Schools Goin' Green!



Making a Difference and Educating our Community Together

Schools Goin' Green!

Who We Are

Schools Goin' Green (SGG) is a multi-year program sponsored by the cities of Sunnyvale and Cupertino, and funded through a grant by the Santa Clara Valley Water District. The program's goal is to assist local youth in implementing student-led campaigns. These campaigns focus on cleaning up litter and educating their fellow students to lead environmentally conscious lives.

SGG Schools Taking Part

- Columbia Middle School Green Squad (Flex Class)
- Cupertino Middle School Go Green/Gardening Club and Paws for the Environment
- Fremont High School ECO Club and Acting to Protect the Environment
- Homestead High School Key Club and Green Ops
- Peterson Middle School
- Sunnyvale Middle School Go Green/Builders Club

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Pollution

The Basics

Pollution, we hear about it all the time and read about it in newspapers. So what is it? Pollution occurs when items contaminate the natural surroundings, which brings about changes that affect our normal lifestyles. In simple terms, pollution means getting something dirty.

Pollution in our air, land, and water is one of our most pressing environmental challenges. While it seems like a big thing to stop, there are many simple ways to make a difference. In this booklet we will share some of the things we have learned and tips that will help stop pollution.



Air Pollution

Automobiles and airplanes emit harmful pollutants into the air. Additionally, burning fossil fuels (coal, petroleum and natural gas), emits harmful greenhouse gases into the atmosphere. Not only is air pollution harmful to the earth, it is also a public health hazard.

Facts

- In America over 50,000 people are killed every year due to air pollution.
- Air pollution can cause effects of burning eyes, itchy throats, and breathing problems.
- Inhaling air pollution takes away at least 1-2 years of a typical human life.
- Air pollution in China can travel to the Central Valley of California.
- Toxic air pollution poses a greater threat to children due to their smaller physical size and lung capacity.



Land Pollution

Litter and Landfills

I don't fight often. But when I do, I fight litter.



Litter is a devastating form of land pollution that can be avoided if people responsibly dispose of their garbage. Every year billions of dollars are spent to clean up litter in the U.S. Litter harms natural habitats, endangers humans and wildlife, and eventually ends up in the ocean.

- Due to land pollution, the earth loses approximately 25 billion tons of topsoil each year.
- More than 1 million pounds of garbage are thrown out of car windows by Americans each year.
- Each year, Americans add 1.8 billion disposable diapers, 30 million foam cups, and 220 million tires to landfills.
- Over 80% of items in landfills can be recycled, but they're not. Why? People choose not to.
- 5 The main human contributor to pollution is landfills.

Water Pollution

Water pollution is caused when litter, fluids from automobiles, toxic industrial waste, or other harmful substances end up in our waterways. Managing the waste we generate in a responsible way can reduce the water pollution we create and keep our groundwater, lakes, rivers and oceans clean and healthy.

- Fourteen billion pounds of garbage (mostly plastic) are dumped into the ocean every year.
- In America, 40% of the rivers and 46% of lakes are polluted and are considered unhealthy for swimming, fishing, or aquatic life.
- 3 15 million children under the age of 5 die each year because of diseases caused by drinking water.
- 4 80% of the water pollution is caused by litter ending up in storm drains.
- About 700 million people worldwide drink contaminated water.



Great Pacific Garbage Patch



The Great Pacific Garbage Patch is a mixture of marine debris in the North Pacific Ocean. Marine debris is litter that ends up in oceans, seas, and other large bodies of water.

The patch was formed gradually as a result of marine debris gathered by ocean currents. The Great Pacific Garbage Patch, also known as the Pacific trash vortex, is located between Hawaii and California. When currents shift, debris can end up on beaches in Hawaii.

The amount of debris in the Great Pacific Garbage Patch accumulates because much of it is not biodegradable. Many plastics, for instance, do not wear down; they simply break into tinier and tinier pieces.

The patch is not visible from Google Maps. A majority of the debris is composed of smaller pieces that are floating in the water columns.

Simple Ways to Help Stop Pollution

Air Pollution

- Do all of your errands in one day trip. This saves money and prevents air pollution.
- Two of the best ways to reduce air pollution are walking and riding your bike.
- Try to carpool with someone when going to school or work.
- Switching to more efficient and cleaner fuels from solid fuels (wood, biomass) can help you to reduce indoor air pollution.

Land / Water Pollution

- Pick up trash around you. Every piece of litter makes a difference.
- Stop littering—put trash where it belongs.
- Reduce the need for items made from plastic.
- Reduce, Reuse, Recycle, Refuse.
- Remember only rain down a storm drain.
- Use less-toxic pesticides.
- Use a drip tray to collect engine oil.
- Buy products that have minimal packaging.
- Don't dump motor oil on the ground.



Others Ways to Help Our Environment

Recycling

Facts

- Americans throw away 2.5 million plastic bottles every hour.
- Currently less than 35% of households and less than 10% of businesses recycle in the U.S.
- 3 Only 49% of people in California recycle.
- In 2008 the United States produced more than 250 million tons of municipal solid waste. Most of the waste came from residential homes.
- An aluminum can that is thrown away will still be a can 500 years from now!



Tips

- Before throwing something away, figure out if it can be reused or recycled.
- Don't buy something until you know how to dispose of it.
- Cans that are rinsed out will have little or no odor and are less likely to attract bugs.
- Avoid breaking glass and mixing broken colors together as this may make the glass unacceptable for recycling.
- Recyclable paper includes: magazines and catalogs, telephone books, direct mail, brochures, pamphlets and booklets in addition to cereal, cake, chip, and cracker boxes.



Energy

Facts

- Enough sunlight reaches the earth's surface each minute to satisfy the world's energy demands for an entire year.
- Refrigerators in the U.S. consume about the same energy as 25 large power plants produce each year.
- The amount of energy Americans use doubles every 20 years.
- From 2008 to 2030, world energy consumption is expected to increase more than 55%.
- Cooling and heating costs make up approximately 1/2 of an average U.S. home's total energy bill

Tips

- When possible walk, bike, or carpool. You save both money and you won't emit as much CO₂.
- Try not to overheat or over cool rooms. By lowering the thermostat by 2 degrees, you can save 6% of heating related to CO₂ emissions.
- Air dry your laundry instead of using your dryer.
- Try buying compact fluorescent bulbs which can reduce energy up to 75%.
- When washing your clothes, turn the water to cold.

Water Conservation

Facts

- The average household uses 140-170 gallons of water a day.
- A leaky faucet can waste up to 100 gallons of water a year.
- It takes 660 gallons of water to make a 1/3 lb hamburger.
- About 1% of Earth's water is available for our every day needs.
- (5) 97% of the Earth's water is salt water.

Tips

- If you use a low-flow shower head, you can save 15 gallons of water during a 10-minute shower
- Don't use your toilet as a trash can.
- Check faucets and pipes for leaks, and fix them.
- Take 5 minute showers or shallow baths.
- Store water in refrigerator, then you'll always have a cool glass of water.
- Use a timer when watering

Sources

sunnyvale.ca.gov epa.gov recyclingacrossamerica.org http://www.conserve-energy-future.com http://des.nh.gov/organization/divisions/air/tsb/ams/ aqmdp/share.htm http://education.nationalgeographic.org/encyclopedia/ great-pacific-garbage-patch/ https://www3.epa.gov/airquality/peg_caa/reduce.html http://eschooltoday.com/pollution/land-pollution/landpollution-facts.html http://water.usgs.gov/edu/activity-watercontent.html https://www.wm.com/location/california/san-joaquin/ hughson/facts/index.jsp



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Santa Clara Valley Water District





