

Grade 6 English Language Arts  
Week of November 23 – November 27

**Lesson 2: Problems and Solutions**

**10 Things You Can Do to Help the Earth**

This lesson features text that helps us to answer: **How can we care for the environment?**

1. Before reading "**10 Things You Can Do to Help the Earth**", take a look at the **Table of Contents**.

## Table of Contents

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Based on the table of contents, what do you think some of the ideas will be?

2. Next, look at the text features pictured below. Titles, subtitles, various letters (bold, colours), and images help your mind to organize and understand the text.

**PROBLEM #1**

# A CHANGING CLIMATE

**KIDS DISCOVER**

It is normal for the earth's atmosphere to slowly heat up or cool down over time. However, in the last 100 years or so, air pollution has added gases like carbon dioxide to the atmosphere in much bigger quantities than in the past.

This air pollution causes the atmosphere to trap more heat, causing average temperatures in many parts of the world to rise more quickly than they would naturally. Some scientists believe that changing weather patterns, including bigger storm systems and large areas of drought, may be related to climate change.

Severe weather and rising temperatures are causing serious problems for people around the globe. Plants and animals are also struggling to adapt.

## How You Can Help

### TURN OFF THE LIGHTS

This one is easy! When you leave a room, reach out and switch off the light. Also, don't forget to turn off electronic devices, like computers and televisions, when you are not using them.

**WHY IT HELPS**

About one-third of greenhouse gases (gases that cause the Earth's atmosphere to trap more heat) released in the United States come from generating electricity. This is because most electricity is generated by burning fuels like coal and natural gas. The less electricity we use, the less pollution is created.

### WALK OR RIDE YOUR BIKE

Whenever possible, walk or ride your bike instead of riding in a car. If your family needs to visit several places that are close together, ask them to park in a central location and walk to each stop.

**WHY IT HELPS**

Personal and commercial vehicles create about one-quarter of the greenhouse gases the United States generates every year. The less we drive, the cleaner our atmosphere will be.

**Title**

**Subtitle**

**Bold Lettering**

**Images**

Now you will use the article, "10 Things You Can Do to Help the Earth," to complete the following.

3. First, scan the article. Just look at the titles and subtitles. Think about which areas you are familiar with.

4. There are various non-fiction text structures - cause and effect, sequential (in order), compare and contrast, and problem and solution are a few you will learn about. Which do you think this text will be? You can see "Problem #1" in the top left corner of the image above. That should give you a hint. Other ways to tell:

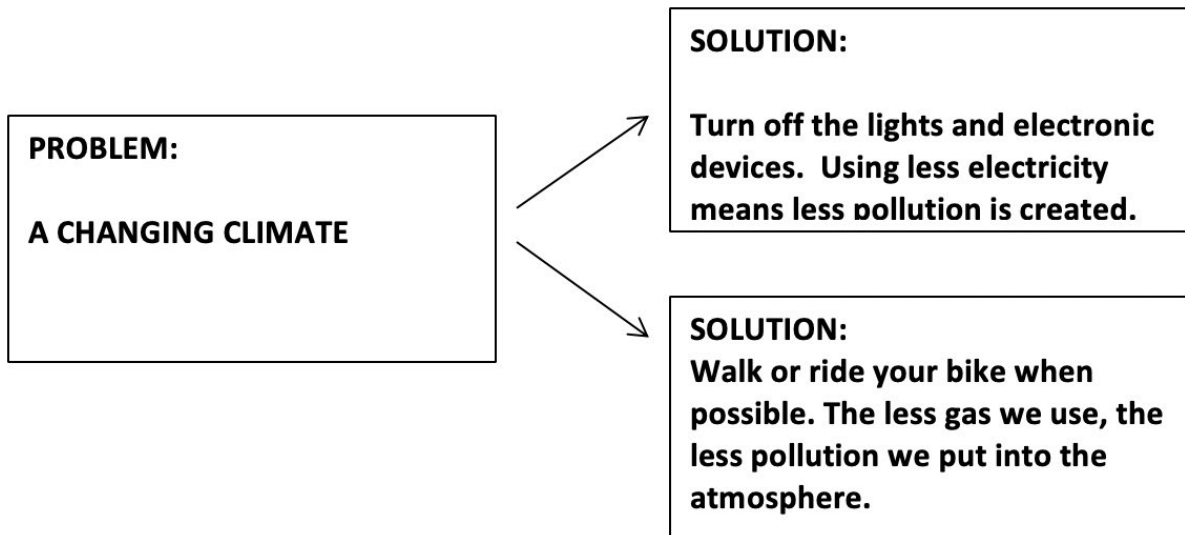
**Signal Words**

problem, issue, since, as a result, solution, idea, so, leads to, causes, purpose, conclude, in conclusion, research shows, the evidence is, one reason is, issues are, propose, conclude, resolved by

**Tips**

Ask yourself: what is the problem and what is the solution? Look for the problem first and then the solution.

The *problems and solutions graphic organizer* (below) can be used to outline problems and solutions.



5. Next, as you read the entire article, think about what actions you are already doing and which you could add to your routines to increase your social responsibility. Zoom in to fill in the problem and solution graphic organizers in the following Learning Guide activity.



# 10 THINGS KIDS CAN DO TO HELP THE EARTH



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*You may have heard that the Earth has some problems. Television news, newspapers, and even science classes are full of talk about scary-sounding things like climate change, superstorms, droughts, endangered species, and wildfires. People have different opinions about how bad these problems are and what we should do about them.*

*“I’m just one kid,” you may think,  
“so there is nothing I can do anyway.”*

**HOWEVER,  
IF WE ALL DO  
A LITTLE TO HELP,  
WE CAN MAKE  
A DIFFERENCE.**



HERE ARE FIVE CHALLENGES FACING OUR PLANET  
AND TEN THINGS YOU CAN DO TO HELP.

# A CHANGING CLIMATE



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**Personal and commercial vehicles** create about one-quarter of the greenhouse gases the United States generates every year. The less we drive, the cleaner our atmosphere will be.

# INCREASING DEMAND FOR NATURAL RESOURCES



A natural resource is something from nature, like wood, coal, or oil, which we use to make stuff or generate power. The more Earth's population grows, the more natural resources we use.

Some of these resources, like the wind, are renewable. The wind continues to blow even if we use it to turn turbines to generate electricity.

Most natural resources are nonrenewable, which means that when we use them up, they are gone. If we keep using up resources at the rate we are now, they will not last as long.

## How You Can Help



### HAVE A TOY SWAP

Gather up the books, toys, and games in your room that you no longer use. (Don't include things that are broken or worn out.) Have your friends do the same.

Find a place to meet, either in someone's home or in a room at a library, school, or community center. Bring all the unwanted items and display them on tables. Invite younger friends and family members to come and choose something from your "store."

You and your friends might find something good, too! If you have items left over, donate them to a local charity.

### WHY IT HELPS

**When you share something** you've outgrown with another person, you are helping our limited supply of natural resources last longer.



### USE YOUR LOCAL LIBRARY

Instead of rushing to the bookstore when the next installment of your favorite series hits the shelves, check it out from your local library.

### WHY IT HELPS

**Paper comes from trees.** Borrowing a book from a library instead of buying it means fewer trees are cut down.



# PLANTS AND ANIMALS ARE LOSING HABITAT



Habitat is the name for places where animals (and people) live. To make room for the Earth's growing population, we are continually expanding our cities, farms, and industries.

Though some animals have adapted to life in populated areas, most need wild places to survive. As we push our human habitat further and further into these places, we destroy the homes of plants and animals.

## How You Can Help



### INVITE BIRDS TO YOUR BACKYARD

Birds, like all animals, need four things to survive: food, water, shelter, and places to raise their young. You can provide these things in your backyard, or even on your apartment balcony. Here are some easy projects (but be sure to get an adult's permission):

- *Plant flowers.* Make sure they provide nectar; some flowers don't.
- *Let some of your flowers "go to seed."* This means leaving the seed heads on until the following spring, instead of removing them.
- *Set up a bird feeder.*
- *Build and hang a birdhouse.*
- *Set up a birdbath.* It doesn't have to be fancy. You can even use a trash can lid. Just remember to change the water every other day.
- *Use the sticks pruned from the trees and shrubs in your yard to build a brush pile.*

#### WHY IT HELPS

**Flowers with nectar and seed heads** provide food for animals. Birdhouses give cavity-nesting birds a place to raise their young. Birdbaths provide water. Brush piles provide homes for creatures like insects, spiders, snakes, and frogs. Each of these projects helps creatures living in your yard year-round, as well as insects and birds passing through during migration.



### VOLUNTEER TO CARE FOR HABITAT IN YOUR AREA

Volunteers across the country work to restore habitat in their communities. Many of them invite kids to participate, though you may need an adult to come with you.

Contact local nature centers or environmental education organizations to see how you can help.

#### WHY IT HELPS

**Volunteer projects** include picking up trash, controlling invasive species, restoring riverbanks, and a whole lot more. All these activities improve habitat for wildlife and people.

# TOO MUCH TRASH!



We love new stuff—shoes, computers, video games, and more! Businesses wrap all that new stuff in fancy packaging to make it look more appealing. All this packaging, along with old, broken stuff, ends up in the trashcan.

Not only is our junk filling landfills, much of it ends up in the oceans. This trash is killing marine animals and birds.

## How You Can Help



### USE A REUSABLE WATER BOTTLE

With your own money or with help from a grownup, buy a water bottle you can use again and again. Encourage your friends and family members to do the same.

#### WHY IT HELPS

**Every day in the United States**, approximately 50 million bottles are thrown away. Though plastic can be recycled, the majority of water bottles end up in landfills. If we all switched to reusable bottles, we could eliminate mountains of trash!



### BUILD A WORM BIN

Gather up your family's daily food waste—things like banana peels, apple cores, and pizza crusts—and feed them to the worms! Worm bins can easily be constructed from plastic tubs or wood.

In a worm bin, worms and other creatures recycle food and yard waste into fertile soil-like compost. For more about building worm bins, see “Books and Websites” at the end of this article.

#### WHY IT HELPS

**If you let worms and other critters** devour your food waste instead of throwing it away, you will save space in your trashcan and your local landfill. Plus, you can take the compost the worms make and use it to grow plants.

# NOT ENOUGH FRESH WATER



Less than one percent of the water on Earth is fresh and liquid. Many regions around the world, even in North America, are struggling with serious water shortages. The water available in rivers and aquifers (underground water sources) is not enough to supply the needs of growing cities.

Even where rainfall is plentiful, many communities get their water from aquifers. These natural underground storage tanks are being emptied faster than they can refill.

## How You Can Help



### FINISH THE WATER IN YOUR CUP

When you fill your glass with water, take only the amount you think you'll drink. If you pour too much, save it for later instead of dumping it down the drain.

#### WHY IT HELPS

Water that ends up inside you is good for your body; water that ends up down the drain is just wasted.



### BUY YOUR JEANS AT A RESALE SHOP

Next time you need a pair of jeans, ask your parents to take you to a resale shop.

#### WHY IT HELPS

It takes an estimated 1,500 gallons of water to make a pair of jeans! Buy a used pair and you save enough water to provide eight people with drinking water for a year.



# ONE MORE THING YOU CAN DO!

*There is one more thing you can do to help the Earth.*  
It doesn't save water or help with climate change or any of those other things, but it's still really important.

## GET TO KNOW THE EARTH



*Try to get outside regularly.*  
If you have a backyard, find a special place where you can sit and listen to the wind and the birds. Dig in the dirt. Turn over rocks. Look for cool creatures. If you live in an apartment, sit on the balcony or visit a local park. Take a walk or a bike ride in your neighborhood. If you can, hike a local trail.

### WHY IT HELPS

Imagine you saw a news story about a beautiful, old tree across town that was going to be cut down. You might feel a little sad, but you probably wouldn't pay too much attention. Now imagine that tree was in your yard and you had grown up climbing in its branches. Your feelings about that tree would probably be much stronger. If we spend time in nature, we will know and understand it better. The natural world will matter to us, and we will be more likely to try to protect it.

# HOW A BOTTLE IS RECYCLED

GOOD JOB! You tossed that plastic bottle into the recycling bin rather than straight into the trash. But do you know what will happen to that bottle now?



## COLLECTION

- 1 Bottles and other recyclable materials are picked up from homes, schools, and businesses and taken to a recycling facility.

## NEXT APPLICATIONS

- 5 The flakes can be spun into a very fine, threadlike material in a process similar to how cotton candy is made. Companies use those "threads" to make a wide variety of items, including carpets, clothing, or filling for jackets and quilts. Depending on the type of plastic, they can also be made into new (well, sort of new!) plastic bottles.

## SORTING

- 2 Bottles and containers are sorted based on what they're made of and sometimes what color they are. The items then go through a machine that shreds them.

**4.43**  
pounds

Amount of trash the average person produces in a single day



**34.1%**

Percentage of trash that's recycled



## FLAKING

- 4 The melted plastic is processed into flakes, which can be made into a wide variety of plastic products.

## MELTING

- 3 The shreds are washed to remove any impurities, pieces of labels or leftover contents. They are then dried and melted.

WANT TO KNOW MORE ABOUT CLIMATE CHANGE, RECYCLING, BACKYARD WILDLIFE HABITATS, WORM BINS, AND KIDS MAKING A DIFFERENCE?

HERE ARE SOME HELPFUL WEBSITES AND BOOKS.

## A Student's Guide to Global Climate Change

*U.S. Environmental Protection Agency*

<http://www.epa.gov/climatechange/kids/index.html>

## Reduce, Reuse, Recycle

*National Institute of Environmental Health Sciences: Kids' Pages*

<http://kids.niehs.nih.gov/explore/reduce/index.htm>

## Make It!

*By Jane Bull*

*(DK Publishing, 2011)*

## Kids in the Wild Garden

*By Elizabeth McCorquodale*

*(Black Dog Publishing, 2011)*

## Worms Eat My Garbage

*By Mary Appelhof*

*(Flower Press, 2006)*

## Generation Fix: Young Ideas for a Better World

*By Elizabeth Rusch*

*(Beyond Words Publishing, 2002)*

FOR MORE FREE RESOURCES, VISIT US AT

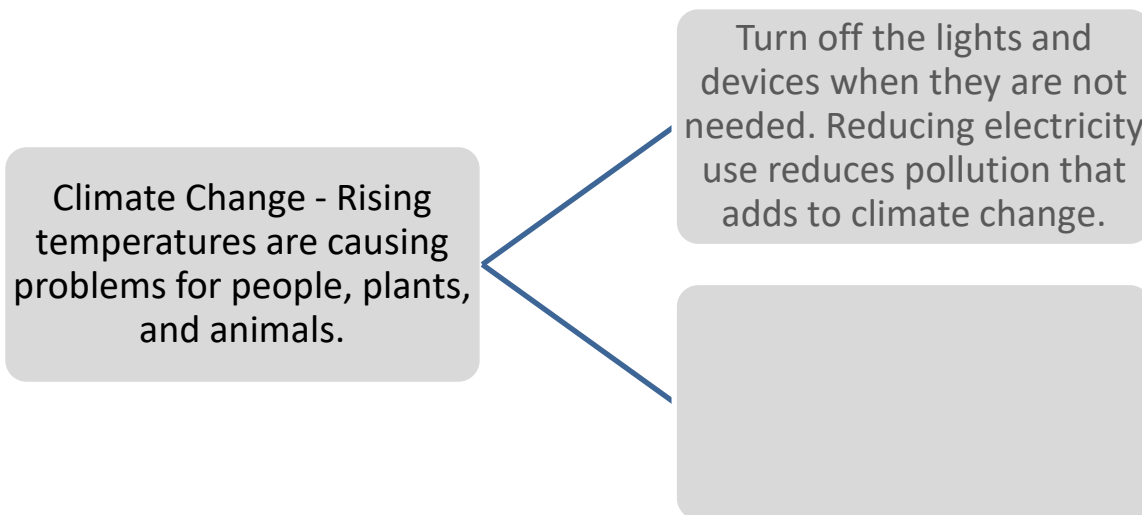
[WWW.KIDSDISCOVER.COM](http://WWW.KIDSDISCOVER.COM)

## 3.1C Problem and Solution – 10 Things You Can Do to Help the Earth

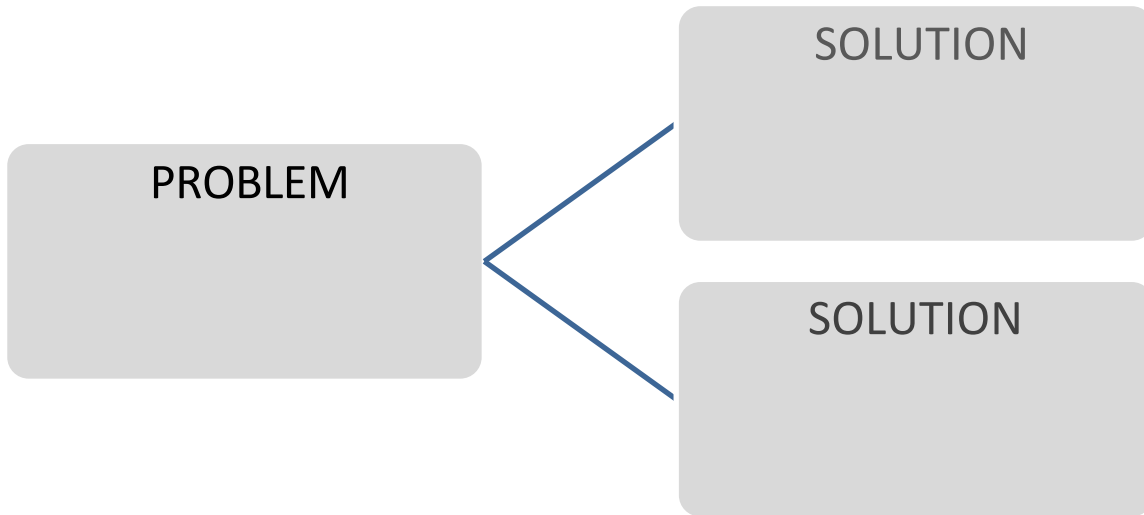
### **Problems and Solutions**

Directions: As you read the article, choose any three of the problems and complete the *problems and solutions graphics* (below). The first one is started for you as an example. Notice how “big ideas” are summarized in a sentence or two in “my own words”. (As you enter text, it will resize the letters to fit.)

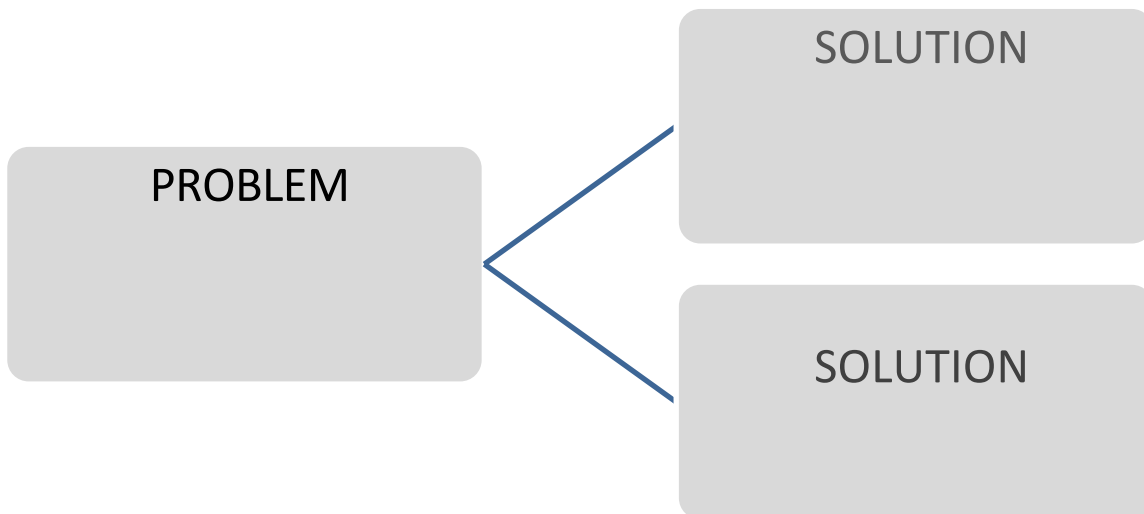
#### **PROBLEM #1**



**PROBLEM #2**



**PROBLEM #3**





# Reflection

Directions: This lesson featured text that helps us to answer: **How can we care for the environment?** Answer the questions in complete sentences. As always, after you've written your response, check it over to make sure it makes sense and is in complete sentences with your best capitals, usage (grammar), punctuation, and spelling.

1. What actions you are already doing to help the Earth?

2. Which ideas from the article could you could add to your routines to increase your social responsibility