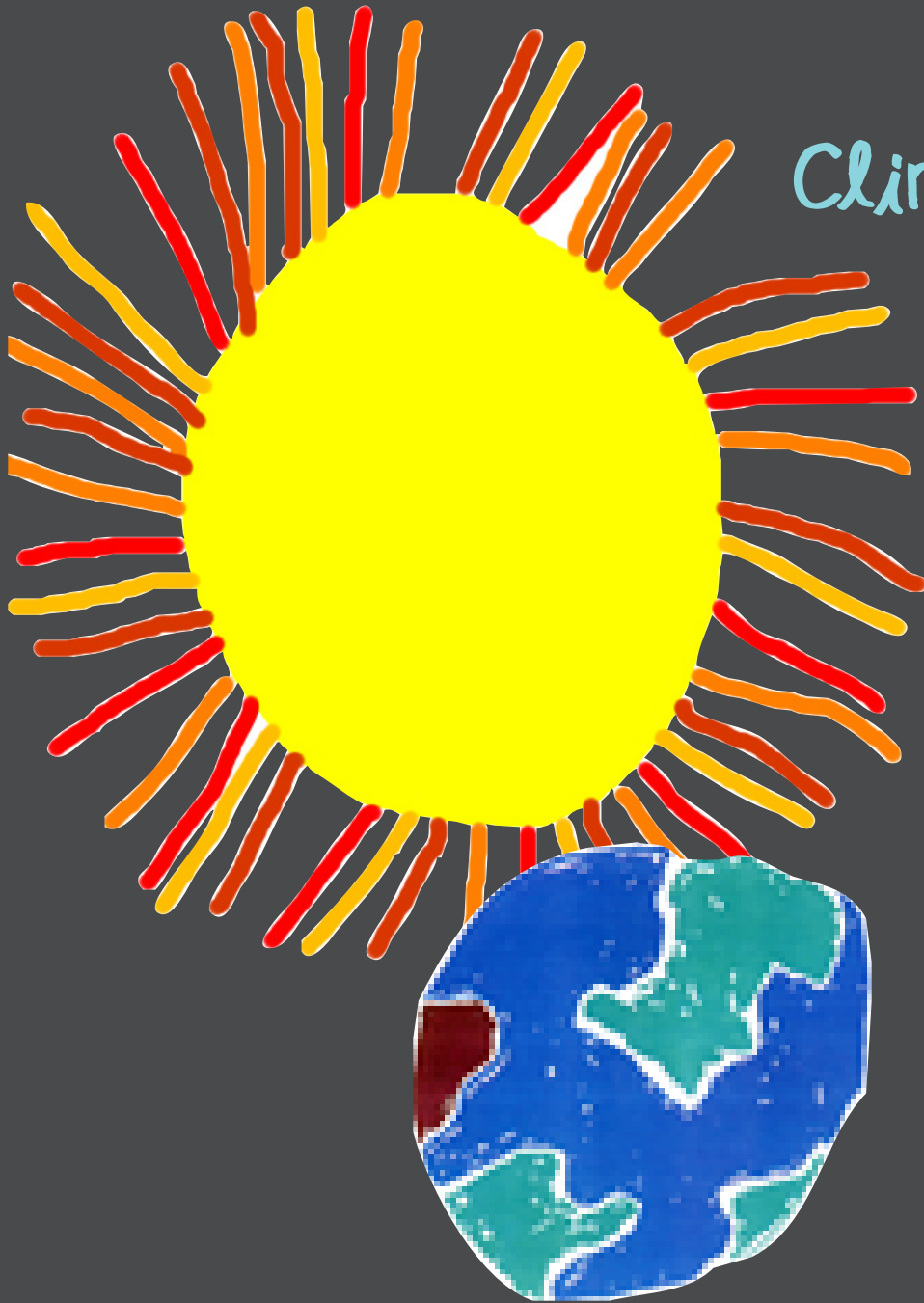


Kids Campaign to Cool our Earth

Climate Change
A to Z



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The Kids Campaign to Cool Our Earth!



from Kids for Saving Earth. kse@kidsforsavingearth.org. www.kidsforsavingearth.org

The Problem

Air

Our Air is Warming Up!

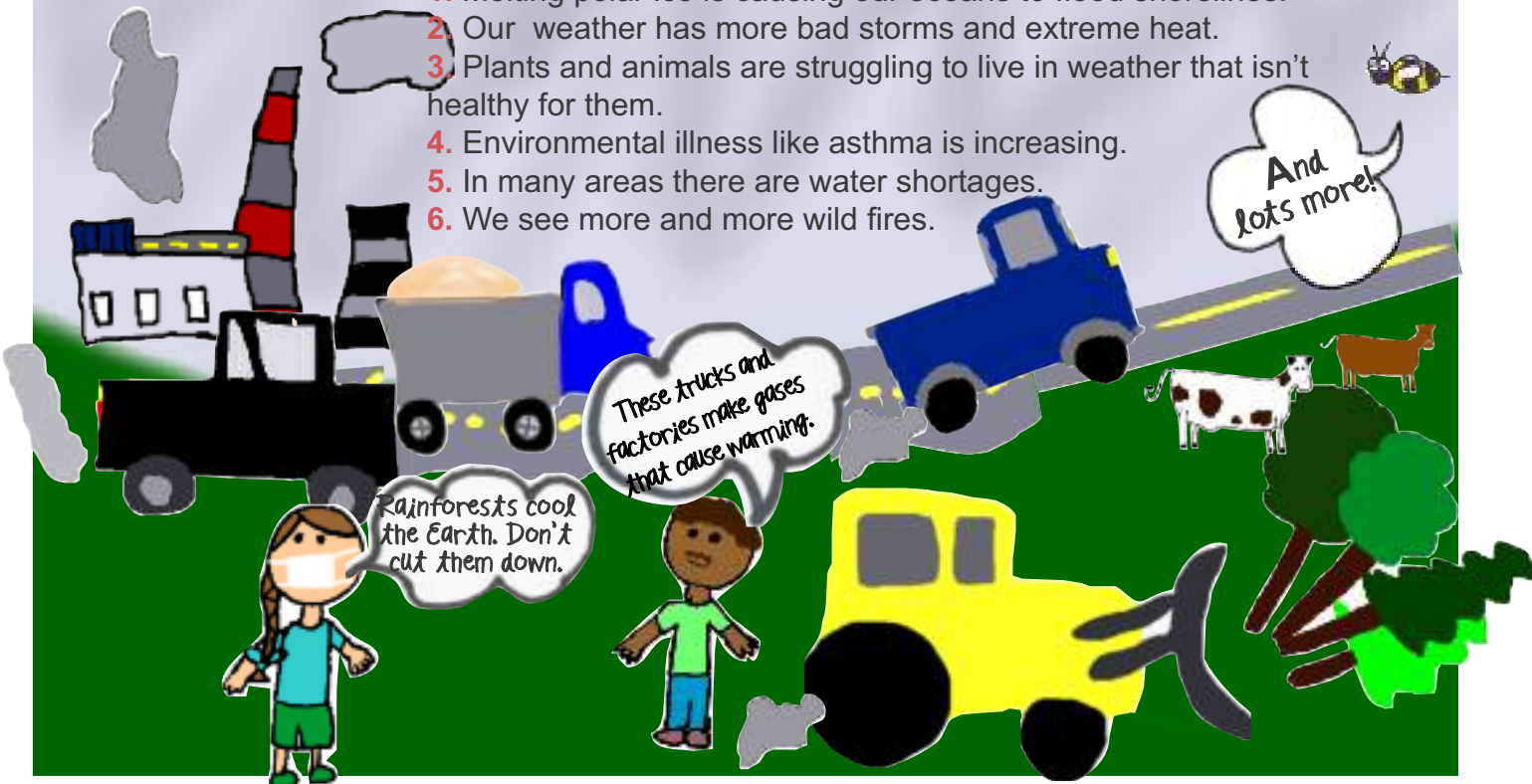
When you get sick, often your temperature goes up. When Earth's temperature goes up the heat is making our planet sick. Certain gases caused by pollution from coal, oil, methane and other gases block the sun's heat from escaping from our planet.

Why is air on Earth warming?

Ninety-seven percent of climate scientists (that's almost all of them) agree global warming (climate change) is caused by human activities that create too much green house gas like carbon dioxide (also called CO₂). Most CO₂ comes from oil and coal. Forests help absorb CO₂ but people are cutting down too many forests. Methane comes from natural gas and livestock (like cows, pigs and goats). These gasses wrap around Earth like a blanket, trapping too much of the sun's heat.

What Problems are caused by warming air on Earth?

1. Melting polar ice is causing our oceans to flood shorelines.
2. Our weather has more bad storms and extreme heat.
3. Plants and animals are struggling to live in weather that isn't healthy for them.
4. Environmental illness like asthma is increasing.
5. In many areas there are water shortages.
6. We see more and more wild fires.



Cool the Air COOL Our Earth

What can kids do to help?



Earth's air is filled with many needed gases like oxygen, water vapor and carbon dioxide. They are part of the blanket of green house gases that protect Earth from getting too cold. **However**, as you have learned, we have way too much carbon dioxide (CO₂) and other gases in our air. These cause Earth's air to warm more than it should.

Steps to Reduce CO₂ Emissions!

1. Trees, bushes, and plants absorb (soak up) CO₂. To protect Earth plant hundreds of trees and plants. When you see a parking lot, ask the business owner if they can help you plant trees and plants around the lots. With permission, plant trees at your home, apartment, or church. **Write a letter** telling your local nursery why it should donate a tree for you to plant. **Google** where to find free trees. Do some fundraising to buy trees.

2. Kids can't buy electric cars, build Earth friendly homes, or buy CO₂ free heating but you can **write** and **convince!** You can write a speech about what can be done to reduce CO₂ and then read it to your parents or any adult to convince them. You can also **send the speech** to governmental leaders. Tell them what you think and that YOU have to live with problems that global warming causes(listed on page 1).



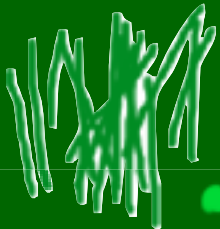
Kids can do it!

Join
the Cool Earth
Team



Click on Simple Action Steps to Cool Our Earth!

- Turn off electrical appliances and **lights** when not using them.
- Whenever possible **walk or bike** instead of riding in a car.
- Ask your driver to stop **idling their car or bus** unless absolutely needed.
- Use cloth napkins.**
- Recycle.**



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The Kids Campaign to Cool Our Earth!



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Burning Fossil Fuels

What are fossil fuels?

Fossil fuels are made from ancient (millions of years old) plants and animals that are buried hundreds and even thousands of feet deep into our Earth. These fuels were once alive! Oil and natural gas were created from organisms that lived in the water and were buried under oceans or rivers. Heat, pressure and bacteria combined to compress and "cook" the organic material under layers of silt. In most areas, a thick liquid called oil formed first but in deeper hot regions underground the cooking process continued until natural gas was formed. Coal was formed from dead trees, ferns and other plants that lived 300 to 400 million years ago, even before dinosaurs.

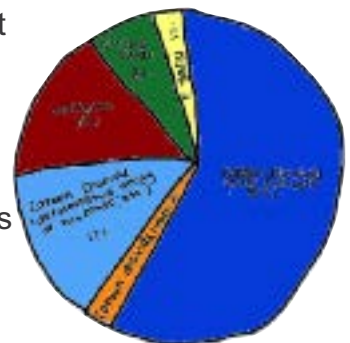


How do we use fossil fuel energy. Do they hurt Earth?

Right now most of our energy used to run trucks, cars and factories, heat or cool our buildings is fossil fuel energy. As of 2013 people on Earth are using over 90 million barrels of oil each day. This has been increasing every year. Below are examples of how using fossil energy hurts Earth's land, air, water and living creatures.

1. To remove fossil fuel energy from Earth, we have to drill, mine or frack (break) the Earth. Next we have to refine (make ready) the energy so that we can use it in our cars, factories and more. These activities can harm our planet by polluting the our land, air and water.

2. Next we have to move this coal, oil or gas to where we need to use it..like to gas stations or power plants. This means using trains and trucks that can spill, explode or crash. Pipelines can leak into earth or water. Coal has to be dug out of deep mines and that can be dangerous.



3. Burning fossil fuels throughout the world releases millions of tons of carbon dioxide (CO₂) into the air and this causes global warming. You can see from the chart above that carbon dioxide is the major source of greenhouse gas released into the air. **We can all do something about this problem of too much CO₂ in the air.**

Help Tune Up the Earth



What can kids do to help?



Kids can help burn less fossil fuels!

To help the Earth, some things a kid can do alone but some things they should do with an adult. Talk with an adult like your teacher or your parent and decide together what you will do to help slow the CO₂ that comes from burning fossil fuels.

Start by printing out this [Tune Up the Earth Challenge](#). Then work together to complete listed items on the chart and below.

1. Be sure you have the right amount of air in your family's car tires. It's really hard to ride a bike when the tires are low. It takes a lot more of your energy. The same goes when car tires are low. It takes more gas to drive it. Keep tires filled with their recommended amount of air. The car will burn less gas.

2. Remind adults to keep their cars tuned up. The cars will create less pollution and can use less gas.

3. **Walk and bike** to school or to see your friends whenever possible and safe.

4. **Turn off lights** in your home and bedroom.

5. With adult permission turn up the AC in summer and turn down heat in the winter.

6. Talk with the school principal and get permission to start a "**No Idling Campaign**" for buses. Idling uses lots of fossil fuel!



7. Recycle, compost, and learn how and why in **Teaching Grownups**.

8. Plant trees and/or create a **backyard habitat**. This will help absorb the CO₂ created by burning fossil fuels.



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The Kids Campaign to Cool Our Earth!



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Clean Energy

C for Clean Energy

Ugh! There are examples of dirty energy all around us. Gas and diesel used by trucks, cars and airplanes. Gas and coal used to heat our homes and factories. Dirty energy is fossil fuel energy and we don't have to use it. There are other forms of energy called clean energy. Solar power comes from the sun; wind power comes from putting our blowing air to good use; wave power from our oceans.

What is your carbon footprint?

Your carbon footprint is the amount of fossil fuels (gas, oil, coal) that you use (burn) every year. Footprints in snow, mud or sand can be seen but a carbon footprint shows up in air so you can't see it.



To slow global warming you must make your carbon footprint smaller!



And what creates a carbon footprint?

Carbon footprints are created when we burn gas, oil or coal. We use such fossil fuels when we drive cars or we heat or cool houses. We use this dirty energy even to make paper plates, plastic forks and throw-away water bottles. We use it when we leave lights on or make a hamburger. Calculate your carbon footprint by [clicking here](#).

Next learn how to make your carbon footprint smaller by using clean energy!

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The Kids Campaign to Cool Our Earth! Clean Energy



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What is Clean Energy?

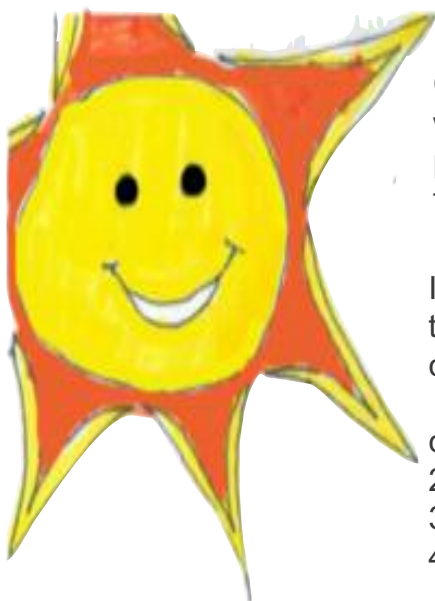
Clean energy comes from power sources like energy from sun, wind and waves. This kind of energy will never run out and will create very little pollution. When we use these sources of energy, we won't have to burn fossil fuels. This means less global warming!

It's hard for kids to use clean energy if their parents or communities don't have that kind of energy available. However kids can explain the importance of clean energy to adults. For example:

1. Go to city council meetings to ask if solar or wind farms can be built in your community.
2. Write letters to energy companies asking for more wind and solar farms.
3. Ask adults to vote for governmental leaders who support clean energy.
4. Check out our other KSE [Solar](#) and [Wind Power](#) educational materials.

There are more things kids like you can do!

You can use less energy by turning off lights, biking instead of riding in a car, helping put air in you car tires, wearing warm clothes allowing your home and school temperatures to be lower. You can start a "[No Idling Campaign](#)" and learn all you can about [Climate Change](#).



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The Kids Campaign to Cool Our Earth!



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Dolphins have been struggling for years with pollution problems that can hurt them. Pollutants like oil, plastic bags, bottles, pesticides and even noise pollution are found in our oceans and waterways. Like us, dolphins need to breath oxygen and hold their breath under water. That is why they can drown by being caught in trashed fishing nets floating under water.

Even worse, as a result of climate change the oceans are warming up and this will cause new problems for dolphins.

All animals of the oceans are having trouble dealing with climate change but KSE is focusing on dolphins because they were KSE founder Clinton Hill's favorite animal. To learn more about dolphins, [click here](#).

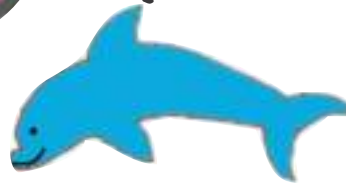
The main cause of climate change is the burning of coal, gas and oil. These are forms of energy called fossil fuels. As we burn these fuels they release carbon, which mixes with the air to become carbon dioxide (CO₂). A little bit of CO₂ is a good thing because it works like a greenhouse (or blanket) around the Earth to keep it at just the right temperature. The problem is that we now have too many humans on Earth burning fossil fuels in their homes, cars, factories and more. The blanket of CO₂ around the Earth is getting thicker and thicker creating climate change by keeping the Earth too warm. All this changes the weather for us, dolphins and all living creatures.

This water tastes strange!

Oceans are warming so fast that some scientists wonder if dolphins and whales can adjust fast enough. The plants and fish they feed on will not be able to survive in warm water. As the oceans warm, the Arctic's fresh water ice melts into the sea salt water. More fresh-water in their habitat is something dolphins may not be able to handle. Changing the warmth of the water may also increase disease in dolphins.





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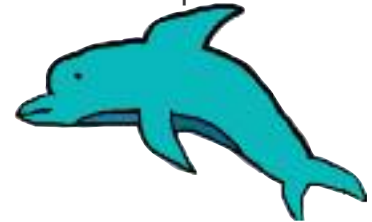
Protect our Dolphins



Dolphins live in oceans and some rivers all over the world. There are many different kinds of dolphins and they all have some of the same needs in order to survive. They need clean, healthy, pollution-free water. They also need good sources of food like fish and plants and a water temperature that works for their bodies and their food source.

What can you do to help dolphins?

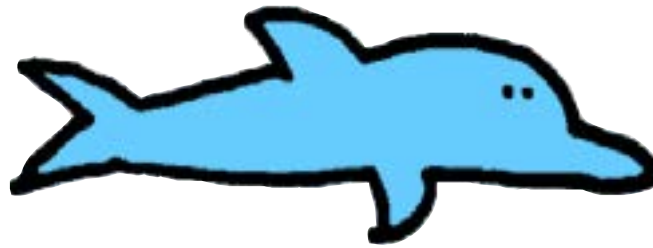
-  A very important thing you can do to help dolphins and other marine (water) animals is to write letters and draw pictures to send to your **governmental leaders**. These leaders are the people who can be influenced by you to change our laws to control pollution and slow climate change.
-  Talk with your parents about the issue of climate change. They may **want to learn more**.
-  You can also make a visit to your **leaders such as your mayor or congressperson**. Ask them to help you protect dolphin habitats. (homes) Tell them solar or wind power will help!
-  Finally, do all you can to use less energy. Turn off your lights. Walk or ride your bike when you can instead of riding in a car. Plant lots of trees and plants to help remove CO₂ from the air. Politely ask your principal to tell school bus drivers to **stop idling their bus** while waiting to pick you up at school.



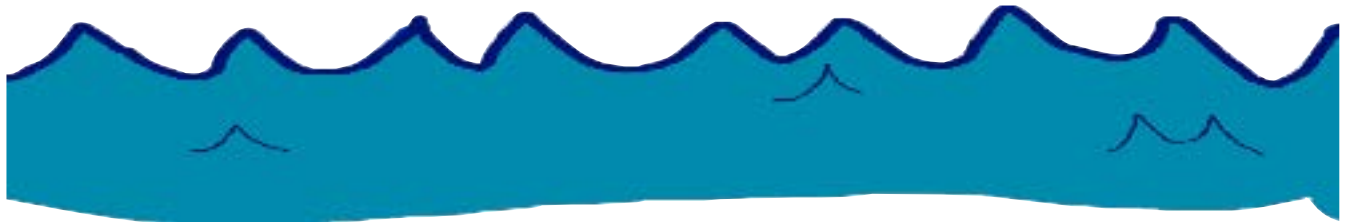
I'm kind of crabby about global warming.

Climate change can hurt us too!

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Join the Cool Earth Team



Activities

[About Dolphins](#)

[No Idling Campaign](#)

Resources:

Threats: <http://www.defenders.org/dolphin/threats>
http://www.bluevoice.org/news_facts.php

Dolphin facts <http://www.dolphins-world.com/dolphin-facts-for-kids/>

Dolphin Emotions: <http://magazines.scholastic.com/news/2015/02/>

World Wildlife Fund

http://us.whales.org/sites/default/files/whales_hot_water.pdf

Carbon Dioxide Emissions(EPA)

<http://www3.epa.gov/climatechange/ghgemissions/gases/co2.html>

Kids Campaign to Cool Our Earth!

from Kids for Saving Earth kse@kidsforsavingearth.org . www.kidsforsavingearth.org

Elephants

What's the Problem



We know elephants are big and strong. We think they can survive anything but that's not true. They are the heaviest living land mammals but even so, much smaller humans are causing them big problems. In this **KSE Action Program** we will tell you about how climate change harms elephants and what we can do about it. To learn more about elephant issues go to resources on [page three](#).

Elephants live in parts of Asia and Africa and their habitats (homes) are disappearing. Since 1979 their African habitat has shrunk over 50%. Asian elephants now have only 15% of their habitat in which to roam. Their homes are disappearing for many reasons including climate change.

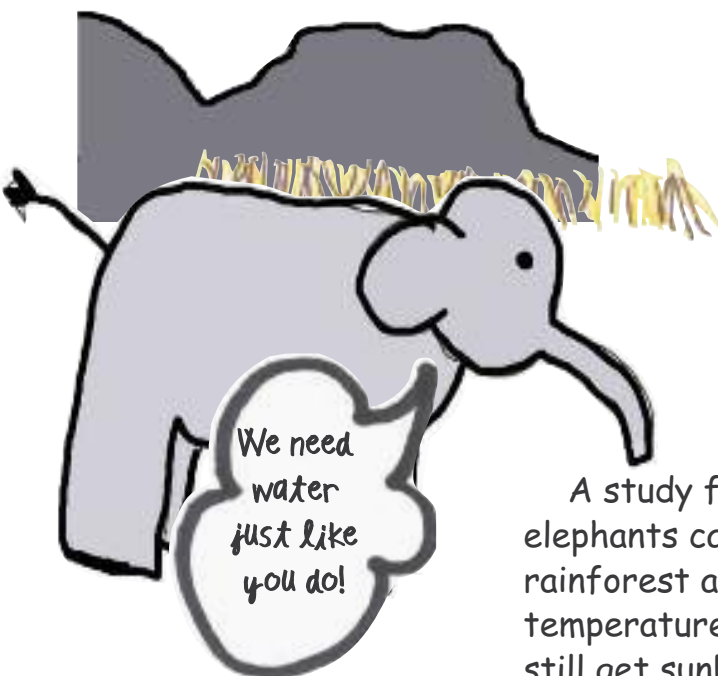


Without water we cannot live; nor can elephants or any living thing. Global warming is mainly a result of too much carbon dioxide(CO₂) from vehicles, homes, factories and more.

CO₂ in our air is like wrapping Earth with a blanket. When the Earth heats up it can cause extreme weather conditions like droughts, which are times of little or no rainfall. An elephant usually eats over 300 pounds of food a day. No rain can mean no food.



A study from the University of Sheffield in England found elephants can suffer heat stroke. Elephants in Myanmar rainforest area can have problems with a slight rise in temperature. Although elephants have thick skin they can still get sunburned. When it's very hot they get in water to cool down. If there's no water then what?



We need
water
just like
you do!



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Protect Our Elephants



What can we do to help elephants?

Elephants are very smart and carefully watch over each other. They develop friendships and also show signs of being sad or happy. Let's make them happy! We can do this together. We can become Defenders of the Planet and work to protect elephants from global warming. First learn more about climate change by [clicking here](#) and then get ready for some action.



Now that you understand what is happening to elephants as a result of climate change, it is very important to take action. Let's begin by sending drawings of elephants to United Nation Ambassador Samantha Power. Click on [this link](#) and print it and then fill in the blanks and draw your elephant. You may add a letter explaining how global warming harms elephants. Send it to the address on the form. The United Nations is a worldwide organization of 193 nations, which work together to solve our world problems and to keep peace. [Click here](#) to learn more.

Become an "Earth Inspector" in your home to help slow global warming.

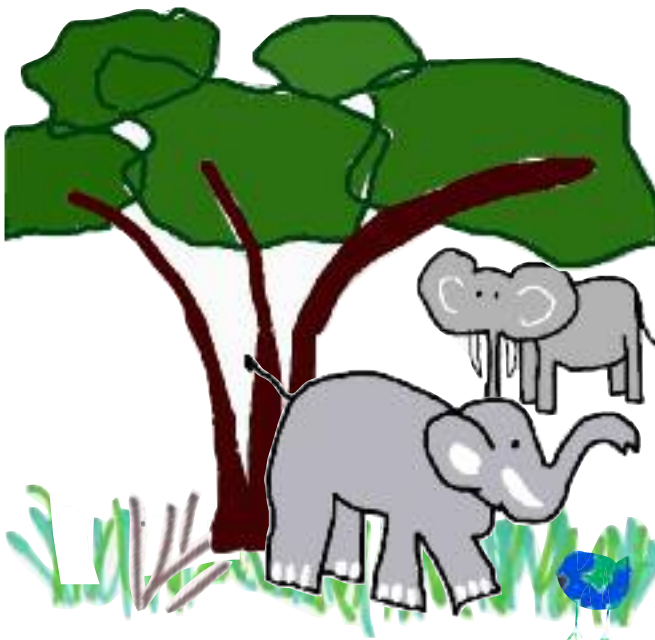
Using less energy will slow climate change. You will save money and help Earth if you look for all air leaks in your home. Watch this at school or with adults at home to learn more.

<http://energy.gov/energysaver/home-energy-audits>

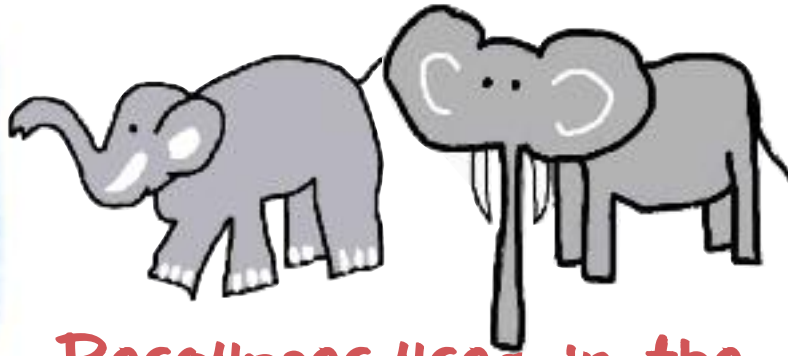
Then do your own inspection.

1. Look for leaks (drafts). Write those locations down. Inspect near your entry doors or even place your hand near your light switches. Can you feel cold or warm air? [Check here](#) for a list of places to investigate.

2. Next check out the many ways to stop these leaks. You and an adult can caulk, weatherstrip and use insulation. [Learn here](#) how to do this. Now you have helped to save Earth and its elephants.



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Resources used in the above educational piece.

World Wildlife Fund Elephant habitat:

<http://www.worldwildlife.org/stories/wildlife-and-climate-change>

Sheffield Study: <http://planetearth.nerc.ac.uk/news/story.aspx?id=1348&cookieConsent=A>

<http://www.elephant-world.com/elephants-and-global-warming/>

[http://www.esajournals.org/doi/abs/10.1890/12-](http://www.esajournals.org/doi/abs/10.1890/12-0834.1?prevSearch=%28elephant%29+and+%5BContrib%3A+mumby%5D&searchHistoryKey)

[0834.1?prevSearch=%28elephant%29+and+%5BContrib%3A+mumby%5D&searchHistoryKey](http://www.esajournals.org/doi/abs/10.1890/12-0834.1?prevSearch=%28elephant%29+and+%5BContrib%3A+mumby%5D&searchHistoryKey)

Elephant Facts: <https://elephantconservation.org/stay-informed/just-for-kids/>

<http://www.sciencekids.co.nz/sciencefacts/animals/elephant.html>

Energy Audits: <http://energy.gov/energysaver/air-sealing-your-home>

Additional Resources about Elephants. YouTube Videos Included.

Teaching Guide from Time for Kids: This is a detailed lesson plan for teachers.

<http://www.timeforkids.com/files/Elephants%20Never%20Forget.pdf>

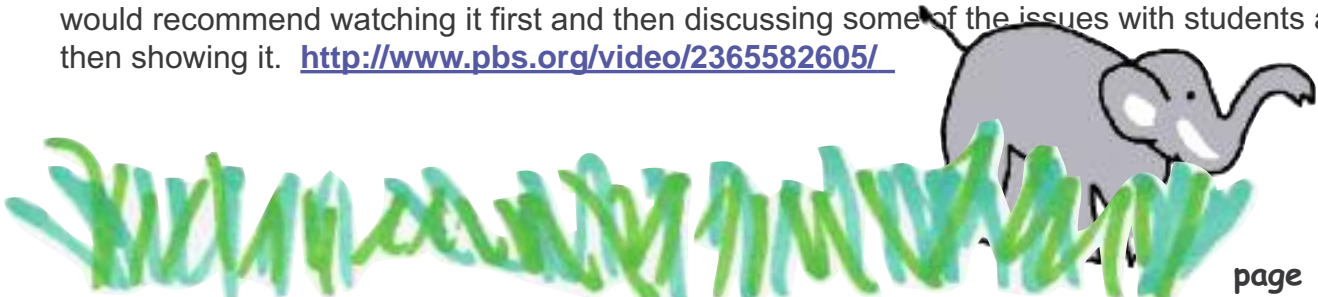
This link is very short. It suggests it is for kindergarten but I think even adults should see it.

<https://www.youtube.com/watch?v=CP5uJVpHrVw>

This video link has amazing information about the intelligence of elephants. Link #7 is exceptional and will empower your students to act.

<http://mentalfloss.com/article/55640/7-behaviors-prove-elephants-are-incredibly-smart>

This is a PBS video called [Soul of the Elephant](#). I would recommend it for 4th grade up. It is a very moving educational piece but may make some children a bit sad. I would recommend watching it first and then discussing some of the issues with students and then showing it. <http://www.pbs.org/video/2365582605/>



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Kids Campaign to Cool Our Earth!



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Forests are disappearing.

Did you know about 32 million acres of forests are cut down each year? Trees are harvested for things like building projects, paper, or for cooking. Some trees accidentally burn down or develop disease. Some forests are cut down to clear land for farming or development.

The truth is, we've needed trees for building our homes and making paper. However, now there are ways to make paper and use lumber that won't hurt Earth as much. Trees can be quickly replanted if logging companies get busy. Paper can be made from recycled paper and other things like fast-growing bamboo.

Here is the BIG problem.

Loosing the Earth's forests is dangerous because trees protect us from climate change by absorbing carbon dioxide (CO₂) from our air. Cars, trucks, factories and many other human caused activities are causing way too much carbon dioxide (CO₂). It acts like a blanket around Earth raising its temperature. This leads to global warming or climate change.

We also need our trees for shade to cool us when we are hot and to cool our homes. If we are cool and our homes are cool we use less AC. That's great because AC causes CO₂ and costs money. We can save energy and money at the same time.

Forests Are Homes

Many animals live in forests and need forests to survive. Without forest homes where will tigers, bears, monkeys, jaguars, wolves and many, many other important preicous species live?



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Love our

Forests



Forests Cool Our Earth

In 2015 leaders from all over the world met in Paris, France to discuss climate change. They agreed to work together to slow global warming. They call this the "Paris Agreement." Part of the promise they made was to protect Earth and our forests and to plant new trees. They know trees absorb the human caused CO₂ that is warming our Earth.

Right now forests in the world are being cut down at a very fast rate. We have saved some but we need to save more.

1. Read more about forests to understand why they are so important. Order KSE's [A Trip to the Forest](#). Check out [KSE's Let the Forest Be With You](#) or find forest stories at your libraries and used book stores.
2. Be a great recycler so trees don't have to be cut down for paper.
3. Earn money at your school to help forest protection projects like the [KSE Rainforest](#).
4. Send letters to your [government leaders](#) asking them to help protect our Earth's forests.



Protect our forests and grow more!

You can plant a forest.

In Minneapolis MN, KSE kids planted a Kids for Saving Earth Forest. You can do that too. Just ask your principal or your park director where you can plant lots of trees and other plants to create a forest. Don't forget to plant trees that can grow well in your neighborhood. Ask your local nursery (plant store) to donate plants. Sometimes area businesses will donate money or trees to help out. Don't be afraid to ask. Send them letters or visit their stores! Say Thanks!



We helped plant this forest.



Resources used in this KSE educational piece.

Arbor Day Foundation:

<https://www.arborday.org/trees/climatechange/>

EPA's Carbon Footprint Calculator(look for needed language)

Work with an adult.

American Forests

<http://www.americanforests.org/conservation-programs/forests-and-climate-change>

Think Global Green

<http://www.thinkglobalgreen.org/deforestation.html>

World Bank Forest Protection

<http://www.worldbank.org/en/news/feature/2015/12/18/outcomes-from-cop21-forests-as-a-key-climate-and-development-solution>

World Wildlife Fund-Forest Habitat

<http://www.worldwildlife.org/habitats/forest-habitat>

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Green Shopping Can Cool the Earth...

and products that aren't green
can heat and hurt the Earth.



The word "green" is now often used to mean protecting our Earth. So if you are a "green" shopper, you are buying items that are good for the Earth. Watch out though; some companies call things green when they are not. It's called "**Greenwashing**" Learn more!

Help cool
the
Earth!

Products that are not green are often those using a lot of energy. As you know, when you burn too much energy it creates carbon dioxide (CO₂), which is captured in Earth's atmosphere and acts like a blanket to warm Earth. When it warms too much it causes global warming.

For example, gas-guzzling cars and trucks or incandescent light bulbs (the old style) aren't green. They use too much energy! Sometimes it takes too much energy and materials to create certain products. Often these products, like bottled water or foam plates and cups, aren't really needed. Products that cause thousands of acres of forests to be cut down for wood or farming can be bad for Earth. For instance, when rainforests are cut down to use the land for cattle ranching, the soil often dries out and cannot be used for grazing. A rainforest has just been wasted.

What can a kid do?

Kids don't buy cars or trucks but they can encourage parents to learn more about good choices for Earth. There are some simple things kids can do to limit their use of products which aren't green. Here is a start. Kids can stop using lunch bags which aren't reusable, plastic or foam plates and utensils, paper napkins, throw-away water bottles, products which have lots of packaging, plastic bags, gift wrapping paper, and paper which isn't made out of recycled product.

Buy
green
products!

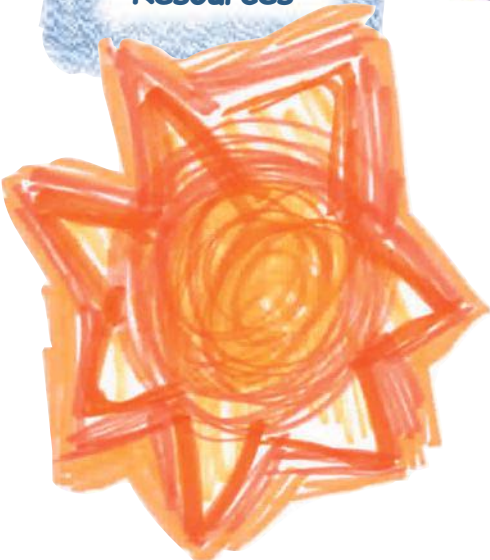


So Let's

Shop Green!



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When we shop for green products we use less energy and that creates less CO₂. This means there is less global warming. However, green products help in other ways too. They create less trash and use less polluting and dangerous chemicals. It means that less trash and poisons will go into our rivers, lakes and oceans. Buying green means our air will be healthier and we will be healthier too.

Every time we can shop green it helps slow global warming and makes our Earth healthier.

"Green Shopping" Ideas



★ Always use reusable shopping bags instead of plastic or paper.

★ Don't buy throw-away water bottles. Buy reusable water bottles like KSE's

★ Use cloth napkins instead of paper napkins.

★ Talk to adults about buying cars which use less gasoline like hybrid or electric cars.



★ Shop in places offering green products like flea markets that sell products which have been used before. Buy organic products which are safer for the Earth and you. What you eat can increase or decrease global warming.

★ Let's celebrate birthdays by having green birthday parties. That way we can enjoy a good time but know that we are working to protect Earth.

★ Or let's shop green any holiday!

★ Shop at the KSE Green Shop

★ Have a Green Day

Ask your teacher or your principal to have a school "Green Day". Learn about many ways we can cool Earth.





Resources used in this KSE educational piece.

What you eat can increase global warming

https://www.nrdc.org/globalWarming/files/eatgreenfs_feb2010.pdf

Shop till you stop global warming

<http://www.independent.co.uk/environment/shop-till-you-stop-global-warming-2186888.html>

100 ways to use less energy

<https://www.progress-energy.com/carolinas/home/save-energy-money/energy-saving-tips-calculators/100-tips.page>

Bye bye Throw-away Bottles

<http://www.kidsforsavingearth.org/pdfs/BottledWaterPoster.pdf>

What 's global warming? Kids for Saving Earth

<http://www.kidsforsavingearth.org/Projects%20for%20KSE/Global%20Warming%20Educational%20FINAL.pdf>

Shop at our Kids for Saving Earth Green Shop

<http://www.ksegreenshop.org/>

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Humans are burning more and more fossil fuels like coal and oil to heat homes, factories and gas for cars and trucks. This puts too much carbon into the air. This carbon blocks heat from escaping our Earth's atmosphere so Earth warms more than it should. We have already discussed many problems caused by global warming and found ways to slow climate change. In our Kids Campaign to Cool our Earth we are studying global warming A to Z. So now let's learn about Health Issues (H).

What most scientists say:

Scientists who study global warming like those at [The Natural Resources Defense Fund](#), [The American Academy of Pediatrics](#) and [Physicians for Social Responsibility](#) have discovered how climate change is hurting our health.

1. We need to slow climate change to slow down the number of very bad storms and floods we are now having on our planet. These storms can cause harm to us and our communities and also impact our water supply.
2. Global warming has increased hot weather. Extreme heat can cause heat stroke and make other diseases worse.
3. Higher temperatures increase smog pollution. More air pollution increases [asthma](#) and other lung diseases.
4. Warmer weather and higher CO₂ in the air causes plant pollen to increase. This will increase breathing problems like asthma.
5. Hotter weather can increase the number of insects. Some bug bites can cause illnesses like Lyme Disease.
6. Climate change can cause more wet and dry periods of weather that can harm farmers crops limiting food sources.
7. Climate change can warm oceans that can cause fish habitat problems, limiting a healthy food source for us.

It all sounds kind of scary doesn't it? Lots of people want to ignore global warming and hope it will go away. But it won't go away unless we work hard to make that happen.



Don't worry!
Working
together
we can make
our Earth
healthy and
beautiful!



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Healthy for Us Healthy for Earth

Let's get busy protecting our health and Earth!



Our environment surrounds us. The KSE Promise says, "It's the land, the air, the water and all living creatures." It's important that everything in our environment is healthy so we are healthy.



So here is what we can all do.

1. Plant Trees

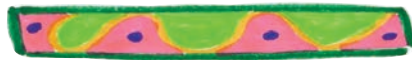


Plant lots and lots of trees and other plants to help cool Earth and clean the air. Try to plant trees that grow naturally in the area where you live.

Help protect rainforests. Some people call them the lungs of our Earth. The more rainforests we have the more we can cool Earth. Learn about the [Kids for Saving Earth Rainforest](#) and then help protect it!



2. Write-On



Do you know you can write letters to government leaders? Or you can send them to [Kids for Saving Earth](#) and we will send them to your local, state and federal leaders. You may want to ask your leaders to pass the [Clean Power Plan](#) that will lower carbon in our air.

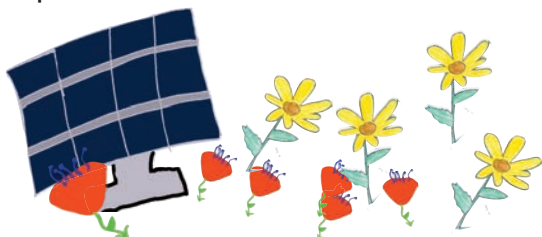
3. Join Campaigns

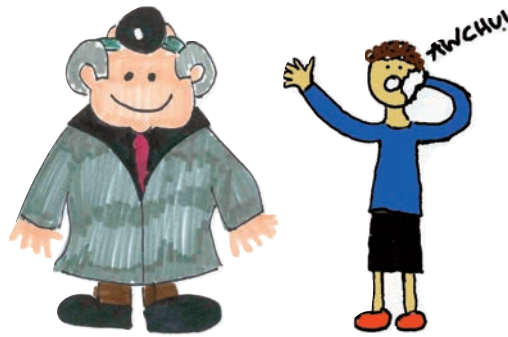
To encourage your state to find ways to lower carbon pollution in our air, [Join the PSR Clean Energy Saves Lives Campaign.](#)

[Join the Kids for Saving Earth Cool Earth Team](#) to receive your membership certificate!

4. Draw pictures to post on a bulletin board at school or church.

To help remove carbon from air first learn about [solar power](#) and [wind power](#). Next draw pictures of solar and wind farms. Put them in a public place like a bulletin board in your classroom, school hall or maybe even your church. Title them "Power Up with Wind" or "Power up with Sun." Then add "Save the Earth!"





Resources used in Health and Climate Change.

American Public Health Association

http://www.apha.org/topics-and-issues/climate-change?gclid=CKaG_-36csCFRloaQodMMQNjQ

Adaptation in Action

http://www.apha.org/~media/files/pdf/topics/environment/adapt_in_action.ashx

World Health Organization

<http://www.who.int/mediacentre/factsheets/fs266/en/>

National Resource Defense Fund.

<https://www.nrdc.org/sites/default/files/climatehealthfacts.pdf>

Physicians for Social Responsibility PSR

<http://secure.psr.org/ea-action/action?ea.client.id=1898&ea.campaign.id=47013>

American Academy of Pediatrics.

<http://pediatrics.aappublications.org/content/136/5/992>

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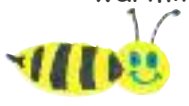
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Insects and Climate Change



All living things can be harmed by climate change. This means change in Earth's weather can even affect insects. When there is too much carbon dioxide (CO₂) from burning energy sources such as coal and gas, it gets captured in Earth's atmosphere and warms our planet.

Insects around us often bother us. We don't like them so we say, "Who cares?" Actually they are very important to the balance of nature and we need them. Some of them are beautiful creatures we all love like butterflies and bumble bees. As a result of global warming we have too many of some insects and too few of others.



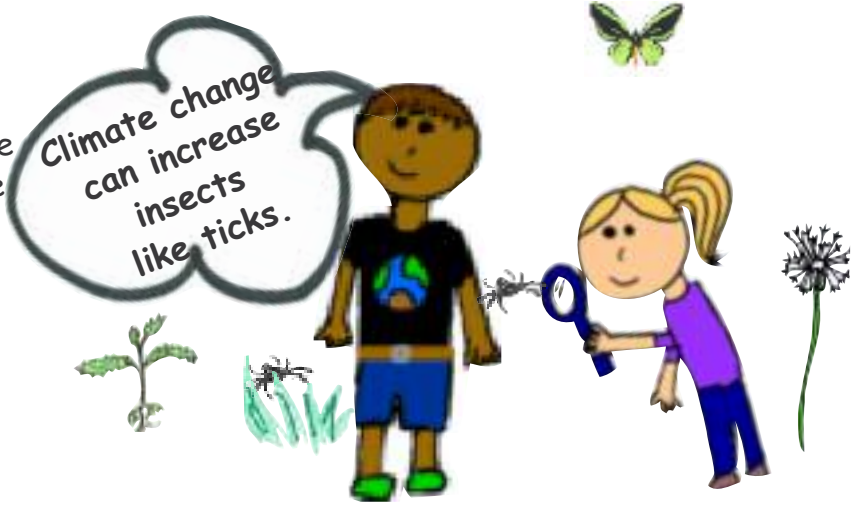
Bees and Butterflies

These insects are called pollinators. This means they carry pollen from one plant to another. When pollen from the first plant is left on the second plant, this process fertilizes it and allows it to make new seeds. We need seeds to grow many plants, including ones we eat like tomatoes, apples, oranges and also plants cows eat like alfalfa. Crops farmers plant on their land need to be pollinated.

We have fewer bees and butterflies these days for many reasons like pesticide use and disease. However, climate change is also causing trouble for bees and butterflies. Their habitats are changing, moving or disappearing. Also the warmer climate can over-heat certain insects.

Mosquitos, Flies and Ticks and Other Insects

Scientists have found that warmer weather causes many insects to reproduce faster. Some of these insects can cause disease such as malaria, lyme and zika diseases. Other insects can damage crops that farmers plant or acres of forests. The more of these kinds of insects we have can mean more damage.



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Let's Cool the Earth

There are lots of things kids can do to help slow global warming and control the insect problems our Earth is facing. Any way you can work to cool Earth will help protect habitat for insects like bees and butterflies. Anything you can do to limit carbon emissions or find ways to absorb carbon will help slow the spread of disease caused by insects. Climate change causes loss of habitat for many needed insects like butterflies, bees, and dragonflies.

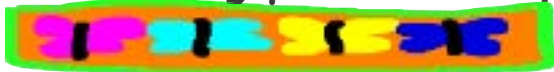


Create Homes for Bees and Butterflies

So many of our bees and butterflies are losing their habitat. The more new habitat we can create, the more homes they will have and this will help cool the Earth.

Create a habitat for these important insects by creating a garden in your backyard or even on your balcony. Learn more about bees and how to protect them by checking out our KSE Honey Bee project. Write to the President that you worry about our precious insects and ask him to help stop global warming. Once your students have done this, award them with a Defender of the Planet award.

Protecting our existing parks will help protect us from insect problems.

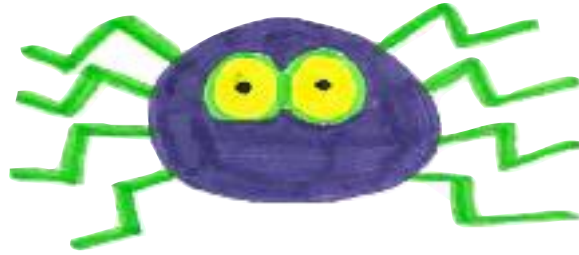


There are many public parks like city and national parks all over the world. Even more would be better.

More parks means more carbon dioxide is taken out of the air. As you know, the less carbon in the air, the less global warming. This protects our pollinating insects and reduces the numbers of insects which can harm us and our crops.

Check out Save our Parks to learn how you can protect our parks and slow climate change.





Resources used in Health and Climate Change.



Understanding Pollination

<http://www.neok12.com/Pollination.htm>

Climate Change NRDC

<https://www.nrdc.org/stories/climate-change-bites>

Global Warming and an increase in Lyme Disease

http://serc.carleton.edu/NAGTWorkshops/health/case_studies/lyme_disease.html

Kid's Health and Global Warming

<http://www.momscleanairforce.org/climate-change-childrens-health-facts/>

Kids Guide to Global Warming

<http://www.kidzworld.com/article/17859-the-kids-guide-to-global-warming#article-comment-box>

Bumblebees and Climate Change

<http://www.kidsforsavingearth.org/programs.html>

Climate Change and Dragonflies

<http://www.independent.co.uk/environment/nature/global-warming-threat-to-native-dragonfly-species-813331.html>

Increasing Insects and Crop Destruction

http://www.ucsusa.org/global_warming/science_and_impacts/_impacts/Global-warming-insects.html#.VONhZblZ1dg

Save Our Parks

<http://www.kidsforsavingearth.org/ecoactivities/saveourparks.pdf>

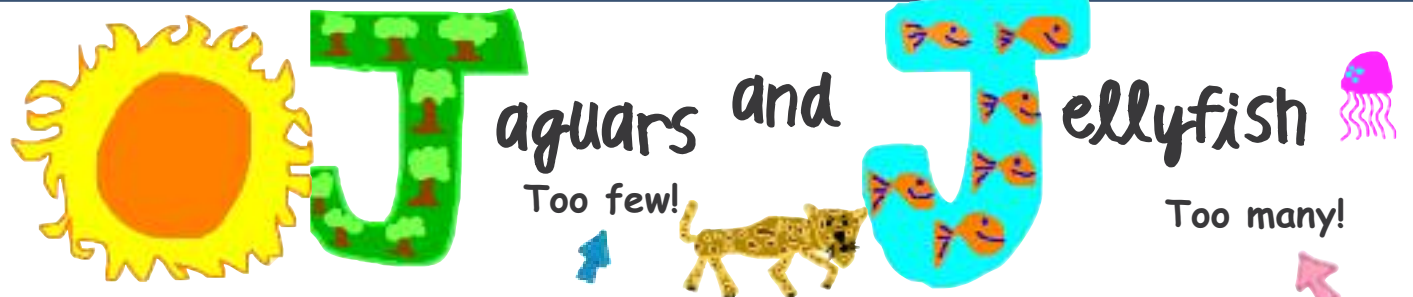
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Campaign to Cool Our Earth!



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Life on Earth is becoming more difficult for many animals and people. The loss or changes in some habitats (homes) is causing changes for all living creatures. This is happening in part because of climate change.

Wildlife needs a good place to raise its young. They need the right kind of food, fresh water, and the right kind of weather to survive. When weather is warmer than it should be, habitat will change.

Earth warms as a result of too much carbon dioxide (CO₂) from burning fuels such as oil and coal. We need carbon in the air but these fuels cause too much carbon. This creates heat like an extra blanket around Earth. This can cause rainforest habitats to change and disappear.

What's Happening to Jaguars?

Jaguars are becoming endangered for many reasons. The largest number of jaguars live in the Amazon Rainforests. Their habitat is disappearing due to things like clear-cutting of forests and global warming.

Changing weather (climate) can change the eco-system of habitats

Climate change or warming of Earth is creating forest problems like wildfires, storms, insect outbreaks that damage forests, and more species that don't belong in these habitats.

Jaguars have trouble surviving in these changing habitats.



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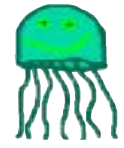
We can protect the Earth!



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While there are less jaguars, jellyfish numbers are growing. One reason for this is over-fishing in the ocean. This means fish that eat jelly fish are caught for humans to eat instead. They can't gobble up the jelly fish!

The other reason jelly fish are increasing is that oceans are warming as a result of climate change. CO₂ also creates more acid in oceans. These changes make oceans perfect habitats for many jelly fish. Other sea creatures often can't survive. Changes in sea water chemistry are happening throughout our world's oceans.



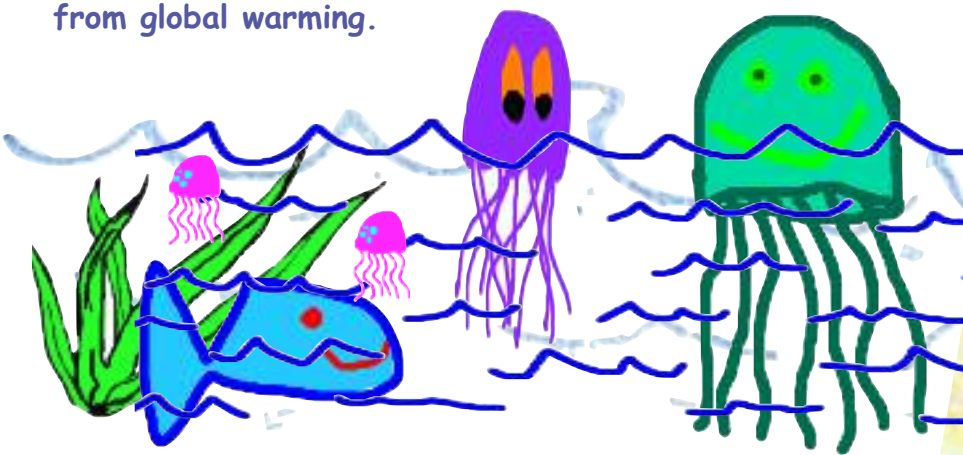
What Can I do?



You can help slow global warming and ocean acid by reducing your **"carbon footprint"**. This means you need to lessen your use of fossil fuels like oil and coal. These energy sources heat and cool homes, run factories and provide energy for cars and trucks.

You can help. Turn off lights Turn down your heat or turn up your air conditioner, Ride your bike to school or car pool with others,

These activities will help but what you can do in a big way is to **write letters**. You can influence factory owners like **car manufacturers**. You can **tell them** what you think about using fossil fuels instead of solar or wind power to run their businesses or gas to run their cars. You can also write to **governmental leaders** to explain how you feel about global warming. You may not think you can make a difference but **YOU CAN**. Practice your best handwriting or printing because your thoughts need to be easy to read. It would also be great for you to draw a picture of an animal that is suffering from global warming.



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Other threats for Jaguars

<http://www.defenders.org/jaguar/threats>

Global warming threat to habitat

<http://www.nature.org/ourinitiatives/urgentissues/global-warming-climate-change/threats-impacts/>

Global warming affects

<http://www.tropical-rainforest-animals.com/Global-Warming-Effects.html>

The jelly fish invasion.

<http://thestarfish.ca/home/2015/3/jelly-invasion-why-jellyfish-are-taking-over-our-oceans>

Ocean acidification

<http://www.pmel.noaa.gov/co2/story/Ocean+Acidification>

Climate changing forests

<http://www.rollingstone.com/politics/news/the-fate-of-trees-how-climate-change-may-alter-forests-worldwide-20150312>

Car brands

<https://www.globalcars-brands.com/all-car-brands-list-and-logos/>



An Education into Action Program: Climate Change A to Z

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The Kids Campaign to Cool Our Earth



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K is for Kids for Saving Earth

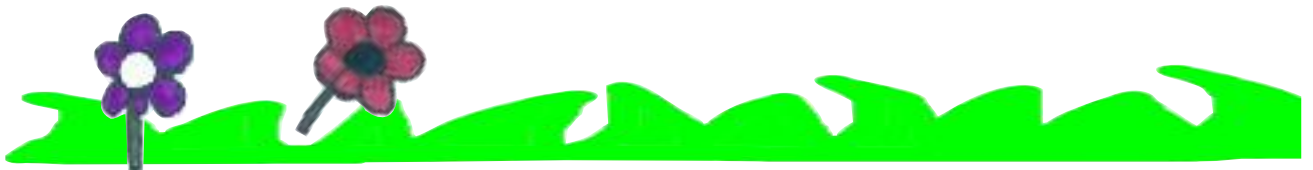


About founder Clinton Hill

People were just beginning to hear about global warming when 11-year-old Clinton Hill formed Kids for Saving Earth. He hadn't heard about it, but would have been very worried if he had. Clint was a creative, happy kid who believed in taking care of Earth. He also wanted peace on this planet.



Clint was concerned about disappearing habitats for animals. He worried many of our lakes, rivers, and oceans were becoming polluted with trash and poisoned with chemicals. He wondered if dolphins and whales would be safe. He learned from scientists that we were using too much oil and coal, so our air was becoming poisoned with increasing amounts of carbon dioxide. (CO₂)



For all these reasons Clinton founded Kids for Saving Earth and he asked friends at Sunny Hollow Elementary in New Hope, Minnesota to join. He believed that by uniting together kids could help save Earth.

Global warming would slow if the problems Clinton worried about were solved. Sadly Clinton died from cancer before he could fulfill his dream of a healthy Earth, but you can carry on his dream. This is why Kids for Saving Earth provides environmental education information to you and your instructors. When you learn about these environmental problems you can discover ways to correct them.



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Join Kids for Saving Earth
to help

Cool the Earth.



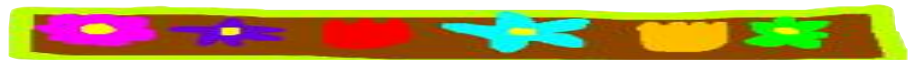
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Global Warming Causes Climate Change



Clinton knew restoring disappearing habitat, using less energy in our homes and businesses, and finding more ways to keep excess carbon dioxide out of the air would help Earth. All these activities would also help to cool Earth.

Global warming causes climate to change. It creates hotter air, and hot air can hold more moisture. More water in air makes more intense rain or snow storms.



By joining Kids for Saving Earth and the Cool Earth Team you can help slow global warming. If you haven't formed a club, ask your teacher to help you. Your teacher can form a club right in the classroom. KSE activities fit into reading, math, social studies and many other subjects you study in school

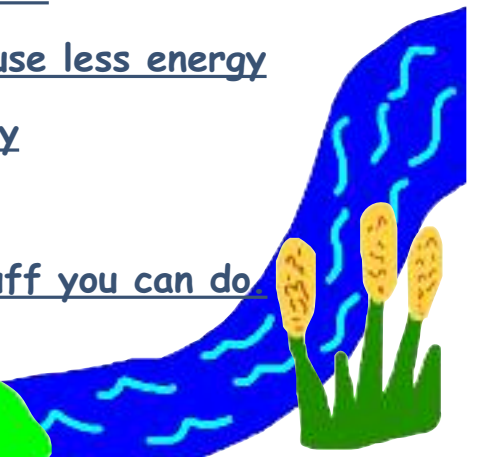
Our activities are easy to add to your classroom schedule. Check out Steps to Starting Your KSE Club to help you get started. You don't even have to call it a Kids for Saving Earth Club. Just join our group because united we are much stronger.

Check out this membership information and decide how you would like to join. Just you alone can make a big difference so join as an individual. There are educational programs for all ages including pre-school.

Check out great KSE activities to help Earth, including slowing global warming.



- ✓ Learn about global warming
- ✓ Protect Earth's parks
- ✓ Stop junk mail to use less energy
- ✓ Walk to School Day
- ✓ Wind Power
- ✓ Even more KSE stuff you can do
Wind Power-



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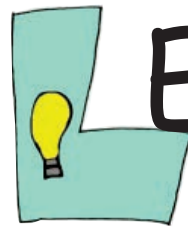
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L is for



Love

and



LED's



They say **LOVE** makes the world go round. It's true when it comes to Earth-saving too. Love is the most important ingredient in a recipe to protect our world. To protect Earth we must stop global warming. We will do that because we love Earth and all its living creatures.

Some people who don't love Earth are doing things that can harm it. They may not know it because they aren't taking time to really understand how climate change is changing Earth in a bad way.

When there is too much CO_2 in the atmosphere (air) around Earth the entire Earth can warm up. Energy like oil, coal and natural gas are called fossil fuels. When they burn they release CO_2 into the air. We need some CO_2 to act like a blanket around Earth but now the blanket is getting too thick. Earth is getting too warm.

It takes loving the Earth to remember to turn off lights that burn energy. When you love your planet you might walk more places rather than ride in a car that burns energy. It takes loving our world to write letters to government leaders about global warming.

Finally it takes love to wake up in the morning and think, "I want to protect my Earth and I will tell everyone I know about global warming."



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LED Lights



If you love the Earth...

you will really try to use LED lights to save energy and money.



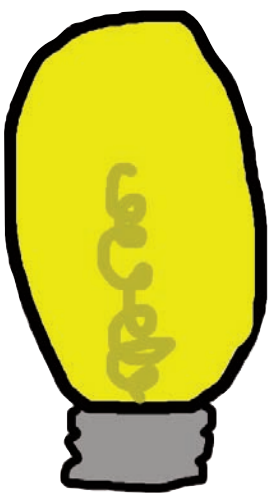
LED lighting is much better for Earth. By using them you will help protect the Earth from climate change by using less energy. And the good news is that they can work for up to 80,000 hours. It's true that they usually cost more money than old fashion light bulb but in the long run you will save money by buying LED bulbs.

- LED lights don't create heat like old-fashion incandescents and fluorescents (CFL's).
- LED lights use 75% less energy than incandescent lights
- LED lights last 25 times longer than incandescent lights.
- LED lights are safer to the environment than mercury filled fluorescents.



Going Green with Holiday Lights

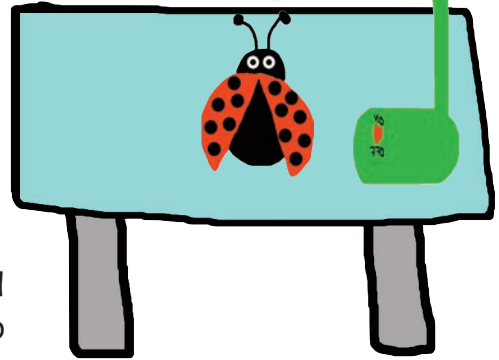
Of course not all of us put up holiday lights. It often depends on what religion we follow. But millions of people do use holiday lights. Those who do will save money, save energy and save Earth.



In addition to saving energy, LED holiday lights last much longer and are much cooler therefore safer on the tree. Also they are purer brighter colors!

Science Rules!

Stayed tuned though, because there are new and improved lighting methods being studied and created. Maybe we can do even better than LED lights.



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What makes LED lights better?

<http://www.oceanled-superyachts.com/what-makes-leds-better-than-bulbs.html>

What better than LED lights?

<http://www.treehugger.com/interior-design/luxim-plasma-light-bulb-kicks-some-serious-led-butt.html>

<http://www.telegraph.co.uk/science/2016/03/12/return-of-incandescent-light-bulbs-as-mit-makes-them-more-effici/>

Holiday Lights

<https://www.christmasdesigners.com/why-buy-led-christmas-lights/>

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Money and Methane

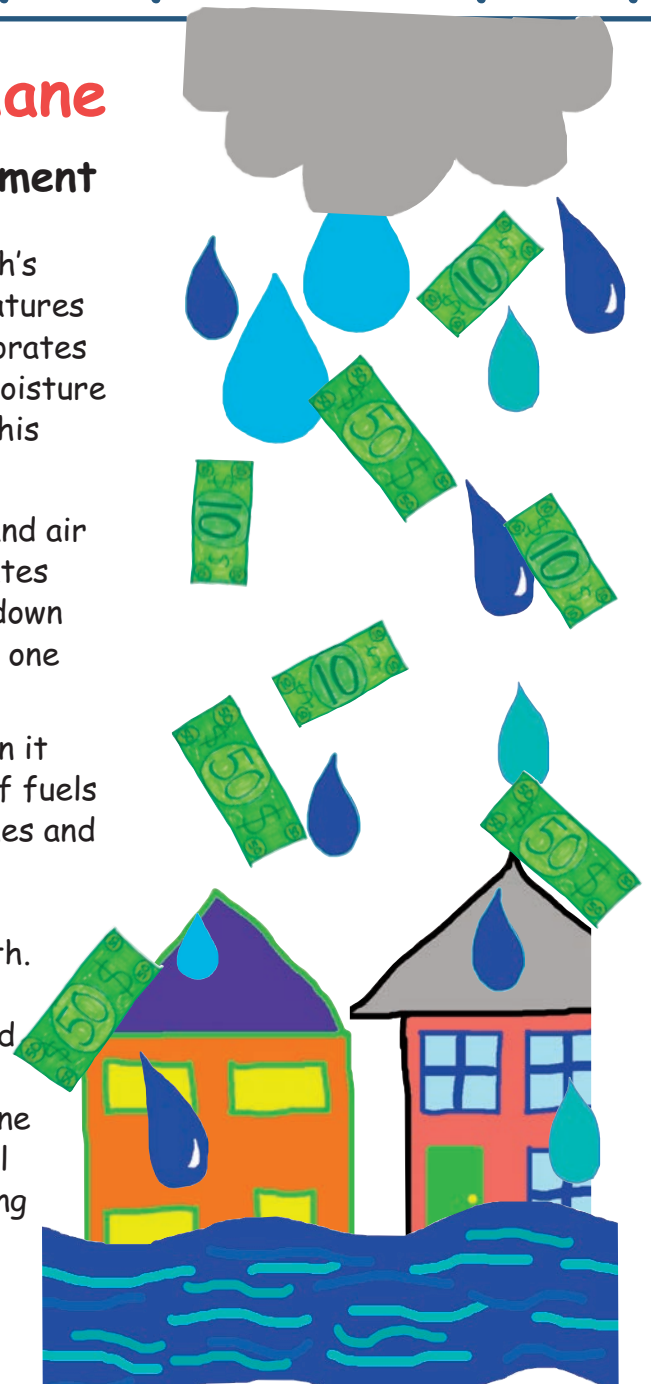
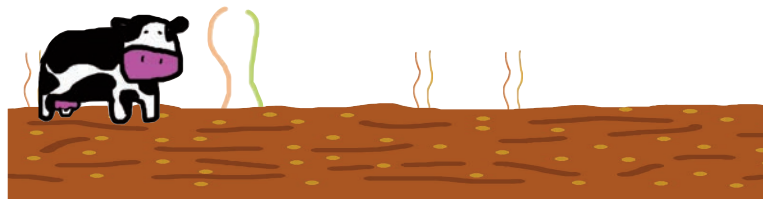
Global Warming is costing the government and us, lots of **money**.

There's a lot of hot air out there! It's causing Earth's climate to change and become warmer. When temperatures rise and the air becomes warmer more moisture evaporates from land and water into Earth's atmosphere. More moisture in air usually means we will see more rain and snow. This means there are more heavy downpours and storms.

The warming of Earth also causes ocean currents and air patterns to change. The location where water evaporates might not be the area where that water comes back down as rain. That's one reason you might see big storms in one spot on Earth and very dry weather in another area.

So we don't want our atmosphere to heat more than it should. It's warming mostly because of the burning of fuels like gas and oil from cars, trucks and heating our homes and businesses.

However, another gas that heats our Earth's air is methane. Methane comes from many sources on Earth. When organic wastes like garbage decompose we get methane. Also sources like wet lands, growing rice and the process of digestion in cattle causes methane. These things are hard to control, but much of methane comes from the process of taking fossil fuels like coal and natural gas out of the ground (extraction). By using more solar and wind power we will use less gas.





We are having more and more weather events like hurricanes, tornados, and flooding caused by global warming. Because of these our county, state and federal government have to spend huge amounts of money to help people repair their lives. It takes lots of money to help people who are hurt and to repair homes and businesses. This means more taxes are needed and it will cost us more money. It's another important reason we have to slow climate change

So let's get to work slowing global warming.

1. You become an educator. Spread the word about using less gas. If you are afraid you can't remember what to say, print out this campaign info to help you remember.
2. Ask your instructor to invite other teachers to join the campaign.
3. Become an [Earth Inspector](#) in your own home and discover how you can use less energy.
4. Support [the KSE rainforest program](#) to help keep Earth forested. Forests absorb carbon dioxide we create by using gas, coal and oil.
5. [Write letters](#) to tell your government leaders that global warming is real and ask them to help make laws to protect us.

Put methane from garbage to work!

Methane is created when organic waste decays. Garbage dumps release a lot of methane and so does manure at cattle ranches. There are ways to take this methane and use it to make energy. Otherwise it is absorbed into our Earth's atmosphere causing more greenhouse gas which warms the Earth.

More than 500 landfill-to-energy projects are operating in the United States. By 2009, Germany produced enough energy from methane (biogas) to power 3.5 million homes. Learn more by [checking out this link from the EPA](#). Try drawing a picture of the biogas landfill project seen on the link.



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A Students Guide to Global Warming

<https://www3.epa.gov/climatechange/kids/impacts/signs/precip-patterns.html>

Kids Learn About Methane Gas

<http://encyclopedia.kids.net.au/page/me/Methane>
www.kids.net.au

Epa on Methane Gas

<https://www3.epa.gov/climatechange/students/solutions/technologies/methane.html>

Methane Gas info from Clean Water Action

<http://www.cleanwateraction.org/2016/07/22/cutting-methane-leadership-california>

Cutting Methane Gas Emissions to Stop Global Warming. Earth Justice

<http://earthjustice.org/features/everything-you-need-to-know-about-methane?gclid=CJbg2efB2s4CFQobaQodPO4O4g>

Methane as a fuel

<https://www.tvakids.com/electricity/landfill.htm>

The Financial Cost of Global Warming

<https://www.theguardian.com/environment/2012/sep/26/climate-change-damaging-global-economy>

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National Parks and National Security

Problems that come from climate change can be big! Too much carbon dioxide (CO_2) is filling our planet's atmosphere. This extra CO_2 comes from burning coal, gas, methane and more. These gases are called green house gases. CO_2 captured in Earth's air often creates hotter air causing extreme weather and flooding.

Warmer air causes ice on Earth's glaciers and North and South Poles to melt. This causes the shorelines of our planet to begin to flood. Beaches in front of homes, military bases and other buildings begin to disappear.



Military bases are important for keeping Earth's nations secure, helping people during bad weather and much more. It's very important that these bases aren't destroyed because of hurricanes, tornados and floods. In the United States, many military bases on shorelines have already had great damage from storms.



National forests can help slow climate change. Sadly we are having trouble protecting them for several reasons and including the effects of global warming.

Because Earth is warming, plants, trees and animals in our forests struggle to survive in their new climate. Some can adapt, some will move to different areas but some will not survive.

Hurricanes, tornados, floods and fires in forests are all increasing due to global warming and can cause severe damage.

Instead of loosing national forests to logging and climate change that causes fires, we need to be increasing and protecting our forests.

Forests help cool the Earth. [Learn about forest fires here.](#)



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Kids Can Help Protect National Parks

An easy thing kids can do to help national parks is to visit them. . When parks are busy, government leaders will understand how important they are to protect. When you visit parks you will love them and want to protect them. So when planning a family vacation, ask your family to take a trip to a national park or forest. Then write a letter or email to park services thanking it and asking it to create more parks.

Check out [KSE's Trip to the Forest book](#) to learn about exploring a forest.

Power Posters

Your own ad campaign!

Kids can also help protect our parks and our national security by making Power Posters. KSE kids have been doing this for years. They put signs up in their schools, homes, libraries, and local stores. Wherever you put them up, always ask permission. Think of a good title and use bright colors to make your poster. An example of a title might be: **Protect our National Forests to Slow Global Warming.**

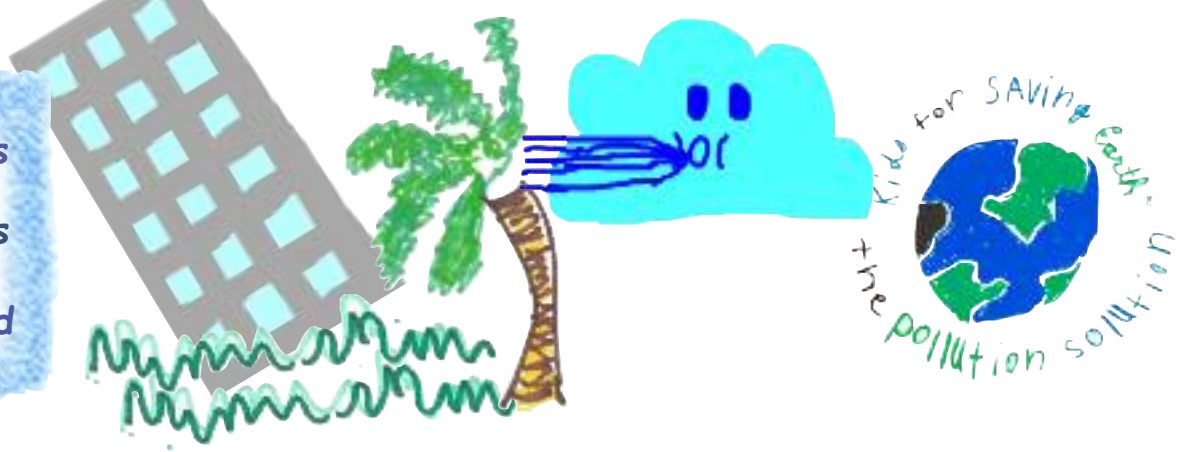
Check out our KSE [Save our Parks](#) program for more activities you can do to stop climate change by protecting parks.

Talk about it!

National security is a topic kids can't do a lot about but they can talk about it to friends, parents and teachers. You can also write letters to government leaders about global warming. Ask them to be sure our national security is in good shape and to protect military bases from flooding and storms. Slowing global warming will help. Click on this [Epal link](#) to find addresses for the president, vice president and other government leaders. If you want to meet your congressperson check this out: [Meet your Congressperson](#). Finally, write a letter about how climate change is harming our national security for your local or school newspaper. Become a [KSE News Reporter](#).



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Impacts of global warming for kids

<http://www.c2es.org/science-impacts/basics/kids>

Climate change and your national forests.

http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5436761.pdf

National Security

<http://www.americansecurityproject.org/climate-security/>

Global Warming

<http://globalwarning.medill.northwestern.edu/main/>

10 things kids can do to help prevent global warming.

<http://makeanimpact.c2es.org/kids/toptentips>

Climate change blamed for half of increased forest fires.

http://www.nytimes.com/2016/10/11/science/climate-change-forest-fires.html?_r=0

Helping Kids Explore Parks

<https://www.nationalparks.org/our-work/programs/npf-kids>

Top Problems Facing Our Parks.

<http://www.nationalgeographic.com/travel/top-10/national-parks-issues/>

Create An Ad Campaign

<http://nationalgeographic.org/idea/protect-your-parks/family/>

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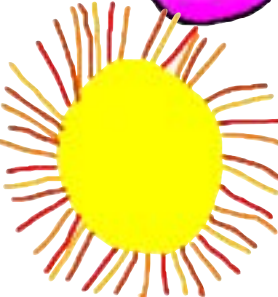
The Kids Campaign to Cool Our Earth!



from Kids for Saving Earth kse@kidsforsavingearth.org . www.kidsforsavingearth.org

O is for Organic Lands

Finding a solution to global warming
is really hard to do!



There is too much carbon dioxide (CO_2) in this planet's air so it's causing Earth to heat up. Even if we stop using fossil fuels like oil and coal, Earth will continue to warm because of CO_2 already in the air. This will cause melting of our Arctic's frozen soil which will release even more CO_2 . We must find ways to remove CO_2 from our atmosphere.

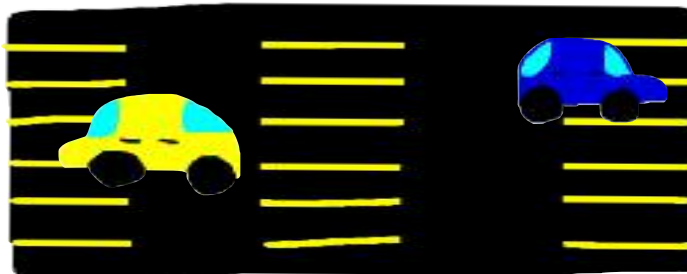
Bad farming practices are a major cause of climate change. For thousands of years people have been cutting down CO_2 -absorbing plants and forests to create more farming land. As this happens CO_2 stored in soil releases into The air.



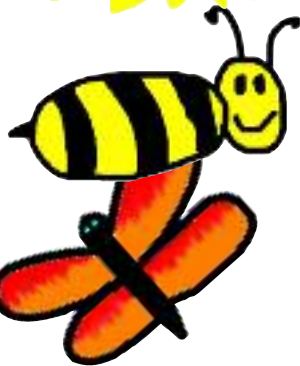
Big agricultural farming methods ("big ag") use these methods and other bad practices to create even more carbon release into the air. "Big ag" uses pesticides. Land sprayed with pesticides destroys both good and bad bugs. Good microbes, bacteria, insects and more are needed to keep soil healthy. Healthy soil absorbs (sucks in) and stores huge amounts of CO_2 .



Another reason the soil on Earth can't absorb CO_2 is because so much of it is covered with homes, buildings, concrete or asphalt parking lots and roads.



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**We can do it.
Here is how.**

Of course we need some CO₂ in the air to act like a blanket around Earth to keep just the right amount of heat in our air. But now with too much CO₂ in Earth's air we have to find ways to keep and absorb more CO₂ into Earth's soil.



Carbon Sequestration

The words "carbon sequestration" sound hard to understand but what they stand for is very important. When we sequester (store) carbon in soil, we keep it away from Earth's air. Organic land from an organic style of farming can work miracles. Healthy soil teaming with organisms will pull in carbon to use and store. All plants and organic lands will absorb tons of CO₂. This will help cool the Earth.

How Can Kids Help Store Carbon Dioxide in Soil?

You can be a part of this important way to lower the amount of carbon dioxide in our atmosphere to slow global warming.

1. Write your government leaders to tell them to develop programs to help farmers use organic farming methods.
2. Learn how to garden organically. Check out [KSE's Action Program Organic Gardening](#).
3. Create organic lawns and gardens in your community to absorb more CO₂.
4. Write to corporations like Target Stores. Tell them to create parking areas that have lots of open space with soil and plants to slow global warming.

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Rodale and Organic Farming.

<http://rodaleinstitute.org/reversing-climate-change-achievable-by-farming-organically/>

Soil Will Save Us

<http://rodaleinstitute.org/shop/the-soil-will-save-us/>

YouTube of author Kriston Ohlson Soil Will Save US

https://www.youtube.com/watch?v=SP_t-kOO_R4

Floor of the Forest

<http://www.dailyliked.net/fantastic-fungi/>

Organic farming and sequestration

<https://www.ncbi.nlm.nih.gov/pubmed/21141778>

<http://www.strauscom.com/rodale-whitepaper/>

<http://www.treehugger.com/corporate-responsibility/organic-farming-could-stop-global-climate-change.html>

Soil Carbon Restoration

http://www.nofamass.org/sites/default/files/2015_White_Paper_web.pdf

Building Soils: Sierra Club

<http://www.sierraclub.org/loma-prieta/soils-committee/building-soils>

Plants and Carbon Sequestration

<https://www.nps.gov/teachers/classrooms/carbon-sinks.htm>

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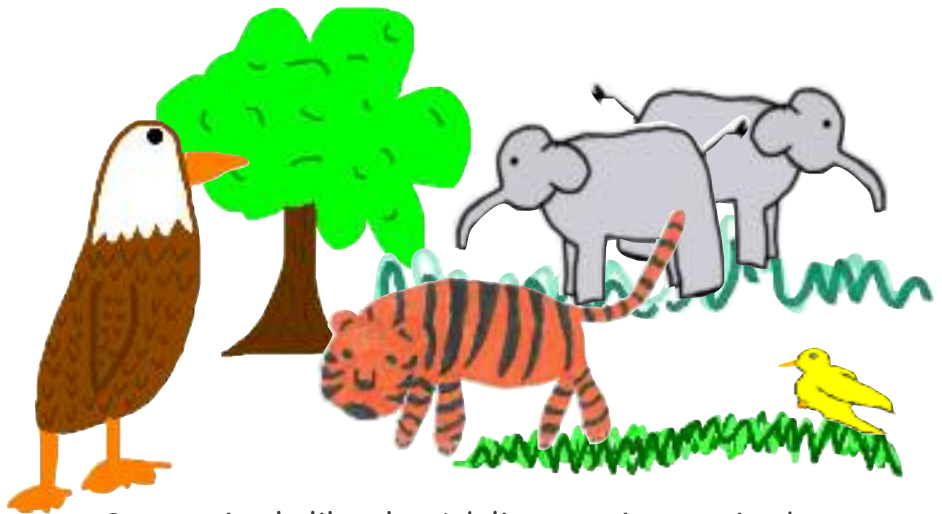
precious Species



Kids for Saving Earth invented the term "Precious Species"[™] to help you understand that all species of plants and animals are very important. All species are needed for the balance of nature and the health of Earth. Species are groups of animals or plants that are similar and can produce young animals or plants.

Endangered species are those plants and animals in danger of extinction. Extinction means that the animal or plant disappears forever. Dinosaurs are a good example of extinction. They exist no more.

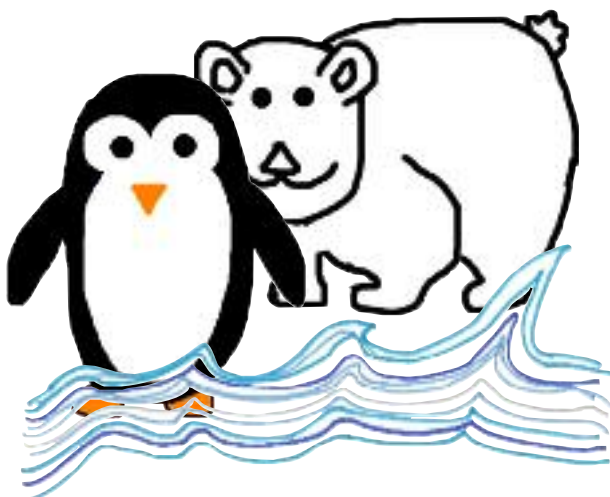
There are many reasons why this is happening. One of the biggest reasons is climate change. Global warming is causing the weather and animal homes to change all over the planet. This makes it difficult for many plants and animals to survive.



Some animals like the Adelie penguins survive by eating Krill which are found under ice sheets in the Antarctic Sea. However, ice is beginning to disappear near the South Pole and penguins have to travel much farther to find ice. Many do not survive their search for food.

Seahorses are very sensitive to warming water temperatures caused by global warming. Their populations have lowered. Also, sea otter populations are dropping due to warming ocean waters.

The melting of polar ice also causes major problems for polar bears who rely on ice for hunting for food. Many of them are starving.







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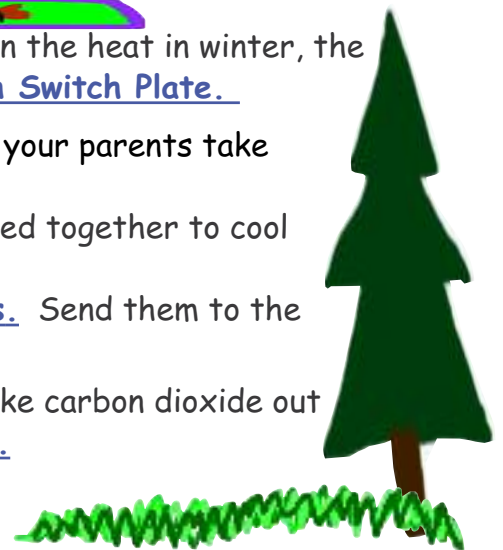
What do our Precious Species need to survive?



-  The right temperature
 -  Healthy water and just the right amount
 -  A good source of the right kind of food
 -  Safe and healthy habitat (homes)
- To give our precious species what they need to survive we must slow global warming. Global warming is caused by burning fossil fuels like gas and coal. When these fuels burn, carbon dioxide (CO₂) is created and surrounds Earth like a big blanket. It is a blanket that is too thick. It makes Earth warm up too much. Learn more about [Burning Fossil Fuels here](#). So what we have to do to protect all precious species is not use so much fossil fuels.

Here is how you can help solve this problem.

1. Help your parents use less energy in your home by turning down the heat in winter, the AC up in summer, and turning off lights. Make a [Save the Earth Switch Plate](#).
2. Take the ["Tune Up the Earth Challenge"](#) Learn how to help your parents take better care of your car. You'll protect precious species!
3. Join the [Cool Earth Team](#). If there are millions of kids united together to cool the Earth, government leaders will listen.
4. Draw pictures and write about your favorite [Precious Species](#). Send them to the president to tell him to help stop global warming.
5. Plant millions and millions of trees and other plants to help take carbon dioxide out of the air. Also protect our existing trees by [Saving Our Parks](#).



Meanwhile, you can help protect Precious Species in other ways. Clean up your beaches so precious species don't become harmed by pollution. Learn more by reading [The Great Garbage Patch](#).

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Threats of Global Warming.

<http://www.worldwildlife.org/threats/effects-of-climate-change>

There are over 1400 Endangered Species Threatened by Global Warming

<https://thinkprogress.org/over-1-400-endangered-species-are-threatened-by-climate-change-says-new-red-list-896bd08fd4b4#.rq3bunn3f>

10 Animals Threatened by Global Warming

<http://www.usnews.com/news/energy/slideshows/10-animals-threatened-by-global-warming>

Effects of Global Warming on Wildlife.

<https://www.nwf.org/Wildlife/Threats-to-Wildlife/Global-Warming/Effects-on-Wildlife-and-Habitat.aspx>

Other reasons species become endangered.

<http://www.factmonster.com/ipka/A0906938.html>

Find Endangered Plants in Your State.

<https://plants.usda.gov/threat.html>

Strange Endangered Plants

<http://webcoist.momtastic.com/2008/11/03/strange-rare-bizarre-endangered-flowers-plants-and-trees/>

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The Kids



Campaign to Cool Our Earth!

from Kids for Saving Earth kse@kidsforsavingearth.org . www.kidsforsavingearth.org

Q is for Queen Bees and Their Colonies



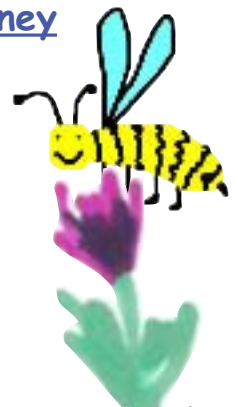
So many humans don't seem to know that it doesn't take much to upset the balance of nature. When our weather is much different than usual, it will change the way all beings in nature can live. Many creatures can not adjust to climate change like weather getting too warm or oceans, rivers and lakes becoming too heated and unlivable. As global warming increases on our planet, many animals move to new places to live. Others may die.



Right now, bees are dying at a record rate. We count on bees to pollinate our plants in order to grow our food. Pollination happens when bees look for food (sugar syrup/nectar). They seek pollen in flowers and carry it from flower to flower. [\(check out this yellow pollen\)](#) . This activity must happen to help flowers produce food. [Learn more about pollination here.](#)

There are several reasons so many bees are dying. Learn more about how pesticides are harming bees in the [KSE Honey Bee Project](#).

Global warming is also a huge problem for bees. Our planet's climate is warming because too much CO₂ from burning gas, coal and oil has created too thick a blanket of gas around Earth. In some areas flowers are growing and blossoming earlier than they should. If bees can't get to the plants in time to pollinate, the seeds or fruit won't grow. Other places are too dry or wet for flowers to grow. If plants don't grow, bees will not be able to eat or pollinate.



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BEEES



How can we protect queen bees and their colonies?

Queen bees are extremely important to all bee colonies, but drones and worker bees are just as important. All bees need to be protected to preserve our food supply. When you see bees flying from flower to flower, they are pollinating those plants and helping us grow plants for food. If we can protect Earth from global warming we will help protect bees.

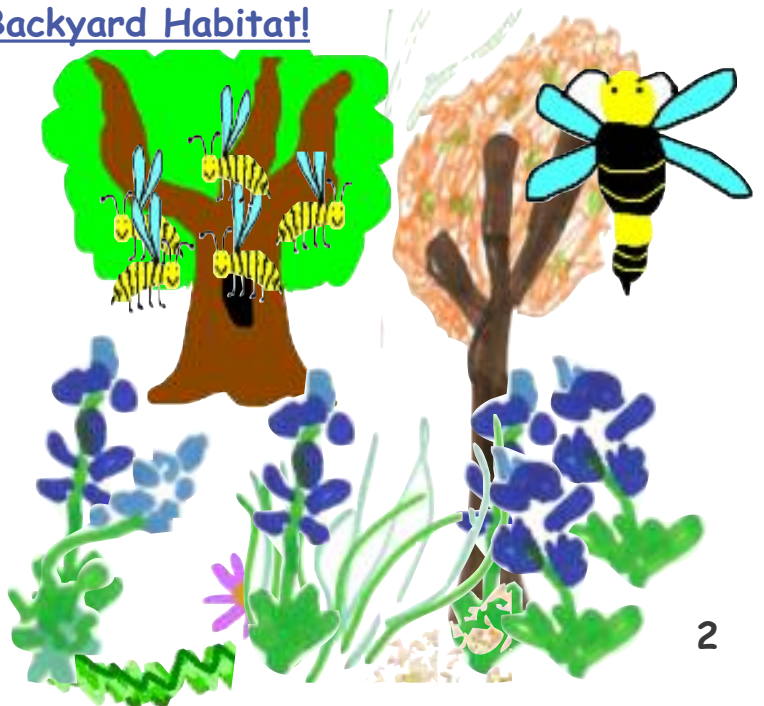
It's important to learn about bees in order to protect them. You will discover how careful we must be to keep nature healthy and in balance. Check out San Diego Zoo information on bees, Also learn about workers and drones here. Also you can ask your parents to sign the Beyond Pesticides bee pledge.

Write a poem about protecting bees from global warming. Draw a poster and put your poem on it. Ask local stores to place your poster on their walls. Display in your school too.

Plant lots of trees and flowering plants. This will help in two ways. Plants and trees will help cool Earth and provide food for bees.

When bees pollinate, we will have more food. Here's how to plant a bee garden or plant a Clinton's Backyard Habitat!

Get excited about bees and spread the message about how important they are to us!



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About Queen Bees

<http://www.buzzaboutbees.net/honey-bee-queen.html>

<http://beekeepinglikeagirl.com/6-things-you-didnt-know-about-queen-bees/>

SMITHSONIAN: Bees and Climate Change

<http://www.smithsonianmag.com/smart-news/how-climate-change-messing-bees-ability-pollinate-180956523/>

Bee Blog for Kids

<http://bee-magic.blogspot.ca/>

NRDC: Bee Colony Collapse

<https://www.nrdc.org/stories/buzz-about-colony-collapse-disorder?gclid=CPTJrOXwmtECFca4wAodtL8EfA>

NASA: Pollination and Climate Change

<http://earthobservatory.nasa.gov/Features/Bees/bees3.php>

Bees, Crops and Climate Change

<http://www.telegraph.co.uk/news/earth/earthnews/10730667/Bees-and-the-crops-they-pollinate-are-at-risk-from-climate-change-IPCC-report-to-warn.html>

USDA Bee Research Center

https://www.youtube.com/watch?v=eM5uL1_0gOc

Why are Bees Dying?

<http://www.motherjones.com/environment/2015/07/climate-change-killing-bumblebees>

Queen Bees Dying

<http://www.producer.com/2016/02/queen-bees-dying-sooner-heres-why/>

Global Warming Bees and Flowers

http://www.huffingtonpost.com/dr-reese-halter/global-warming-bees-and-f_b_758503.html



Nobody is Talking about Bees and Climate Change

<https://greenfuture.io/sustainable-living/urban-beekeeping-pros>

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The Kids Campaign to Cool Our Earth!



from Kids for Saving Earth kse@kidsforsavingearth.org . www.kidsforsavingearth.org

Rainforests and Global Warming

Rainforests are precious and beautiful. They can help protect Earth from global warming. They are called rainforests because they receive a lot of rain. They only cover about 7% of Earth's surface but about 50% of our plants and animals live in these magical forests.

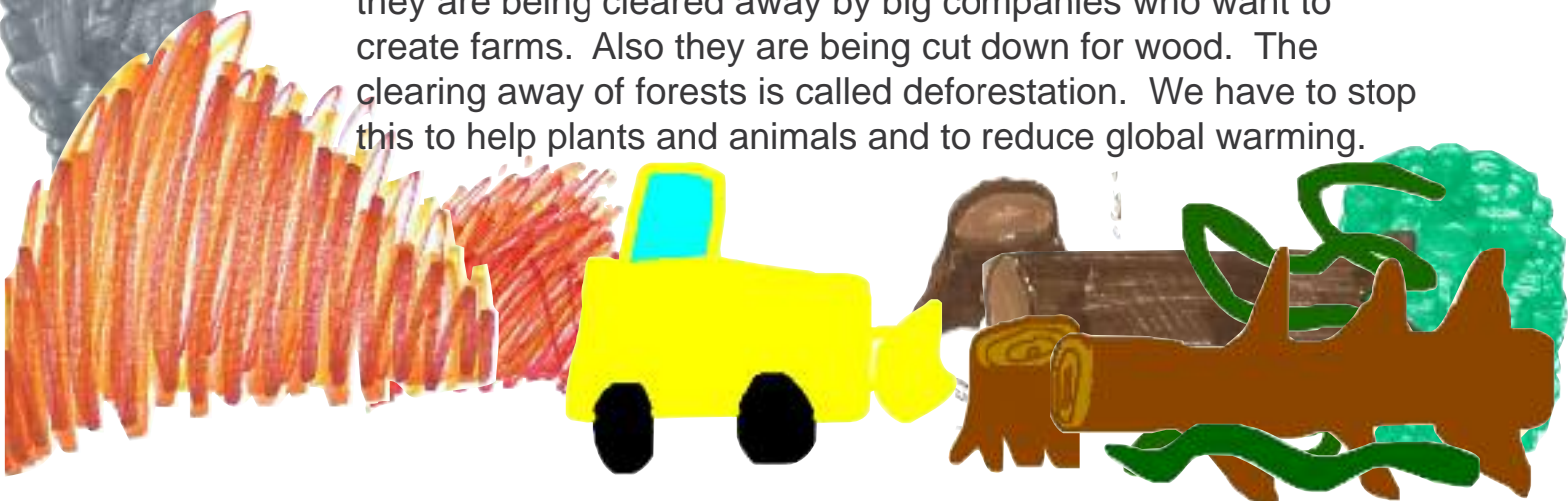


We are having huge problems with our planet warming up too much. The major cause is that we are all using too much energy from gas, oil and coal. When these fuels are burned to run our trucks, cars, factories, and more, they release carbon dioxide (CO₂) into the air.

We need some CO₂ in our atmosphere around Earth but now we have way too much. This thick blanket of CO₂ is keeping Earth too warm causing climate change.

What is exciting is that scientists have found that rainforests can soak up millions of tons of CO₂ from our atmosphere. This will help our climate stay cooler.

Sadly our rainforests are disappearing very quickly. Too often they are being cleared away by big companies who want to create farms. Also they are being cut down for wood. The clearing away of forests is called deforestation. We have to stop this to help plants and animals and to reduce global warming.



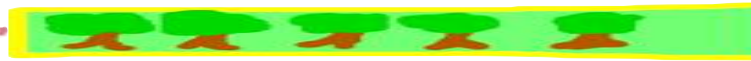
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R

for Rainforest



Here are some ways you can help protect our rainforests!



We can help protect rainforests but we have to hurry. They are disappearing at the rate of many thousand football fields each day.



Learn more about rainforests so you can talk to adults and ask them to help you protect these important places. Check out this [KSE fact sheet](#).



Draw pictures of plants and animals of the rainforest. Find animal species [here](#) and plant species [here](#). Next create a **rainforest bulletin board** in your classroom. You can also scan them and email them to your government leaders. Ask them to help you protect rainforests.



Kids for Saving Earth works with Duke University and the Organization for Tropical Studies to protect sections of a rainforest in Costa Rica. We call it the [Kids for Saving Earth Rainforest](#). You can help protect this rainforest by donating [here](#). You'll receive a poster and a certificate.



There are many Earth-saving ways you can earn funds for your environmental activities. Check out these suggestions: **Reading for the Earth**. **Order buttons from KSE** that you can design yourself. Sell them as a fund-raiser.



Finally join the [Cool Earth Team](#). "United with friends we will save the Earth."





Rainforest Project Resources

The Nature Conservancy

<http://www.nature.org/ourinitiatives/habitats/rainforests/index.htm>

The Rainforest Foundation US

<http://www.rainforestfoundation.org/>

Deforestation

<http://www.nationalgeographic.com/environment/global-warming/deforestation/>

Rainforests Can Slow Global Warming.

http://www.huffingtonpost.com/brett-byers/rainforest-up-to-half-the-global-warming-solution_b_8760622.html

Rainforest Charitable Trust.

<http://www.amazoncharitabletrust.org/>

Kids for Saving Earth Rainforest Programs

<https://kidsforsavingearth.org/programs/rainforest.htm>

<https://kidsforsavingearth.org/RainforestFacts.pdf>

<https://kidsforsavingearth.org/AmigosDeLaSelva.pdf>

Rainforest Animals

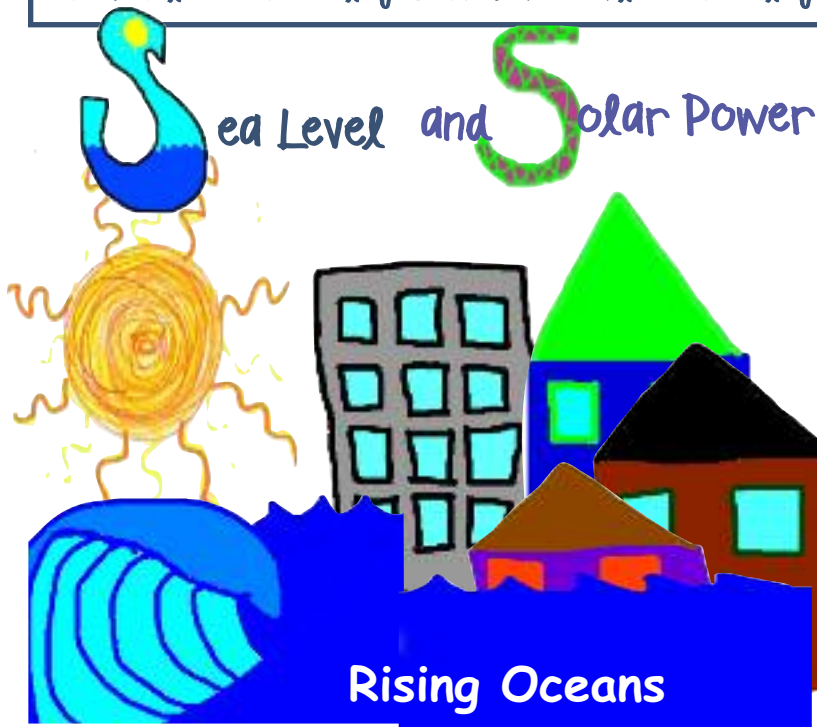
<http://www.activewild.com/rainforest-animals-list/>

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The Kids Campaign to Cool Our Earth!



from Kids for Saving Earth kse@kidsforsavingearth.org . www.kidsforsavingearth.org



Earth is warming. The main cause of this climate change is too much carbon dioxide (CO₂) in Earth's atmosphere (air). When we burn fossil fuels like oil and coal, CO₂ is released into air. Some CO₂ in the air protects Earth from being too cool. However, now we burn too much energy to fuel industry, cars, trucks, and airplanes. Also, we heat and cool more and more homes and businesses. This creates too much CO₂ into Earth's air. It keeps our planet too warm.

There are two reasons the sea is rising. 1. Because of global warming the sea ice is melting in the North and South Poles. 2. Oceans expand as they heat up. When our oceans sea levels rise, millions of people living near shores can lose their homes and businesses. They are also harmed by storms that more easily push ocean water into populated (where people live) areas. Another problem with the seas rising is that salt water in the oceans mix with fresh drinking water.

Solar Power

Although heat coming from the sun and captured beneath the blanket of CO₂ around Earth would seem to be part of global warming problems, it can be one of the solutions. Instead of using fossil fuel energy, we can use sun power for just about any energy need. We also need sun for our health but be a little careful: [Check out UnSun Fun.](#)

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Sea Level and Solar Power

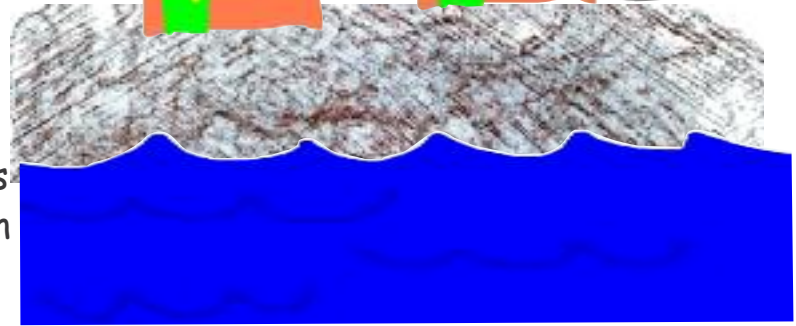


Solar Power is power that comes from the sun. Using this kind of power is a very important way to reduce global warming and slow the rising of ocean waters.

The amount of solar energy Earth receives each day is many times more than the amount of energy people use each day. Let's put the sun to work so we won't have to burn coal and oil which harm our planet.

Scientists have created ways to take sun power and turn it into electric for almost all our energy needs. Sun rays are collected in cells called "photovoltaics." Then they are converted (changed) into electricity. Scientists are working on developing better and less expensive solar cells.

Learn more about sun power by checking out KSE's [A Bright Idea](#).

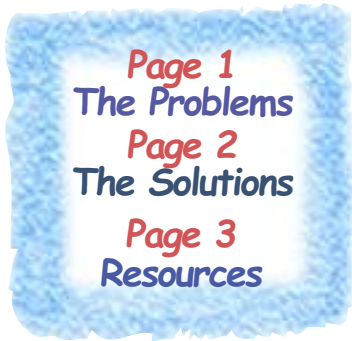


How Can We Help Earth?

[Become a KSE Reporter.](#) Write a story about why solar power will help stop global warming. Email it to your local newspaper. Tell them you're a Kids for Saving Earth kid. Check out [this map](#) of how the sea level might rise in SE United States if we can't slow global warming. Draw this map and show flooded areas in red. Then write a letter to [congressmen](#) to let them know you are worried about flooding from our

Paint a [KSE switch plate](#) for your bedroom to remind you to turn off lights when you're not using them. You can also make more switch plate reminders for other rooms.





Sea Level and Solar Power Resources

Sea Level: Union of Concerned Scientists

<http://www.climatehotmap.org/global-warming-effects/sea-level.html>

Sea Level: National Geographic

<http://www.nationalgeographic.com/environment/global-warming/sea-level-rise/>

Planet Health: Sea Level

<http://climatekids.nasa.gov/health-report-sea-level/>

Britannica on Global Warming

<http://kids.britannica.com/comptons/article-276220/global-warming>

Global Warming for Kids

<http://www.explainthatstuff.com/globalwarmingforkids.html>

Science Facts on Solar Power

<http://www.sciencekids.co.nz/sciencefacts/energy/solarpower.html>

A Blanket Around the Earth

<https://climate.nasa.gov/causes/>

Solar Cells

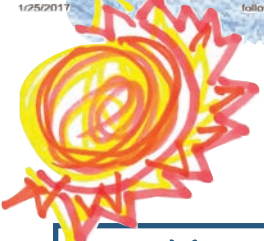
<https://www.eecs.mit.edu/eecsenergy/solarpv.html>

Solar Power Uses to stop Global Warming

<https://www3.epa.gov/climatechange/kids/solutions/technologies/solar.html>



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The Kids Campaign to



Cool Our Earth!

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Tundra and Technology



What is Tundra?

Tundra is soil that is located just above permanently frozen soil called permafrost. The climate in tundra areas is very cold. During summer Tundra is soft and boggy (squishy). Moss and certain grasses and shrubs can grow in this area, but no trees. There are a few animal species that live in this habitat.

About 20% of the land on Earth is a type of tundra. It is located mostly in northern arctic areas and southern antarctic lands. Another type of tundra is above the tree line on mountain tops.



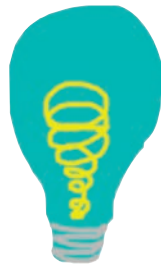
Polar bears, caribou, arctic fox, arctic hare, snowy owls, migrating birds, and musk oxen count on tundra for their food. Some animals migrate (pass through) on their way to other areas but some animals live on the tundra all year. Even cold tundra has lovely, colorful blooming summer plants.

What is the problem?

Global warming is caused when too many greenhouse gases like methane and carbon dioxide are released into the air and heat up the atmosphere. If tundra land areas begin to thaw because of Earth warming, it will change the climate and habitat for animals who call it home. The ecosystem of Earth is interconnected and changing a habitat can change survival for certain animals and plants. Scientists continue to study the affects of global warming on tundra as well as what happens to CO₂ and methane as permafrost melts.



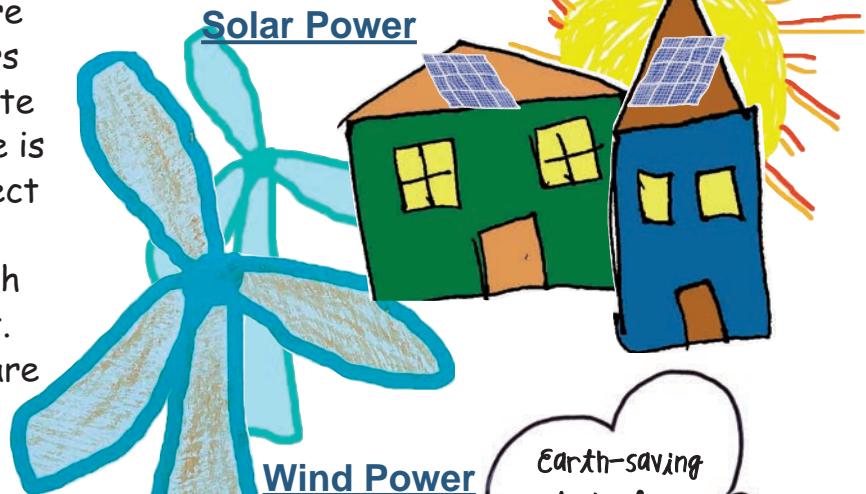
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Technology Can Help Stop Global Warming

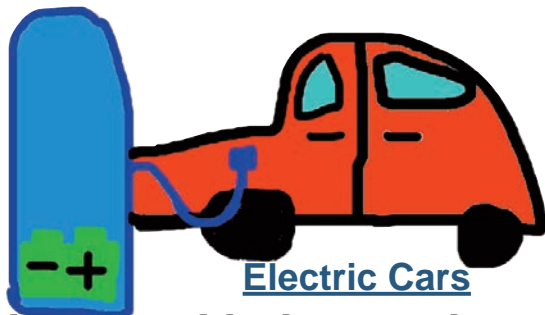
There is a lot of technology out there that is not good for Earth such as cars and trucks that gobble up oil and create a lot of pollution. Now, however, there is new technology available to help protect Earth from global warming.

Technology that's not good for Earth produces CO₂ which warms our planet. The technologies shown on this page are some that are healthier for Earth.



Solar Power

Wind Power



Electric Cars

How can I help my planet?

LED Lights

Ocean Wave Technology



OPT Powerbuoy

- 📍 Become an inventor and discover more technology to protect Earth
- 📍 Check out tundra animals, plants and flowers. Draw pictures and send them to your government leaders. Ask them to protect tundra.
- 📍 How many adults can you convince to take the KSE Promise? Print it out and ask them to sign it. Then email KSE to let us know how many you convinced to protect Earth.
- 📍 Send a story about your school or class Earth-saving activities. We will place it on our Defender of the Planet page on our KSE web site.



Tundra and Technology Resources

Britannica: What is Tundra?

<https://www.britannica.com/science/tundra>

Tundra's Importance

<https://www.quora.com/Why-is-the-tundra-biome-globally-important>

EPA on Climate Change and Global Warming

<https://www.epa.gov/climatechange/climate-change-basic-information>

National Geographic

<http://www.nationalgeographic.com/environment/habitats/tundra-threats/>

Kids Do Ecology

<http://kids.nceas.ucsb.edu/biomes/tundra.html>

Ocean Wave Energy

<https://www.boem.gov/Ocean-Wave-Energy/>

Electric Car Video

<http://www.nationalgeographic.org/video/edu-electric-vehicles/>

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The Kids Campaign to Cool Our Earth!



from Kids for Saving Earth kse@kidsforsavingearth.org . www.kidsforsavingearth.org

U is for Urban Heat Islands and
United Nations



Urban areas all over the world are locations which have many people living close together. These cities are filled with lots of human activity. There are more cars, more industry, more homes, schools, tall buildings, roads and parking lots than in rural (countryside) areas. All these hard surfaces absorb and reflect the sun's heat, creating even more heat. This increased heat in cities causes Urban Heat Islands.

In most cities there are few meadows, shrubs and forested areas to absorb CO_2 . This is a problem because in urban areas there are more cars, trucks and buildings releasing CO_2 into air. This increases heat in the cities and global warming.

CO_2 is greenhouse gas that becomes a part of Earth's atmosphere creating a thick blanket around our planet. We need a thin blanket of CO_2 around Earth to keep our planet at just the right temperature. When the blanket gets too thick, the Earth warms too much. This changes our climate and affects how plants grow, animals live and humans survive. Among other things, a warming climate increases storms and insects that can do great damage to our planet and our health.

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United Nations Framework Convention on Climate Change



United with friends we will save the Earth

from the Kids for Saving Earth Promise





The United Nations (UN) is an organization made up of countries from all over our Earth. It promotes working together to solve world-wide problems such as peace, security and health.

In 1994 the UN formed an organization to protect our planet from climate change. Now there are 189 nations on Earth that have signed on to this organization: United Nations Framework Convention on Climate Change. Its major goal is to lessen greenhouse gases such as CO₂ and methane in Earth's atmosphere. This organization will also inspire countries to share solutions to global warming.

On Earth Day 2016, 175 countries signed the United Nations Paris Agreement to work together to limit the rise of Earth's temperatures and slow climate change.

Countries on our planet can unite together to lessen global warming. How can kids help?

Help Cool Urban Heat Islands!

-  **Plant trees, shrubs, wildflowers** all over your neighborhood. Ask your city's mayor to do the same thing around their office buildings.
-  Write to city leaders and ask them to place **rooftop gardens** on government buildings. Next, offer classes to citizens about how to create their own rooftop gardens.
-  Learn about **cool parking lots and roads**. Write a report on the subject and send a copy to your local city council member.
-  Ask all in your classroom to join our KSE **Cool Earth Team**. Print out the certificate, commit and sign it. Put it on your wall to remind you to help stop global warming.





National Geographic

<https://www.nationalgeographic.org/encyclopedia/urban-heat-island/>

Eco Kids Nasa

https://earthobservatory.nasa.gov/eokids/pdf/EOKids_201701_UHI.pdf

Vanishing Species

[ews.nationalgeographic.com/news/2014/03/140331-global-warming-climate-change-ipcc-animals-science-environment/](https://www.nationalgeographic.com/news/2014/03/140331-global-warming-climate-change-ipcc-animals-science-environment/)

EPA: Climate Change and Heat Islands

<https://www.epa.gov/heat-islands/climate-change-and-heat-islands>

EPA: Cooling Strategies

<https://www.epa.gov/heat-islands/heat-island-cooling-strategies>

United Nations Framework Convention on Climate Change

https://en.wikipedia.org/wiki/United_Nations_Framework_Convention_on_Climate_Change

Cool Earth Team Certificate

<https://kidsforsavingearth.org/forms/CoolDowntheEarth.pdf>



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V is for

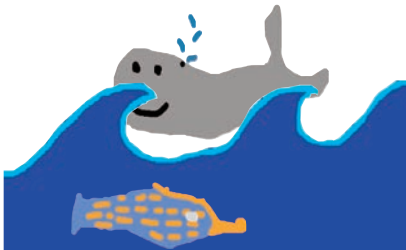
Vanishing Species



Throughout the world many species of plants and animals are struggling to survive. Meadows and forests on Earth are changing. Monarch butterflies, frogs, turtles, dolphins, whales, bats, penguins, giant mountain lobelia plants and so many other species are disappearing. Countless other animals, insects and plants are struggling to survive because the climate is becoming too warm. There are other reasons species are disappearing. They need help in many ways. Let's get started by slowing climate change.

Earth is heating up and causing climate to change. This heat comes when burning fuel for cars, trucks, factories, homes and more. It puts too much carbon dioxide (CO₂) into air. Carbon dioxide creates a greenhouse-like ceiling around Earth that has become too thick and holds in heat from the sun. Too much carbon dioxide is one of the main causes of global warming.

As Earth warms, its oceans and even beaches warm up. Nesting sea turtles, for example, have trouble adapting to the sand's heat. Melting ice from global warming in the arctic is causing oceans to rise. Polar bears hunt for food by getting into the water from floating ice. Much of this ice is melting so polar bears have problems getting to their food. The Burrowing Owl habitat is shrinking due to the warming Earth.



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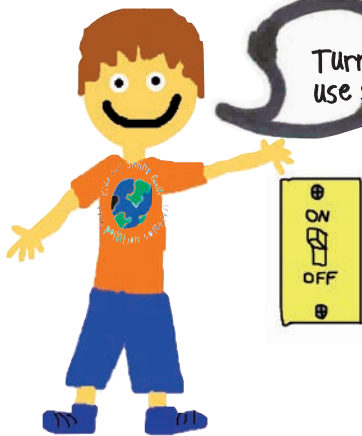
We love
volunteering.



is for Volunteers!

To help stop global warming we need many volunteers to spread the message and to do the right thing in their homes, schools and places of work.

It takes everyone to make this planet healthy! You can do it. First thing you must do is to educate yourself. You need to understand why Earth is warming. Read and re-read KSE's [Kids Campaign to Cool the Earth](#). You will be able to teach your friends and family about this issue. When you are educating someone and doing it for free, you are volunteering.



Turn off your light so you won't
use so much electrical energy.



Things you can do to help stop
plants and animals from vanishing.

1. Make signs about global warming and how you can help cool Earth. Create a parade in your neighborhood or around your school. Carry your signs. Marchers can wear [costumes](#) made out of recyclable materials like cans and paper. Recycling helps save energy. Take photos and email to [KSE](#).

2. Draw a picture of a plant or animal species that is being hurt by global warming. Below your drawing write why climate change is causing problems for this species.

[Email it](#) or mail it to KSE for us to place on our web site: KSE's [Precious Species](#) and [Creature Feature](#) pages.

Also put the picture up in your classroom

3. Help your parents change filters on your furnace and your AC. This will save energy and your parents some money.

4. With money you have saved, buy LED lights for your home. LED light bulbs use much less energy than other light bulbs.

Volunteer to
protect me from
global warming.



Biking saves
energy!





Vanishing Animals

<http://www.endangered.org/new-report-highlights-ten-american-species-our-children-may-never-see/>

Threats of Global Warming

<https://www.worldwildlife.org/threats/effects-of-climate-change>

Threats and Solutions

<https://www.nature.org/ourinitiatives/urgentissues/global-warming-climate-change/threats-solutions/index.htm>

Owls Changing Colors

<https://www.theatlantic.com/national/archive/2011/02/a-new-sign-of-global-warming-owl-colors/342154/>

The Burrowing Owl

<http://climate.audubon.org/birds/buowl/burrowing-owl>

Contact info Government Agencies and leaders for letter-writing.

<https://www.usa.gov/agencies>

Need to Know on Climate Change

https://www.edf.org/climate/why-you-need-care-about-climate-change-now?utm_source=google&utm_campaign=ggad_climate_pd_dmt&utm_medium=cpc&utm_id=1485529111&gclid=CMH2i73v29QCFVi4wAodd-QKqg

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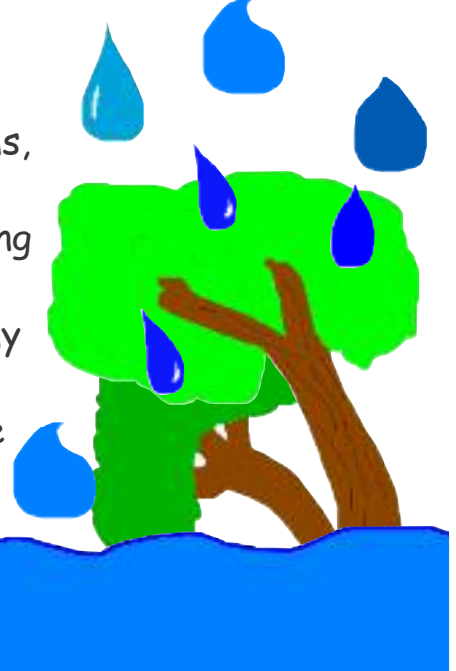
Water and Weather



The global warming topics for the letter W are weather and water. Weather is about what is happening in the atmosphere (air around Earth). Is it hot or cold, wet or dry, calm or stormy, clear or cloudy? Most weather activity occurs in the lowest level of the atmosphere called the troposphere.

Climate is the average of what is happening with weather in an area for many years (usually over 30 years). After studying weather for many years, scientists have found that Earth's climate is changing and warming. They have discovered one of the main causes of this warming is too much carbon dioxide (CO₂) in the air. This comes from burning energy when we drive cars, busses and trucks, heating or cooling homes, buildings and business and industry activities. Carbon dioxide creates a blanket around Earth trapping too much heat from the sun. Earth's climate changes because of this heat.

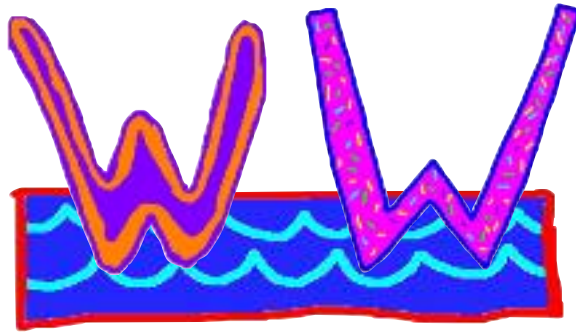
Higher temperatures are making many types of weather and water problems worse. These include storms, heat waves, floods, and droughts (no rain). Earth's surface water such as lakes, streams and rivers are filling with pollution and too much sediment from very heavy downpours of rain. Earth's surface water is home to many plants, fish and animals that can suffer as a result. In many places water is drying up. In some places there are too many bad storms creating too much water and flooding.



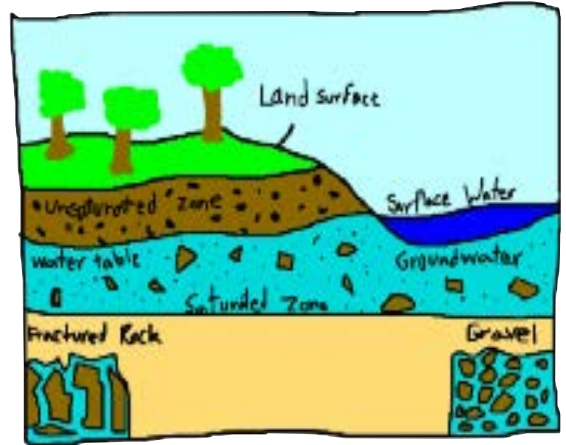
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Groundwater is water below the ground's surface, It moves underground through open spaces in gravel, sand and more. It is water we pump out of Earth to provide drinking water for 51% of people in the U.S. Groundwater quality is getting worse because of extreme weather from global warming.



How can you help?

We need to find ways to protect our surface and groundwater. To do this we must slow global warming. Check out some action steps below. Also remember all previous ideas from [Kid's Campaign to Cool the Earth](#) can be used.

Only Rain Down the Drain By KSE

Have you ever noticed that our roads have drains in them to take flowing water off the roads? These are often called storm drains. Roads are covered with oil, pesticides and trash. Global warming causes more storms so there is more of a chance these items will go down storm drains. Check out this project to limit what goes down the drain.

Tune-up the Earth By KSE

Cars and other vehicles add a lot of carbon dioxide to the air. To stop global warming we have to limit CO₂ in the air. You'll find lots you can do to help Earth in this project.

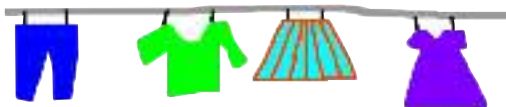


Wonderful World of Water By KSE

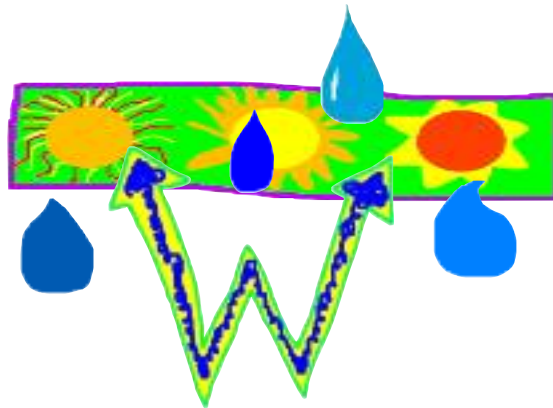
Learn about water: its wonders and its problems.

Wonderful Wind by KSE

A simple way to save energy and CO₂ is to hang your clothes out to dry. Turn off the dryer and put your own energy to work!



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What is climate? What is weather.

https://oceanservice.noaa.gov/facts/weather_climate.html

All about groundwater

<http://www.groundwater.org/get-informed/basics/whatis.html>

Weather problems from global warming

<https://www.nrdc.org/stories/are-effects-global-warming-really-bad>

How does global warming harm groundwater?

<http://blogs.mprnews.org/ground-level/2014/04/how-will-climate-change-affect-groundwater/>

Global Warming and the Water Cycle

http://oceanexplorer.noaa.gov/edu/learning/7_water_cycle/activities/global_warming.html

Extreme weather is getting worse.

<https://www.mprnews.org/story/2015/02/02/climate-change-the-proof>



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X is for X-Factor

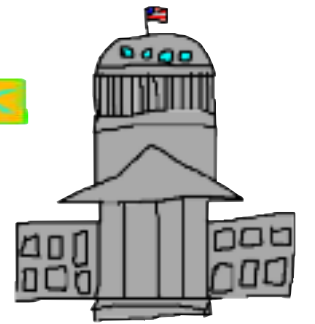
An X-Factor is a strong factor that influences and changes a certain situation in a big way. We know Earth is warming and it is a big problem. Suddenly there could be a big change in rate of warming. It could get warm faster or begin to cool a bit. An X-Factor is who or what can quickly make global warming change either way.

WHO is an X-Factor for global warming?

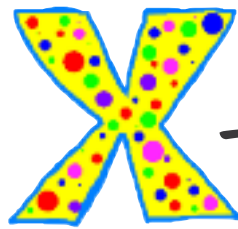
Political leaders are WHO make decisions about what to do about global warming. If the president of the United States doesn't believe in global warming that's a problem that can cause global warming to speed up.

In 2016 most world leaders from all over the world came together in Paris, France to make a pact to find ways to slow global warming. Along with President Obama, they all agreed they must join together to protect our planet from a warming climate. They signed the Paris Climate Agreement. In this agreement, world leaders agreed to limit the amount of carbon dioxide (CO₂) in our Earth's air. Sadly, the new president took the United States out of this pact and will not work to limit CO₂ in the air. This can cause Earth to warm more quickly. Any president or government leader who does not work to slow global warming is an X-factor.

Who you vote for matters. You and your family must learn about the beliefs of candidates running for local, state and national offices including the president. Find out what they think about global warming.



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-Factor



United With Friends We Will Save the Earth.

Kids and their families are X-Factors WHO can help slow climate. We know kids can influence their parents and we know kids can influence each other. Now is the time to become the big X-factor and work united to quickly slow global warming. There is so much we all can do.

Most global warming is caused by too much carbon dioxide in the air from using energy such as oil, gas and coal. We need to limit how much energy we use and find safer sources of energy such as solar and wind power.

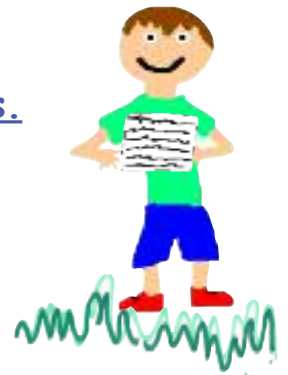
Step 1: Learn about [global warming!](#)

Step 2: Learn how your government works. [Congress for Kids.](#)

Step 3: Write, write, write letters and draw pictures about global warming to your political leaders, newspapers and TV stations. Explain to them how you feel about global warming and how it will affect you and animals of the world. Check out [KSE's Write-on and on and on](#) campaign.

Step 4: Make posters about global warming. Write "Kids for Saving Earth Power Poster" at the top and "Stop Global Warming" at the bottom. Then send them to [local, state and government leaders](#). Ask them to put it up in their office.

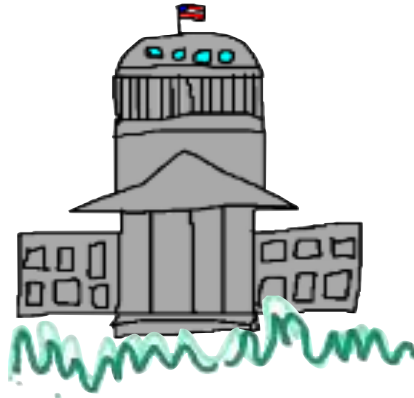
Step 5: Stop buses from idling at your school. School buses often keep engines on when dropping off and picking up kids at school. This adds CO₂ and pollution to the air. Check out the KSE project [No Idling.](#)



VOTE
For Our
Earth!



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About the EPA web site.

This is a link to the EPA website previous to January 19, 2017. The new president and the man he appointed to head the EPA are not supportive of these past views on global warming so they are changing the web site. This is a huge X-factor that will limit what instructors can learn about the science of global warming. Here is the old version: https://19january2017snapshot.epa.gov/climatechange_.html

Here is what is said on the current EPA website:

Thank you for your interest in this topic. We are currently updating our website to reflect EPA's priorities under the leadership of President Trump and Administrator Pruitt. If you're looking for an archived version of this page, you can find it on the January 19 snapshot.

National Geographic

<https://www.nationalgeographic.org/encyclopedia/global-warming/>

Global Warming has not slowed down.

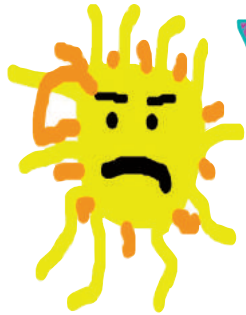
https://insideclimatenews.org/news/04062015/global-warming-great-hiatus-gets-debunkedNOAAstudy?gclid=EAIaIQobChMIqNGHzJz41QIVHLbACh258ADaEAMYASAAEgLdPPD_BwE

Amazing Charts: Global warming is not from natural causes.

<https://www.bloomberg.com/graphics/2015-whats-warming-the-world/>

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The Kids Campaign to Cool Our Earth!



Y

is for Youth

*"When you really pay attention,
everything is your teacher."*
Ezra Bayda

For our Kids Campaign to Cool Our Earth let's focus on the letter Y. Y is for youth. That means YOU! The youth of the world need to get busy paying attention to what is happening to our planet. Adults need your help.

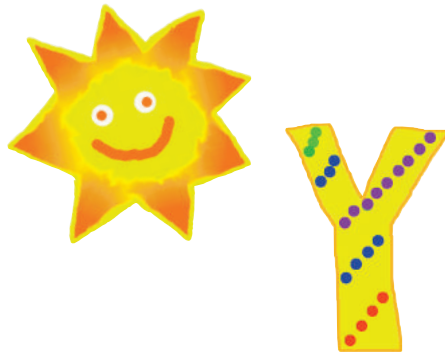
Earth's climate is changing because humans are creating more carbon dioxide (CO₂) than we need. We are burning too much oil and coal to run the engines of the world. Burning these kinds of energy (called fossil fuels) releases CO₂ which acts like a greenhouse around Earth. This is called a "greenhouse effect." It's almost like a blanket around the planet that stops heat from leaving and escaping into space. As a result too much heat surrounds Earth and warms our land, air and water. Although too much CO₂ in air is the biggest cause for climate change, there are other reasons Earth is warming. For example, cutting down and burning rainforests or any forests release CO₂ to the air. Methane is a greenhouse gas released from cattle farming, from fracking for gas, from rice farming and more.

Save The
EPA



The bad news about what is happening in the United States as of the inauguration of 2017, is that the Environmental Protection Agency's director supports oil companies and does not work to stop Earth's climate change. Oil companies don't want to believe in global warming because they will lose money. [Send emails to KSE](#) and we will send them to oil companies. Tell them there are other ways to make money like solar and wind power!

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What Can Youth Do?

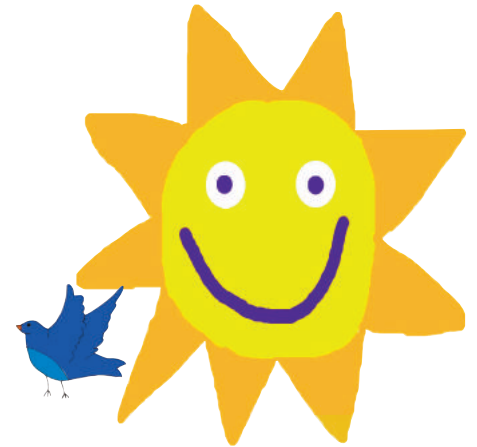


Be alert for the Earth. Most people who study weather and climate change are scientists. They are very concerned. The society of weathermen (AMS) believes the problems we are now having with global warming are caused by human activity. Some of the links on page 3 are for kids and will help you learn more about climate change. Also ask your teachers and parents for help to research this topic.

Whatever you do to work on the [Campaign to Cool our Earth](#), be sure to get the "ok" from your parents and be sure that you are safe.

Here are some ideas for slowing global warming!

1. Have a [green birthday party](#) that will use less energy. Be sure to walk or bike for transportation whenever you can. Suggest friends walk or bike to your party.
2. Set up a carpool whenever several are going to the same place, like to school or a party.
3. [Plant hundreds of trees and protect the rain-forests.](#)
4. Make power posters asking for help to stop global warming and organize a positive protest at your school. ([see SOP pg. 2](#))
5. [Click here](#) for fun other activities kids can do to slow global warming.





Nasa and Global Climate Change

<https://climate.nasa.gov/causes/>

Nasa and Global Warming for Kids

<https://climatekids.nasa.gov/climate-change-meaning/>

Wiki How

[http://www.wikihow.com/Help-Reduce-Global-Warming-\(Kids\)](http://www.wikihow.com/Help-Reduce-Global-Warming-(Kids))

American Meteorological Society.

<https://www.ametsoc.org/ams/index.cfm/about-ams/ams-statements/statements-of-the-ams-in-force/climate-change/>

eSchool Facts and Tips about Global warming.

<http://www.eschooltoday.com/climate-change/what-can-i-do-about-climate-change.html>

Center for Climate and Energy Solutions

<https://www.c2es.org/science-impacts/basics/kids>

Main Sources of Methane

<https://whatsyourimpact.org/greenhouse-gases/methane-emissions>

EPA Director ordered by Trump to dismiss 40% of it's main science branch.

<https://www.nytimes.com/2017/05/07/us/politics/epa-dismisses-members-of-major-scientific-review-board.html?mcubz=0>

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The Kids Campaign to

Cool Our Earth!

Z is for Zero time left.



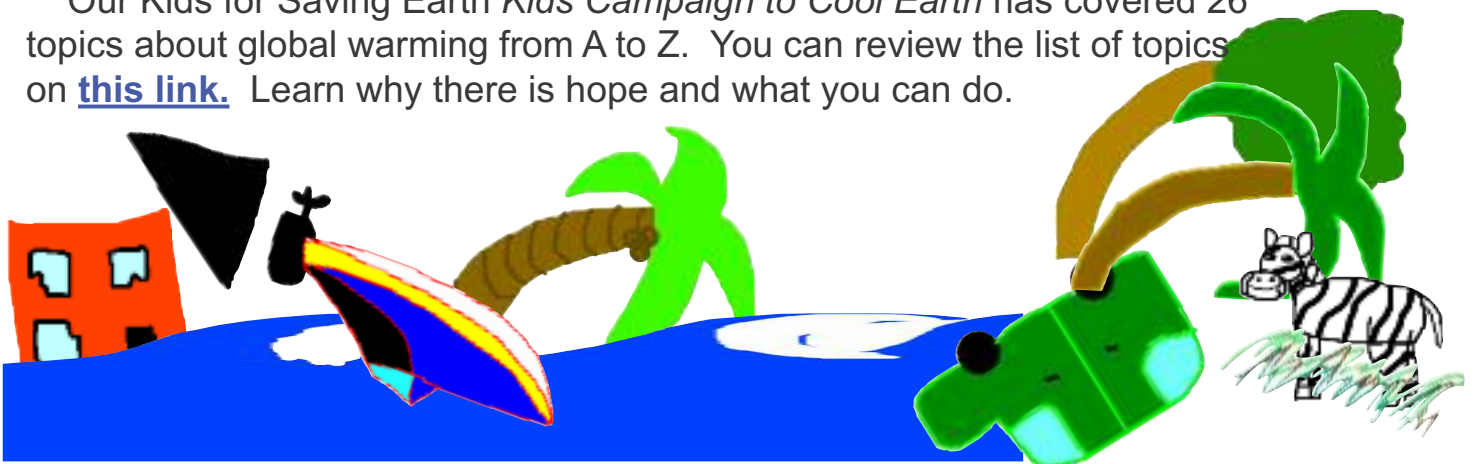
zzzz
We're sleeping
on the Earth-
saving job.

We've always had bad weather like heavy snowstorms, hurricanes and tornados. We've always had times when we get too much or too little rain. We've always had times when there has been too much wind. But now, as a result of global warming, this kind of weather is worse and right now is happening more often. So there is zero time left. Global warming is here and is harming Earth but there is hope.

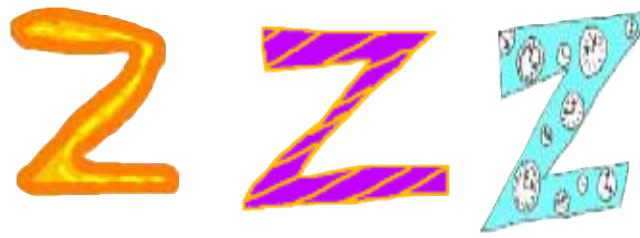
We are putting too much carbon dioxide (CO₂) in Earth's atmosphere (air surrounding Earth). This CO₂ comes from humans burning fuels such as gas and coal. We need some CO₂ in our planet's atmosphere, otherwise, it would get too cold. It acts like a blanket, but now that blanket is too thick and it is keeping our climate on Earth too warm.

We all see major climate problems occurring. Here are a few: More very strong hurricanes like in Texas, Florida, and Puerto Rico; glaciers have shrunk, ice on rivers and lakes is breaking up earlier; trees are flowering sooner; plant and animal ranges have shifted. Even Zebras' migrations are changing. More wildfires are happening and droughts (no rain) are more common. Very heavy rain storms occur more often and last longer. Also the sea level is rising.

Our Kids for Saving Earth *Kids Campaign to Cool Earth* has covered 26 topics about global warming from A to Z. You can review the list of topics on [this link](#). Learn why there is hope and what you can do.



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Another great Z word is **ZEAL**! That's what it will take to slow global warming that is already here. It's you kids who need to get excited about what you can do to help our planet. It's you kids who will encourage adults to help. It's you kids who need to write to government leaders and ask them to help you protect Earth from global warming. So let's get busy because YOU can make the difference.

Z Convince more people to take our [Kids for Saving Earth Promise](#).

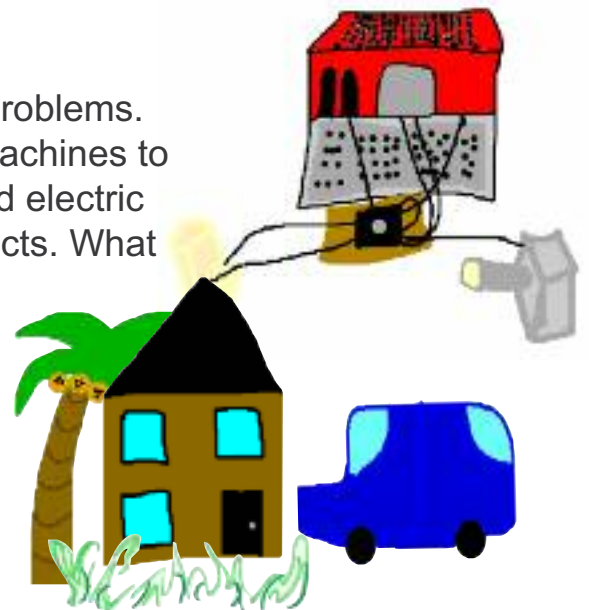
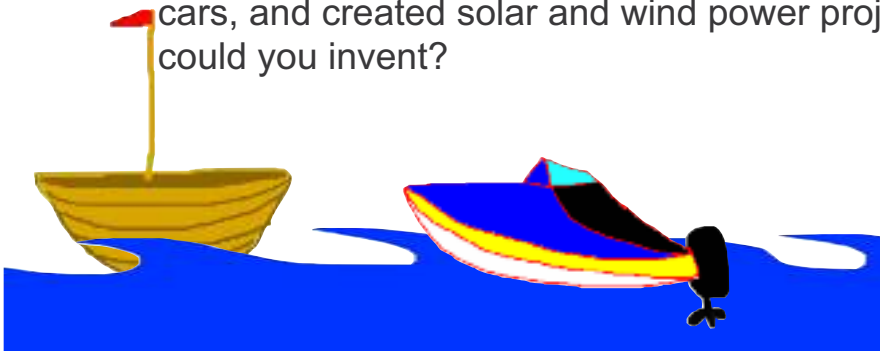
Z Have an [Earth Expo in Your School](#). You'll need your teacher and principals help on this. Maybe you could set up several KSE Information Stations in classrooms to cover some of the A to Z topics.

Z Have a [Green Day](#) at your school or home.

Z Check out NASA's [How Can I Help?](#)

Z Don't use throw-away plastic [Water bottles!](#)

Z Become a scientist to solve global warming problems. Some concerned scientists are working on machines to take CO₂ out of the air. Others have designed electric cars, and created solar and wind power projects. What could you invent?



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Global Warming Study

https://www.washingtonpost.com/news/energy-environment/wp/2017/07/31/we-only-have-a-5-percent-chance-of-avoiding-dangerous-global-warming-a-study-finds/?utm_term=.6b67583e8e48

Time is Running Out

<http://www.telegraph.co.uk/news/earth/environment/climatechange/11203771/UN-climate-change-report-time-running-out-to-prevent-dangerous-irreversible-impacts-of-global-warming.html>

How can I help?

<https://climatekids.nasa.gov/how-to-help/>

There's No Time Left

https://m.huffpost.com/us/entry/us_57f2dde3e4b01b16aafe9c22/amp

Global Warming Timeline

<https://history.aip.org/climate/timeline.htm>

Vital signs that Climate Change is here.

<https://climate.nasa.gov/effects/>

Will you take the challenge?

<https://mail.google.com/mail/u/0/#inbox/15f2302da54c0849?compose=15f041ecaaca7f7f%2C15f097fc75358c9b>

Zebras migrate by sensing the weather.

<https://climate.nasa.gov/news/963/of-stars-and-stripes-nasa-satellites-used-to-predict-zebra-migrations/>