and cities.

Though people depend on fossil fuels, those energy sources have their drawbacks. Burning fossil fuels pollutes the air and releases gases that contribute to **global warming**, the gradual rise in Earth's average temperature.

Friendlier Fuels

Fossil fuels are gradually being used up. To conserve them, scientists are looking to renewable energy sources. **Renewable energy** is power from sources that can't be used up and do not pollute the environment. Water, wind, and solar power are types of renewable energy.

President George W. Bush announced an energy plan that calls on lawmakers to ensure that ecofriendly fuels are developed and made easily available to Americans. Gas is a fossil fuel used in cars, and the price to fill up a gas tank is rising. Gas costs about \$3 a gallon in some parts of the United States [2007].

At CIS, students are excited for construction to begin on their new school building. "I think the school is going to be a lot better," Drew Barsody, 10, told *WR News*. "I'm looking forward to seeing the solar panels."

Clean Power

Here are some common environmentally friendly energy alternatives.

Solar Power: Solar energy can be converted into other forms of energy, such as heat and electricity. California and Arizona are two states that use solar power. One drawback of solar power is that energy can't be collected if the sun isn't shining.

Wind Power: Energy produced from windmills is used to generate electricity. The amount of electricity generated from wind has been growing in recent years, tripling since 1998 in the United States. Electricity is produced from wind in 30 states, including California, Texas, and Iowa.

Water: Water power, or hydropower, is one of the oldest sources of energy. Hydropower often comes from dams or waterfalls. Of all renewable energy sources, it is most often used to generate electricity. In 2004, it accounted for 7 percent of all the electricity generated in the United States.

Ethanol: Ethanol is a clean-burning fuel that can power cars. It is created from several sources, such as corn crops. Typically, a small amount of ethanol is combined with gasoline to fuel vehicles. That helps decrease the fuel's cost and harmful emissions.

alternative al · ter · na · tive

Definition

noun

1. one of two or more choices.

Our two alternatives are walking or taking a taxi.

adjective

1. different in a way that gives you a choice.

Paying by credit card and paying in cash are alternative ways to pay for something.

Advanced Definition

noun

1. one of two or more possibilities; option.

What do you think is the best alternative?

2. the choice of one or more options.

I'm sorry to do this, but I have no alternative.

The store gives customers the alternative of paying with a credit card or in cash.

adjective

1. being one of two or more possibilities.

Scientists in India offer an alternative explanation for this phenomenon.

2. offering or allowing a choice.

The store offers alternative payment methods.

3. nontraditional or unconventional.

He expresses his unique views in an alternative newspaper.

The hippies of the 1960s were not the first Americans to have an alternative lifestyle.

Spanish cognate

alternativo: The Spanish word *alternativo* means alternative.

These are some examples of how the word or forms of the word are used:

1. Almonds' soft texture and mild flavor makes them ideal for blending into a dairy-free milk **alternative**.
2. Horticulturalists took note of this development and began experimenting with **alternative** methods of growing rhubarb plants.
3. The incredibly high demand for oil allows for only modest decreases in price even if **alternative** suppliers arise.
4. We have always said that in our war with the Arabs we had a secret weapon - no **alternative**.
5. There are a number of ways to treat "trich," including therapy, medicines such as antidepressants, and **alternative** methods such as yoga and vitamins.
6. Proponents of increased offshore drilling argue that developing **alternative** domestic supplies of oil to compete with international suppliers will drive down the average cost of gas.
7. Through advances in research of **alternative** energy sources, the world is slowly changing from using fossil fuels to using wind power, water power, and solar energy.
8. He knew only the basics about his mom's profession, but was becoming more and more interested in **alternative** energy after living in Los Angeles for so long and experiencing the pollution and smog in the air.

Name: _____ Date: _____

1. The Carolina International School is more Earth-friendly than typical schools because

- A. it celebrates Earth Day
- B. the building will be reconstructed so it uses fewer resources.
- C. the students participate in zero-waste lunch.
- D. all of the above.

2. At green schools, the buildings use _____ than typical schools.

- A. more coal
- B. more solar energy
- C. more electricity
- D. more oil

3. _____ is a renewable resource that is providing electricity in over half of the United States.

- A. Solar power
- B. Wind power
- C. Ethanol
- D. Hydropower

4. _____ is a better resource to use than _____ because it will not run out.

- A. Coal / hydropower
- B. Oil / ethanol
- C. Solar power / oil
- D. Natural gas / wind power

5. What could your school do to become more Earth friendly?
