

Eco#ivities for Kids



Presented by Green Mountain Energy Company



**Green
Mountain
Energy®**

www.greenmountain.com

Make the World Your Own

The earth belongs to everyone and it's up to us to take care of it. Here's your chance to color the earth any way you want. When you're done, have an adult help you cut it out. Then you'll have your own world to take care of!



Earth Facts:

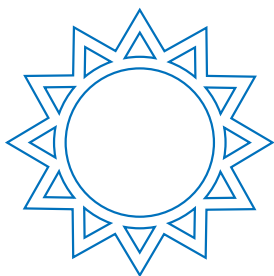
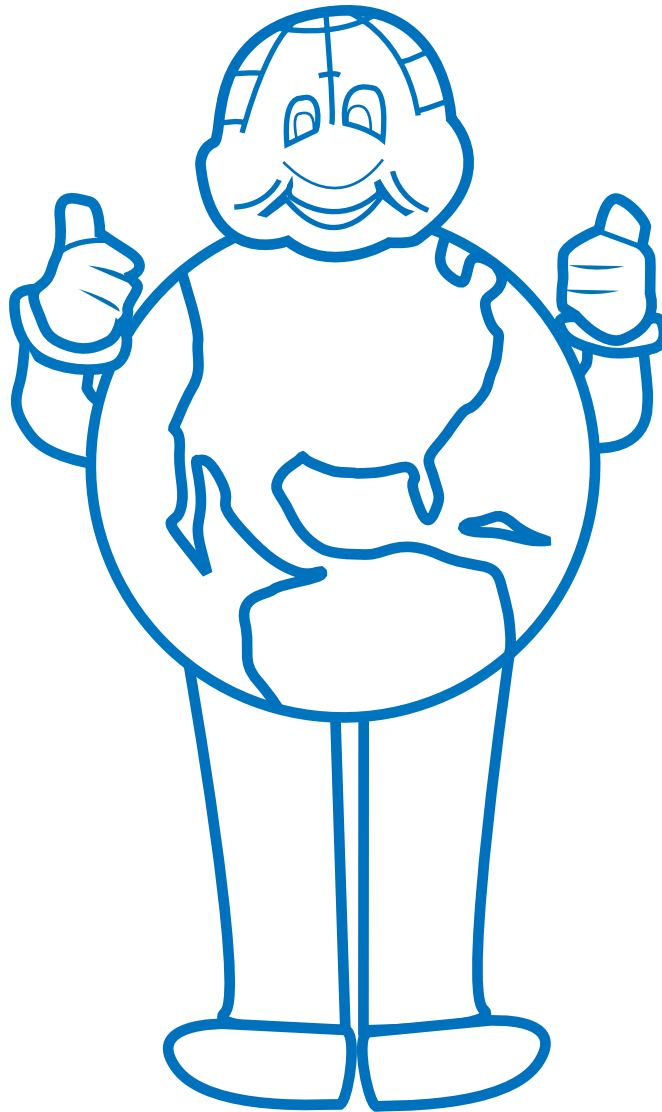
- ▶ Earth is the third planet from the sun at a distance of 92.9 million miles.
- ▶ 71 Percent of the earth's surface is covered with water.
- ▶ At the equator, the earth is 7,926 miles around.
- ▶ Scientists have found and described approximately 1.75 million species on Earth.
- ▶ The earth travels through space at 66,700 miles per hour.
- ▶ The word "ecology" comes from the Greek word meaning "house."
- ▶ Our planet weighs nearly 6000 trillion tons!
- ▶ The earth is surrounded by an Ozone Layer which protects us from harmful UV rays from the sun.

Add Some Color to Super Earth!



Super Earth travels the country helping Green Mountain Energy Company spread the word about renewable energy from sources like the sun, water and wind.

Super Earth!



Sun



Water



Wind

Ecology In Action at School



Celebrate Earth Day every day! Did you know that there are fun and easy things you can do at your school right now that can help the environment? **Talk to your teacher or principal first** about incorporating one or all of these great ideas to help your school protect the environment through education and action.

Organize a Clean-up Day. It's sad how much litter can collect around your school, making it look dirty and possibly harmful to wildlife. Gather your classmates, gloves and a bunch of garbage bags. You'll be amazed at how much trash you can pick up working together, and how much fun you can have! You can even expand the clean up to the community around your school.

Help Solve an Environmental Problem. Have your teacher explain to the class some of the Earth's biggest environmental problems, like air pollution or global warming. Then break up into groups to talk about each issue and brainstorm ideas on how to solve the problem. Make sure to think of ways everyone — like you and your friends — can be part of the solution. Then present your ideas to the class.

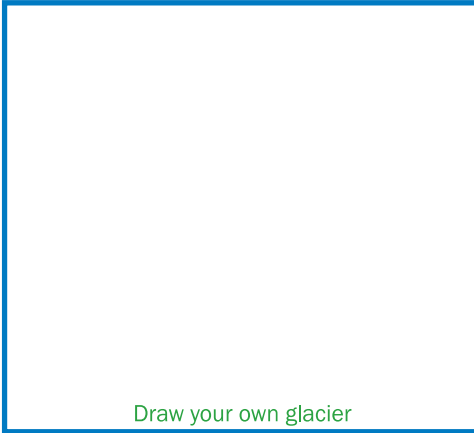
Conduct a School Eco Audit. Your class can become Environmental Investigators and help the school figure out ways to reduce waste and practice earth-friendly operations. Find out how much electricity, water, paper and cleaning supplies are used monthly at your school. Then find out how much and what kind of waste is generated. Think of ways your school can reduce its use of energy, resources, and harmful products. Report the class findings and recommendations to the principal.

Get Creative! The earth and its beauty have been the inspiration to artists, writers and actors since the dawn of civilization. Now it's your turn! Incorporate the earth and nature into poetry, art pieces, plays, musicals, or written stories. Then present your creations to the school or your parents. You don't have to limit this to your class. Create an event that allows participation from the entire school.

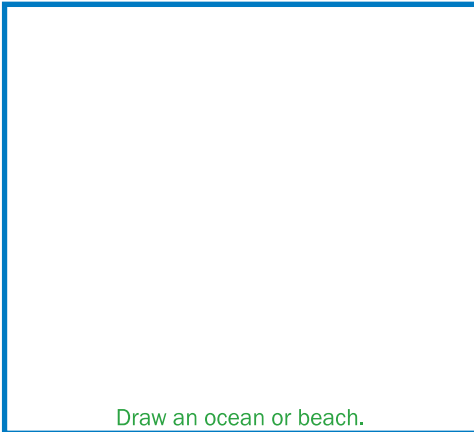
Grow a Green Thumb. Plant an organic garden at your school, either inside the classroom or on the school grounds. Learn ways to tend to your garden and see first hand how plant life utilizes the environment to thrive and produce food for all of us. You'll also get to enjoy the fruits of your labor.

Plant Trees. Trees are a vital part of the environment: they produce oxygen humans need to breathe; provide shade on hot summer days; and they look beautiful. Perhaps there are areas around your school that could benefit from a tree. Your class could help bring a little more green to your school by participating in a tree planting program. Or, raise funds for an organization that plants trees on the behalf of others.

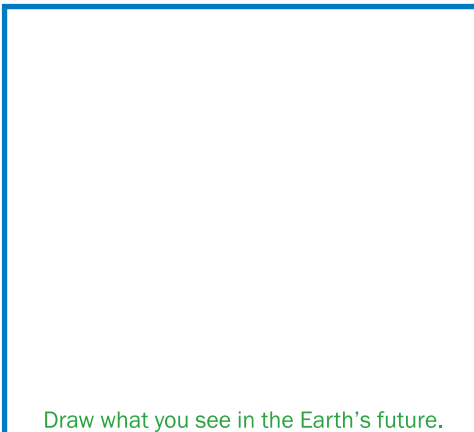
Climate Detectives



Draw your own glacier



Draw an ocean or beach.



Draw what you see in the Earth's future.

Scientists have to think like detectives. They look for clues to help them understand how the world works. Then they investigate the clues to find evidence—real facts that can give them a better idea of what is going on.

Many of the world's leading climate scientists believe that our earth's climate is changing because they have good evidence. The earth has warmed about 1 degree Fahrenheit (FAIR in hiyt) in the last 100 years. And the four warmest years this century all happened in the 1990s.

Here are some of the ways that scientists gather evidence about climate change:

Melting Glaciers

A glacier (GLAY shuhr) is a large sheet of ice that moves very, very slowly. Many glaciers in the world are now melting. For example, glaciers are melting in Montana's Glacier National Park. Some scientists think the glaciers are melting partly because the earth is getting warmer.

Rising Sea Level

Have you ever built a sandcastle on the beach, close to the ocean on wet sand? If you have, you probably know that the sandcastle won't last very long. Chances are the waves will wash away the sandcastle as soon as the tide comes in. The water goes higher up the beach when the tide comes in. At most shores throughout the world, two high tides and two low tides occur every day. But now the level of the sea is rising, so the high tides will be higher than they were before. Over the last 100 years, the level of the sea has risen about 6-8 inches worldwide. When the sea level rises, the tide goes farther up the beach.

Scientists think the sea has risen partly because of melting glaciers and sea ice. When some glaciers melt, they release water into the sea and make it higher than it was before. Scientists also think that hotter temperatures in the sea make it rise even more. Heat makes water expand. When the ocean expands, it takes up more space.

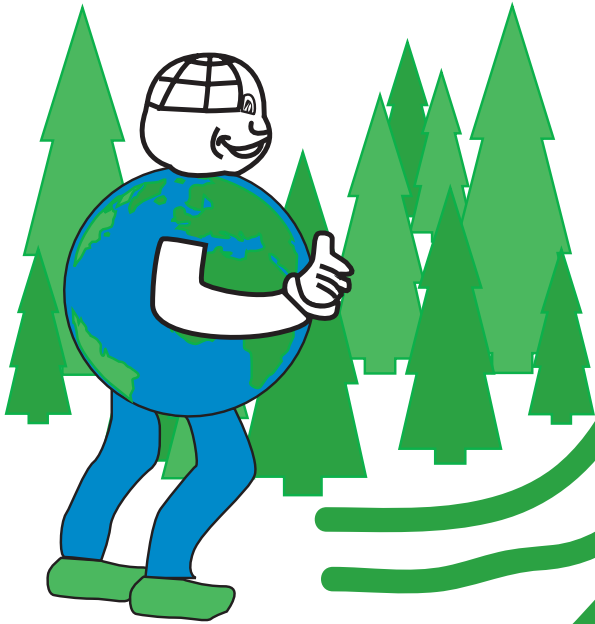
Climate Crystal Balls

Scientists are not fortune tellers. They don't know exactly what will happen in the future. But they can use special computer programs to find out how the climate may change in the years ahead. And the computer programs tell us that the earth may continue to get warmer.

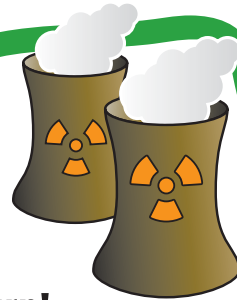
Together, the melting glaciers, rising seas, and computer models provide some good clues. They tell us that the earth's temperature will probably continue to rise as long as we continue increasing the amount of greenhouse gases in the atmosphere.



Help Super Earth find his way to clean, renewable electricity!



Sorry,
Wrong Turn!



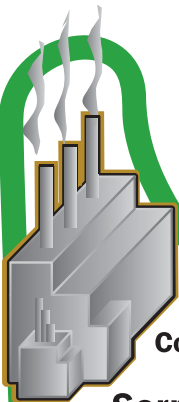
Nuclear

You Win!



Water

Wind



Coal

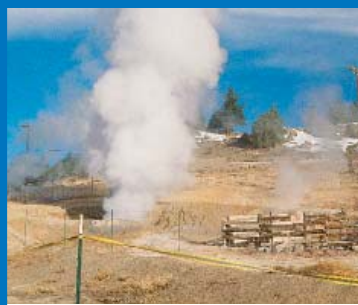
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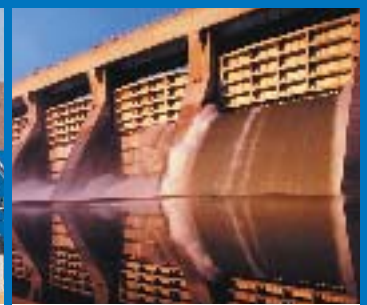
Wind



Geothermal



Solar



Water

A Kid's Guide to Renewable Energy

Have you ever wondered where electricity comes from? Most likely your community is served by several power plants that generate electricity using different types of fuels. Some of those fuels, like coal and oil, are dug out of the ground and burned to make electricity. In the process they produce pollution that can be very harmful to people, animals and the earth. They'll also run out one day. These are called fossil fuels.

However, some electricity is produced by renewable sources, which means no matter how much we use, it will not run out. These sources do not produce harmful pollution. Here are some types of renewable energy:



Wind— Turbines are mounted on tall towers to harness the wind. When the wind blows, the blades turn like on a windmill. This rotation turns a generator which produces electricity without emitting any pollution. Wind power is now the fastest-growing energy source in the world.



Water— You've probably seen a dam on a river before. Some are actually hydroelectric plants which trap water behind it and route the flow over turbines. When the water makes the turbines spin, they generate pollution-free electricity. Some hydro plants produce enough electricity to power entire cities.



Solar— Our sun is the most powerful energy source in our solar system. When the sun's energy reaches the earth, panels called photovoltaic (PV) cells convert sunlight into electricity. Some PV cells send the electricity directly into the power grid to be used by the community. Other PV cells generate electricity to power a generator's turbine, which produces the electricity for the regional power grid. All this is done without emitting any pollution.



Geothermal— Geothermal generation relies on heat trapped within the earth's crust — the same kind of heat that you'll find in volcanoes and geysers. Geothermal power plants tap steam and hot water trapped underground and use it to spin turbines which generate pollution-free electricity.

Eco-Word Find

Find these ecology words hidden across, up and down, backwards and diagonally in the word puzzle:

SOLAR
WIND
RECYCLE
BLUE SKIES
CLEAN ENERGY
RENEWABLE
ENVIRONMENT

FRESH AIR
NATURE
POLLUTION FREE
PROTECT
CHOICE
SUN
GREEN

ECOLOGY
WATER
SUSTAINABLE
TREES
FUTURE
EARTH

N E N T E D A R Y C I N S N T R I A H S E R F E N
I R U L C F D P O L L U T I O N F R E E Z S C L I
R E A C S E E N T E U L C R F B N N Y S A W E C R
R N E G D N G H I N R E V R L O E N A T E R E E R
U E W E T E Y O G W I U D U E F Q N S R X M T O U
N W V I N E C R F E E N E N I S U Q E T T N R H N
C A U R E S E I F P L S B C L E A N E N E R G Y A
G B T E M E S W T T K E L G E N C G V E I G A C T
N L Q V N H C H O I C E L N R E N F U T U R E A U
E E M J O O I E E C N H W E I I P E R N N E S E R
S G B I R F R S K N E F C C E E R T O P U E R G E
E M S Q I L A Y E A C Y F U S E O N I D W N A M U
E R E U V C L I L I C P A I N A T N O K U A N R I
R R C L N R O L G L I R E I S O E E C W B Y T R I
T N I E E M S P E O I Y G O L O C E H O R O B E L
E L B A N I A T S U S O K T B R T E C N T H O L R