

# Climate Change Awareness and Action



## Student Journal

Name: \_\_\_\_\_

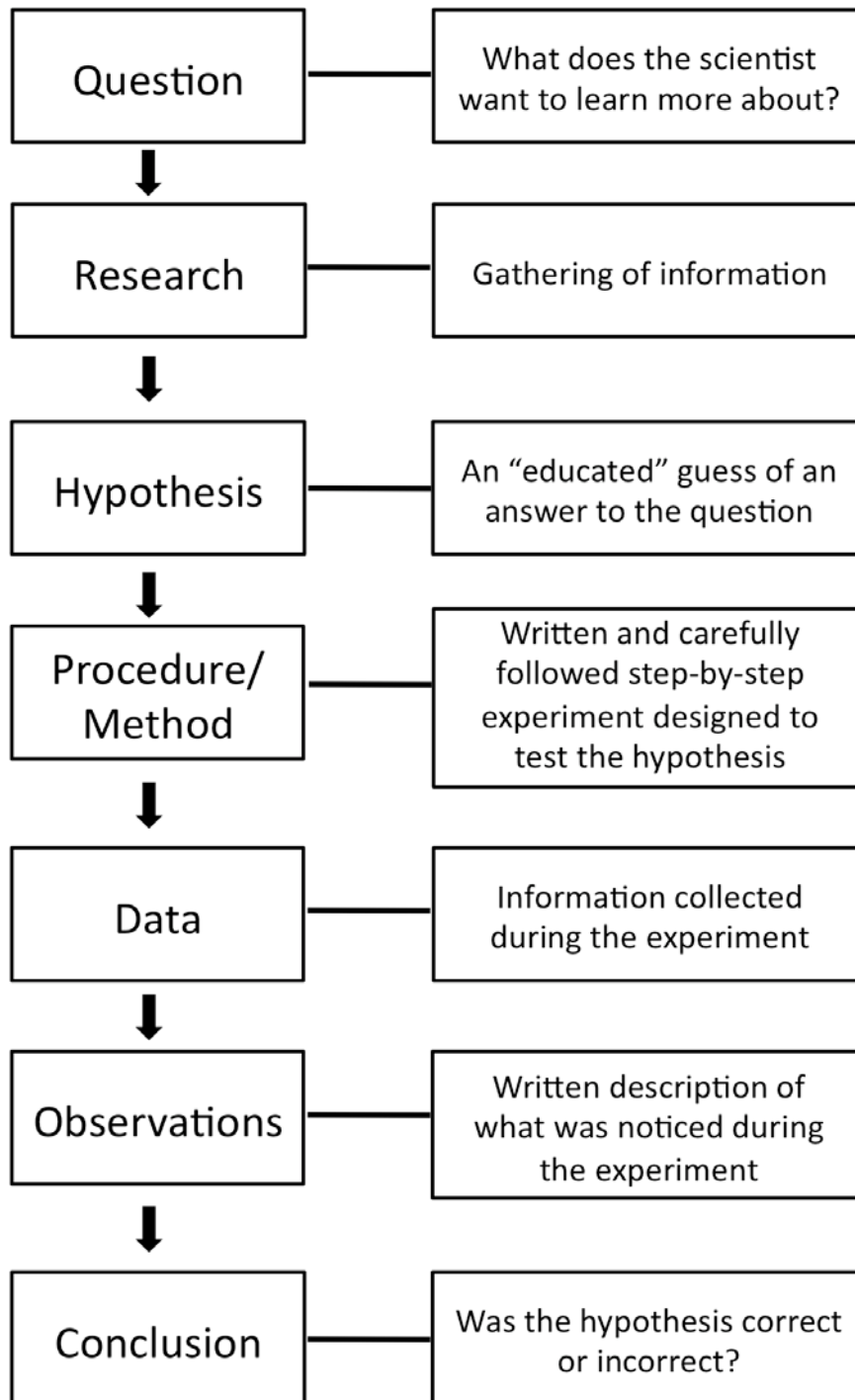
# Climate Change Awareness and Action

A curriculum for 5<sup>th</sup> and 6<sup>th</sup> graders

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## Lesson 1: Scientific Method Review



## Paper Towel Experiment

**Directions:** As we go through each of the 7 steps in the Scientific Method, record either what was done or what happened in the appropriate section.

### 1. Question:

*Which one of these two paper towels will absorb more water?*

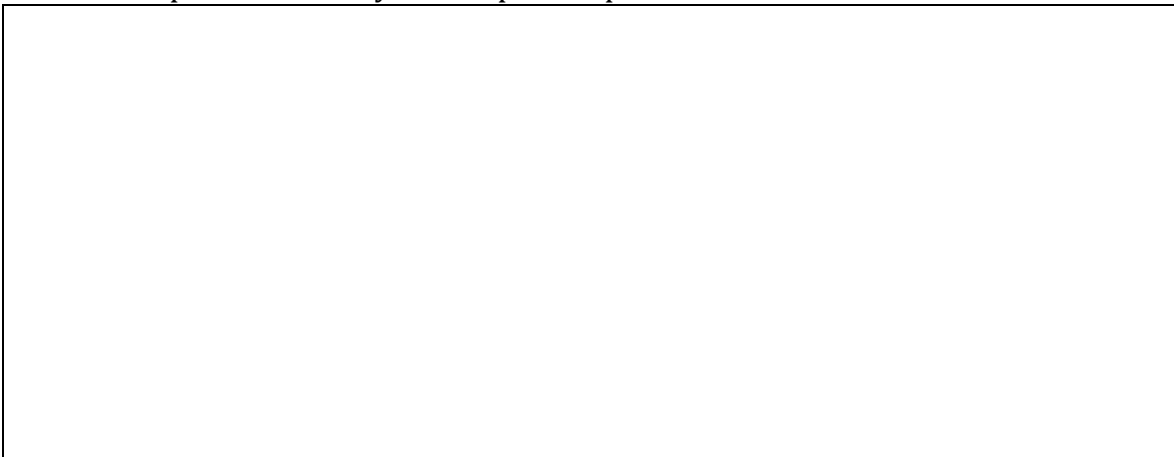
### 2. Research: Do you notice any differences? Are there any variables we need to control?

### 3. Hypothesis: Based on your observations, what do you think will happen?

### 4. Procedure/Method:

1. Pour  $\frac{1}{4}$  cup of water into the clear cup.
2. Place 1 drop of food coloring in the water and then swirl to mix. (The food coloring is simply to make it easier for us to see how high the water is absorbed).
3. Select a paper towel strip and place it in the cup (just the bottom of the strip should touch the bottom of the cup).
4. Watch as the paper towel absorbs water.
5. When the water stops rising, remove your paper towel.
6. Use a ruler to measure the height of the water absorbed in centimeters and record the answer in the data section below.
7. Repeat steps 1-6 for the other paper towel.

5. Draw a picture of how you set up the experiment.

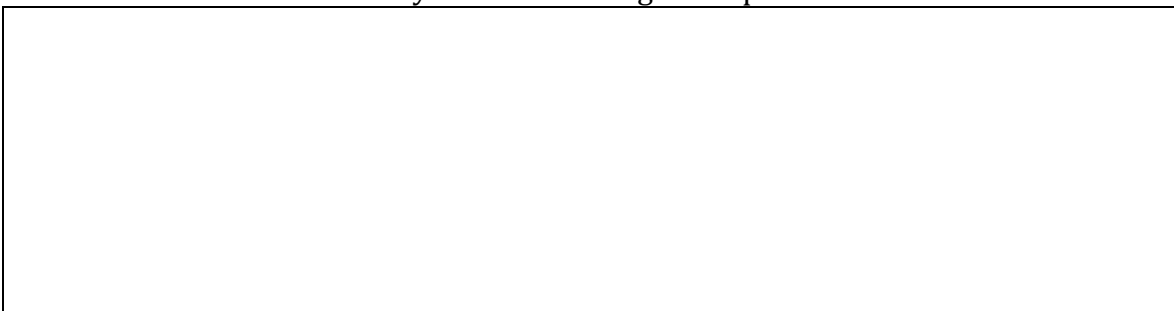


6. **Data:**

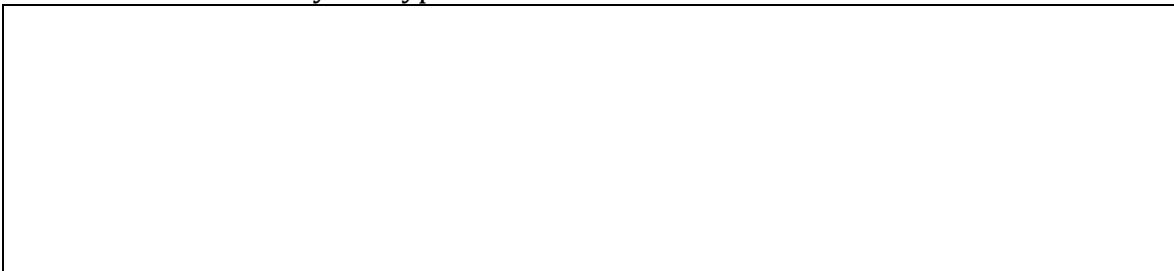
How high did the water go up the SCHOOL paper towel strip? \_\_\_\_\_ cm

How high did the water go up the OTHER paper towel strip? \_\_\_\_\_ cm

7. **Observations:** What did you notice during the experiment?



8. **Conclusion:** Was your hypothesis correct or incorrect?



9. What other questions could we use the scientific method to answer? Develop at least **three** questions with your neighbor that you want to know more about.

**Climate Change Questions:** These are the questions we are going to answer during our unit on climate change.

1. How is my life affected by climate and weather?
  
2. What are some possible changes that might occur in the natural world and climate by the time I grow up?
  
3. How do my daily choices influence future changes in the climate 5, 15, 50, 100 years from today?

## Lesson 2: Good Morning Planet Skosh!

**Directions:** You have recently moved to Gravityville on Skosh, a planet very similar to Earth that in the last few years has begun to develop permanent settlements for anyone who wishes to move there. Due to the recent increase in population, you have been hired by the Skosh Weather Center to work at their new data collection site in Gravityville. It is your job along with the other members of your team (your small groups) to collect and record weather data each day. Your team is also responsible for forecasting the weather and sharing that with the residents of Gravityville each morning.

Weather Data for \_\_\_\_\_ (write date from data sheet)

**Temperature** \_\_\_\_\_ °F

**Wind speed** \_\_\_\_\_ mph

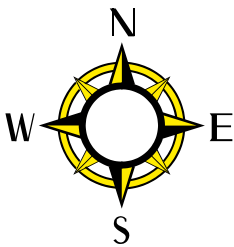
**Humidity** \_\_\_\_\_ %

**What does it feel like?**

**Wind chill** \_\_\_\_\_ °F (Air < 40°F)

**Heat index** \_\_\_\_\_ °F (Air > 70°F)

**Wind** is coming from the \_\_\_\_\_. Make sure you circle the direction on the compass



West = Dry

Northwest & North = Cold & Clear

Northeast = Cool & Cloudy, snow or rain

East & Southeast = Cloudy & Rain

South & Southwest = Dry & Warmer

**Barometric pressure** \_\_\_\_\_ in. Hg

Circle one of the arrows



**Current conditions** (copy this from your data sheet)

## Today's Forecast

Using pages 2, 3, and 4 of the Forecast Handbook and the data you collected on the previous page forecast today's weather.

What is the weather like right now in Gravityville?

What is the weather going to be later today in Gravityville?

Sample Forecast (you can use this format for your own forecast)

**Today's Weather Forecast**

**Hi, everybody! This is** (your name) \_\_\_\_\_ **your Gravityville weather forecaster.**

**Another** \_\_\_\_\_ **day is forecasted tomorrow in Gravityville. It's currently** \_\_\_\_\_ °F **with**

**\_\_\_\_\_ m.p.h. winds out of the** \_\_\_\_\_. **You can expect a high temperature in the afternoon**

**of** \_\_\_\_\_ °F. **The sky will be** (cloudy or clear?) \_\_\_\_\_ **with a** \_\_\_\_\_ % **chance of precipitation.**

## Compare Your Forecast

What was today's weather? (You're teacher will give you information on what the weather was actually like)

How did your forecast compare to today's actual weather?

Is today's weather "normal" for this time of year? (Compare today's weather to the climate data provided by your teacher)

## Lesson 3: Carbon's Journey

**Directions:** You are a carbon atom moving through the carbon cycle. In this game, a roll of the die determines where you will go. As you move through the carbon cycle make sure to record where you go and how you got there in the table below. Write down the station you are beginning at as Start. When the game begins, roll the die and using the information on the station sign determine where you go next and write that down as #1 and then head to the next station. Continue this from station to station. If you stay at your station, write down stay, go to the end of the line, and take another turn. Keep doing this until the game is over. Depending on time you may or may not fill up the entire table.

Turn	Station	Key Word(s)
<i>Example</i>	<i>soil and sediment</i>	<i>decaying animal</i>
Start		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Journey Questions: Answer the questions based on discussions with a partner.

Did you get stuck anywhere?

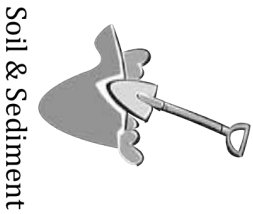
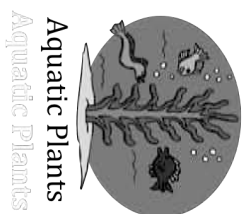
What was similar about your journeys?

What was different about your journeys?

How did you get into the atmosphere?

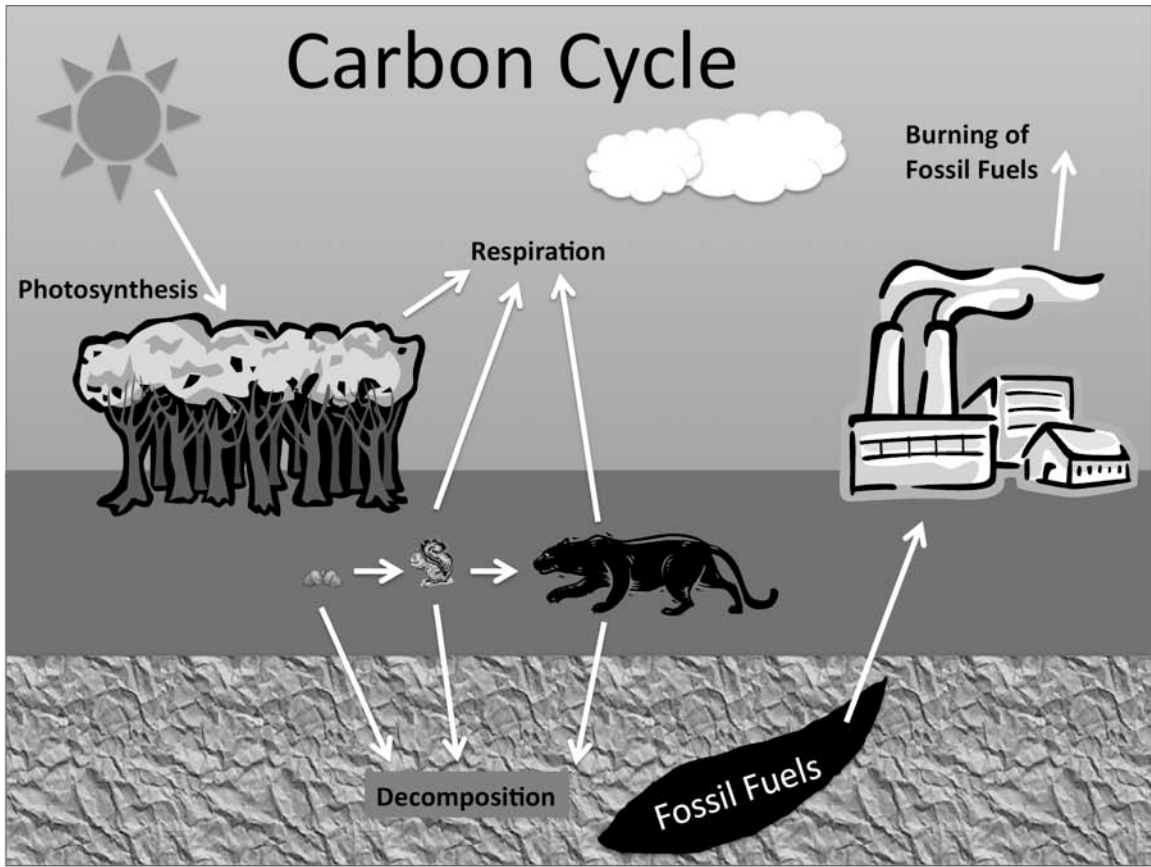
Did you notice any trends?

**Directions** – Draw arrows from picture to picture to represent the journey you took as a carbon atom starting with #1. Indicate “Stay”ing by circling the picture.



\_\_\_\_\_’s Carbon Journey

# Carbon Cycle



How does this carbon cycle diagram compare to your own journey?

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## Lesson 4: The Greenhouse Effect

### Part 1: The Greenhouse Experiment

#### Materials

2 two-liter clear plastic soda bottles with 1.5 cups of soil  
2 thermometers  
Ruler  
Lamp with 100-watt light bulb  
1 piece plastic wrap (6"x6")  
1 rubber band  
Masking tape  
Student journal  
Pencil

After your group has collected all the materials that it needs to complete the experiment, begin setting up the experiment as demonstrated by your teacher.

1. Tape a thermometer to the inside of each bottle exactly 2 inches above the top of the soil. Make sure you tape it in a spot where you can read the thermometer through the plastic. Also tape a piece of paper over the thermometer bulb to protect it from direct rays of light.
2. Decide which bottle is your **experimental** bottle and using the rubber band and plastic wrap, tightly cover the opening making sure no air can get out.
3. Now arrange the bottles and lamp by placing a bottle on either side of the lamp, making sure the thermometers face away from the lamp (so you can easily read them).
4. Using the ruler place both bottles  $\frac{1}{2}$  inch from the base of the lamp. Do not turn on the lamp until your teacher tells you to turn it on.
5. Within your group pair up and decide which bottle you and your partner are going to be recording the temperature for. Record the current temperature (without the lamp on) as Minute 0. If the temperatures are different, you must add the difference to the reading of the thermometer with the lower temperature. Make sure you record this in your journal so you remember to add the difference every time you read that bottle's temperature.
6. Before you can start collecting data you need to complete Steps 1-3 in your journal.
7. When the teachers says "Go" turn on your lamp.
8. Every time the teacher calls out "Temperature" you and your partner will decide what the temperature is and record it in the table in your journal.

**Step 1: Question**

What are we trying to figure out or prove? What do we want to learn more about?

*How does the greenhouse effect work?*

**Step 2: Hypothesis**

What do you think is going to happen in the experiment? Write an educated guess or prediction.

[Empty box for hypothesis]

**Step 3: Experiment**

Draw a picture in the space bellows of the how the experiment is set up.

[Empty box for drawing the experiment setup]

#### Step 4: Data, Observation and Results

Record the temperature every minute for 15 minutes

	Temperature	
Minute	Bottle 1 Control	Bottle 2 Experimental
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

**Was there a difference in the starting temperatures of the two bottles? If so what was the difference and which bottle will you add this to?**

**Observations** – What did you notice? Did anything happen in the bottles during the experiment?

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**Data from Other Groups:**

	Final Temperature	
Group	Bottle 1 Control	Bottle 2 Experimental
1		
2		
3		
4		
5		
6		
7		
8		

**Using the class data calculate the following:**

**Mean**

Bottle 1 \_\_\_\_\_

Bottle 2 \_\_\_\_\_

**Median**

Bottle 1 \_\_\_\_\_

Bottle 2 \_\_\_\_\_

**Range**

Bottle 1 \_\_\_\_\_

Bottle 2 \_\_\_\_\_

**Results** - Write one sentence to describe what you now know because of this experiment.

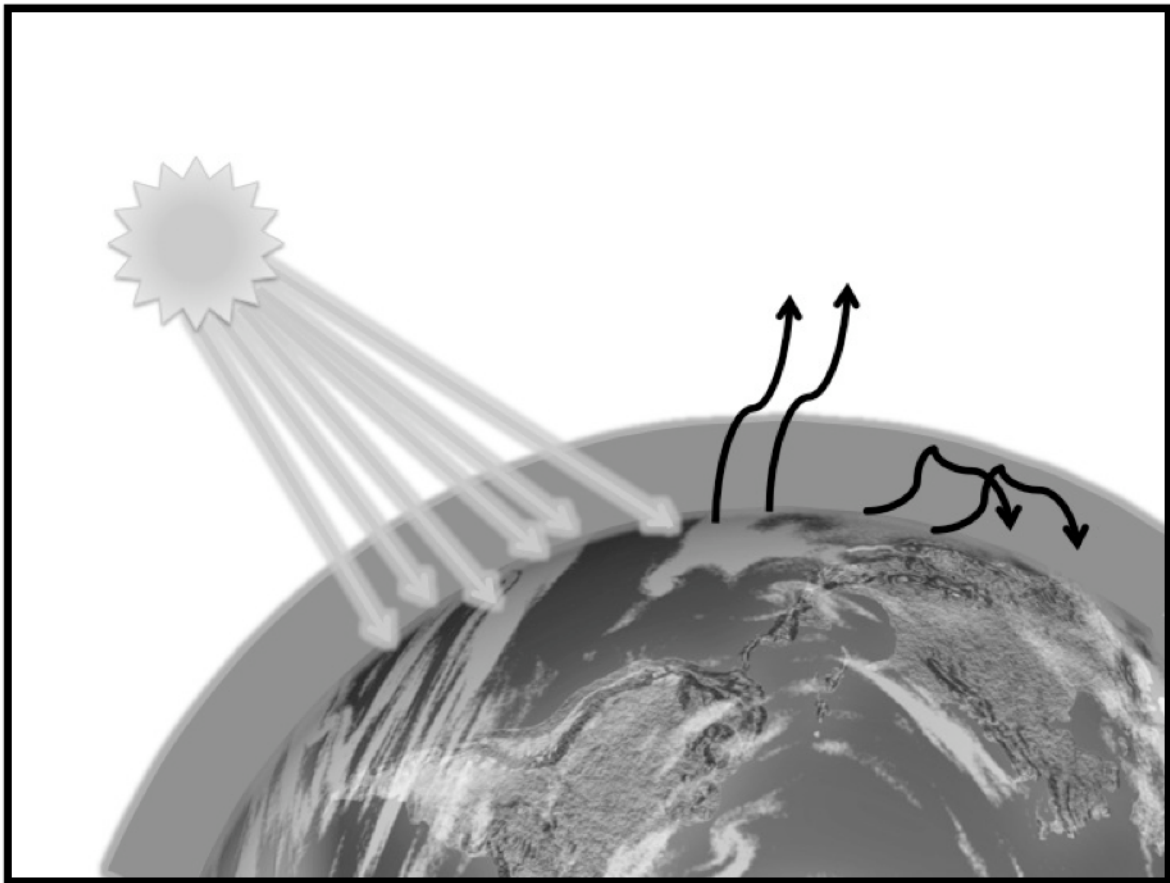
**Step 6: Conclusion**

Was your hypothesis right or wrong? Why or why not?

## Part 2: Understanding the Greenhouse Effect

*Greenhouse gases trap energy leaving Earth*

**Greenhouse Effect** – The process that raises the temperature of air in the lower part of the atmosphere because of heat trapped by greenhouse gases higher up in the atmosphere.



### Main Greenhouse Gases

Using information from our discussion of the enhanced greenhouse effect, record some of the ways these four main greenhouse gases are released into the atmosphere.

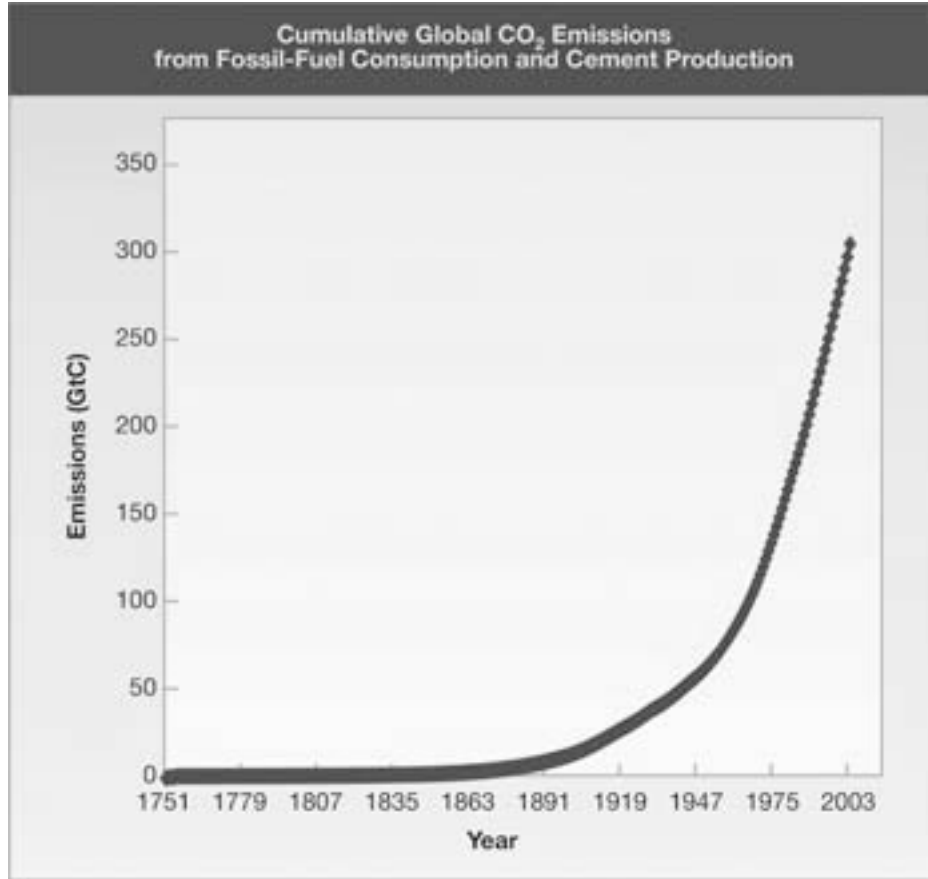
Gas	Source(s)
Carbon dioxide (CO <sub>2</sub> )	
Methane	
Nitrous oxides	

What are some of the ways the greenhouse gases were removed from the atmosphere during the game?

What do you predict might happen if Earth's average temperature increases?

## Lesson 5: Making Connections

**Carbon Emissions** - Circle the point on the graph where carbon emissions begin to increase rapidly.



Source: T.A. Boden from <http://www.usgcrp.gov/usgcrp/ProgramElements/recent/carbonFY2006.htm>

What do you notice about this graph? *Approximately what year did carbon emissions begin to increase rapidly?*

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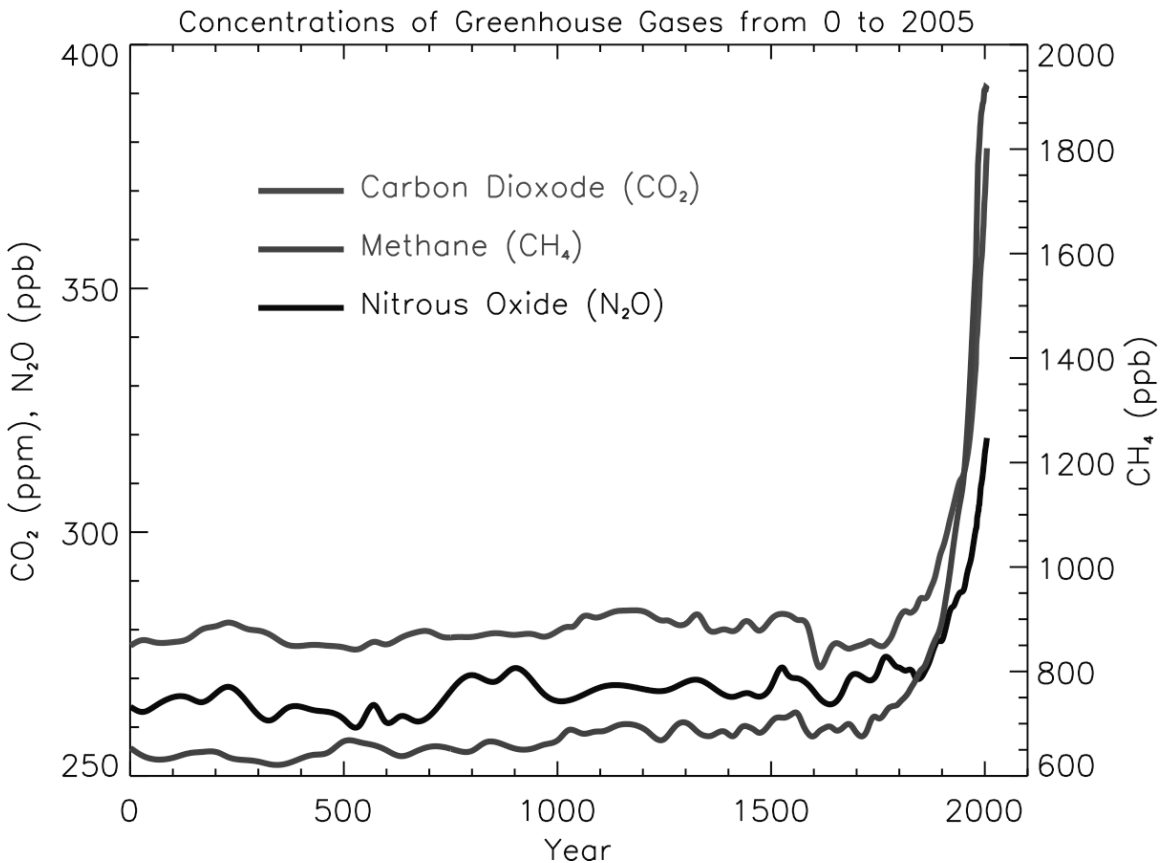
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### Concentration of Greenhouse Gases in the Atmosphere

Circle the point on the graph where the concentration of greenhouse gases begins to increase rapidly.



Source: Intergovernmental Panel on Climate Change [http://ipcc-wg1.ucar.edu/wg1/FAQ/wg1\\_faq-2.1.html](http://ipcc-wg1.ucar.edu/wg1/FAQ/wg1_faq-2.1.html)

What do you notice about this graph? *Approximately what year did carbon emissions begin to increase rapidly?*

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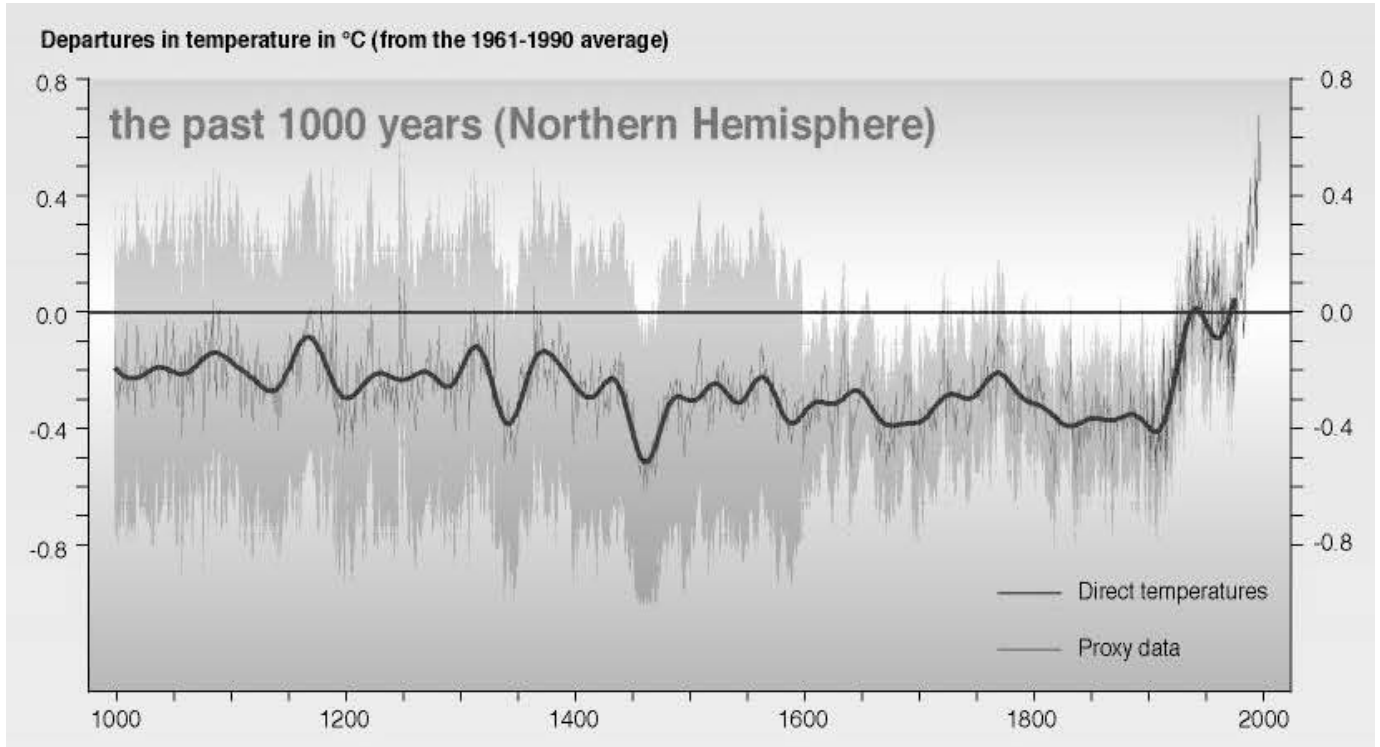
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## Average Global Air Temperature

Circle the point on the graph where the average temperature begins to increase rapidly.



Source: Intergovernmental Panel on Climate Change <http://www.ipcc.ch/ipccreports/tar/slides/large/05.16.jpg>

What do you notice about this graph? *Approximately what year did carbon emissions begin to increase rapidly?*

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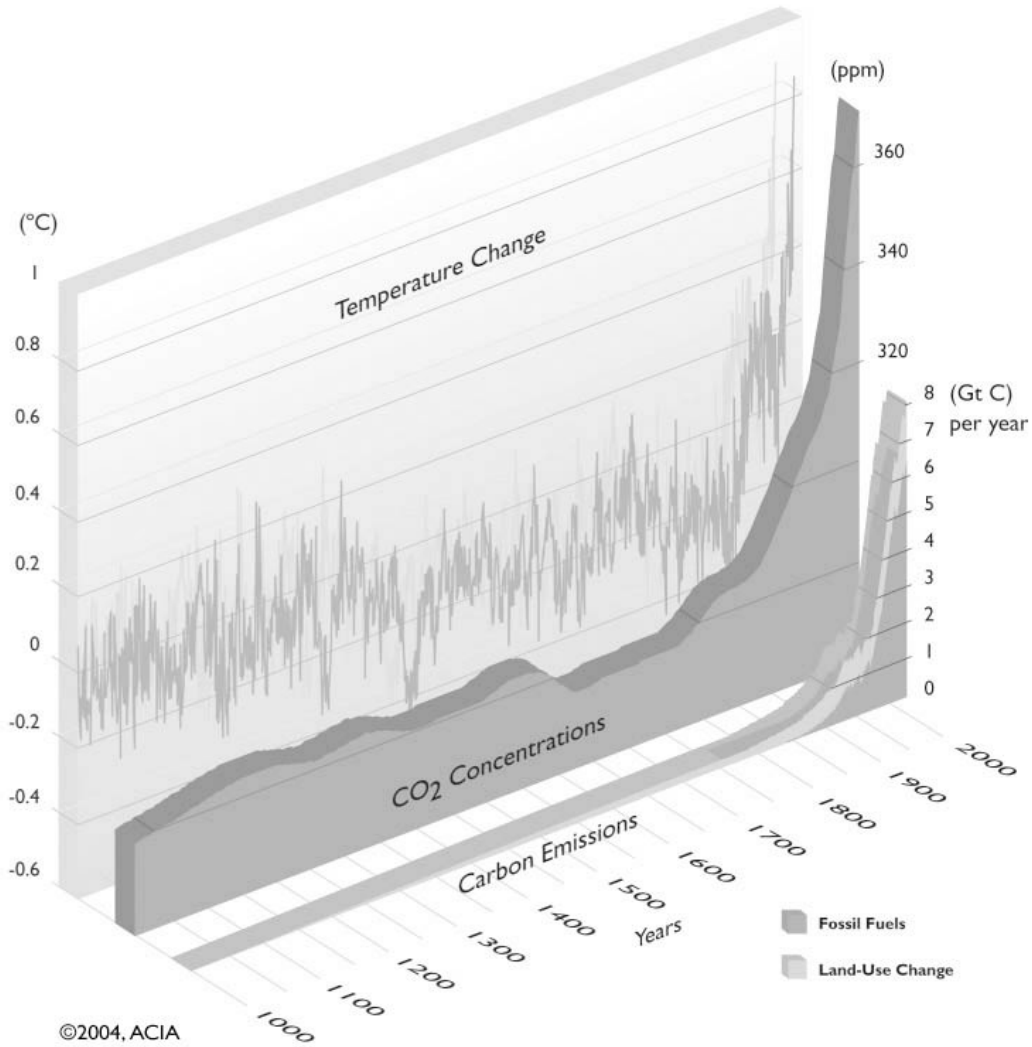
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# 1,000 Years of Changes in Carbon Emissions, CO<sub>2</sub> concentrations, and Temperature



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Used with permission from Arctic Climate Impact Assessment  
[http://www.amap.no/acia/Files/1KYrsofChg\\_150.jpg](http://www.amap.no/acia/Files/1KYrsofChg_150.jpg)

What do you notice when you look at all three graphs at the same time? Do you notice any trends? What conclusions might you make by looking at this data? *Approximately what year did carbon emissions began to increase rapidly?*

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## Lesson 6: Impacts of Climate Change

What are some changes taking (or that might take) place due to the increase in the average global air temperature?

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Pick one of the changes from above and write 3-4 sentences how this change could affect your community and your own life.

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## How Might Climate Change Affect Plants and Animals?

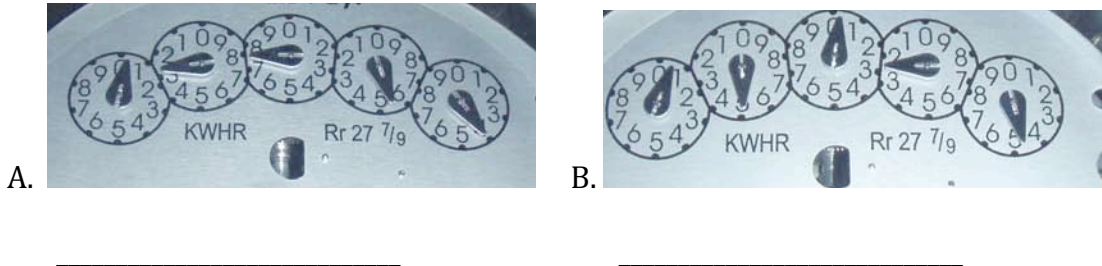
Directions: For this assignment you will be researching your assigned plant or animal and how they might be or are already being affected by climate change. Since all living things depend on other things in their habitats make sure you research their requirements for food, shelter, and water, as well as interdependence with other organisms. After completing your research you will create a poster that will be displayed for others to see.

Your poster should include the following:

- Name of plant/animal as title of the poster
- Picture (or drawing) of the plant/animal
- One sentence summary of how climate change will affect the plant/animal
- Natural History Description
  - Habitat requirements – food, water, shelter, space, what temperatures they like/need it to be
  - Family life (do they live in groups?)
- Description of Problem – As the climate starts to change how might this affect the plant/animal. Be specific!
- Recent news about the plant/animal
- List of sources on the back
- Is your poster neat?
- Did you use complete sentences?

## Lesson 7: How Much Energy Do We Use?

Reading the Meter: Read the dials from left to right and record the number that each dial pointer has passed. Notice that the dials read either clockwise or counterclockwise (if the dial lies between two numbers record the smaller number).



### Your Weekly Electricity Consumption

Initial meter reading: \_\_\_\_\_ kilowatt hours

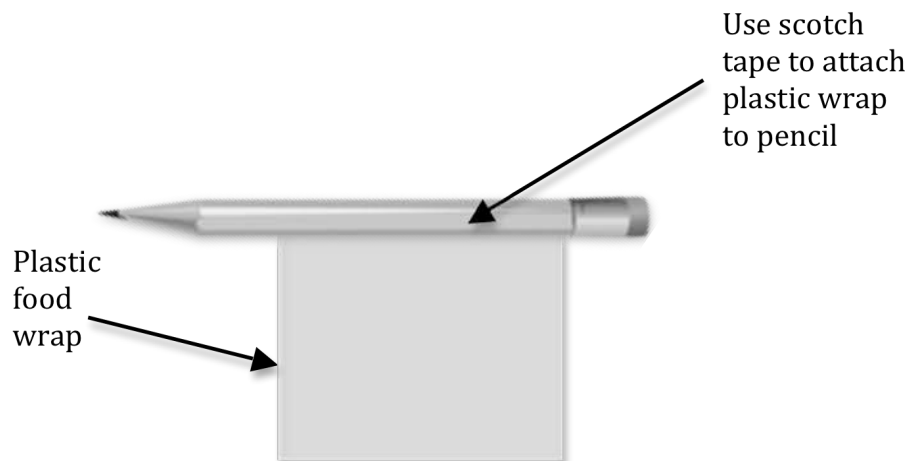
Meter reading one week later \_\_\_\_\_ kilowatt hours

### Making a Draft-o-meter for the Energy Audit Questionnaire

Draft-o-meters are used to measure the presence of drafts around windows and doors, which affects the inside temperature – making it colder in the winter or warmer in the summer, which affects the amount of electricity used to heat or cool a building.

Using a pencil, scotch tape, and plastic food wrap construct a draft-o-meter to test your home for air leaks. Hold the draft-o-meter near the edges of windows and doors and if the plastic moves there is a draft.

To make your draft-o-meter, cut a strip of plastic food wrap (approximately 2 inches x 5 inches). Attach the plastic food wrap to a pencil using scotch tape, blow on the plastic gently to make sure it responds to air movement.



## Energy Audit Questionnaire

Directions: At some point during the week, answer the following questions about your household's energy use. It is okay to ask an adult in your home for help if you do not understand the question or need helping finding something. Also if the question doesn't apply to you put an X in the box.

### Lights & Appliances

How many light fixtures are in your house?	
How many have compact fluorescent bulbs?	
How many lights are on even though no one is home (or everyone's asleep)?	
Are radios or televisions left on when no one is listening to or watching them?	
Is the computer left on when no one is using it?	
Do you clean the lint trap in your clothes dryer before drying a load of clothes?	
Do you air dry clothes?	
Do you wait until appliances are full (dishwasher, washing machine) to run them?	
Are appliances and chargers left plugged in even though they aren't being used? (such as toasters, cell phone chargers, radios, etc.)	
When getting something out of the refrigerator or freezer, do you usually make your decision before opening the door?	

### Out the Window

How many windows are in your home?	
How many outside doors are in your home?	
How many windows have drafts? (use the draft-o-meter)	
How many doors have drafts? (use the draft-o-meter)	

### Down the Drain

How long are your showers?	
Do any faucets or pipes in your house leak?	
Does your toilet continue to run after its done flushing?	
Do you usually wash your clothes in hot, warm, or cold water.	

1. Total electricity use for the week - Calculate your family's total electricity consumption for the week. Show your work and circle your answer.

2. Class total electricity consumption: \_\_\_\_\_ kilowatt hours  
Calculate the mean weekly electricity consumption for the whole class. Show your work and circle the answer.

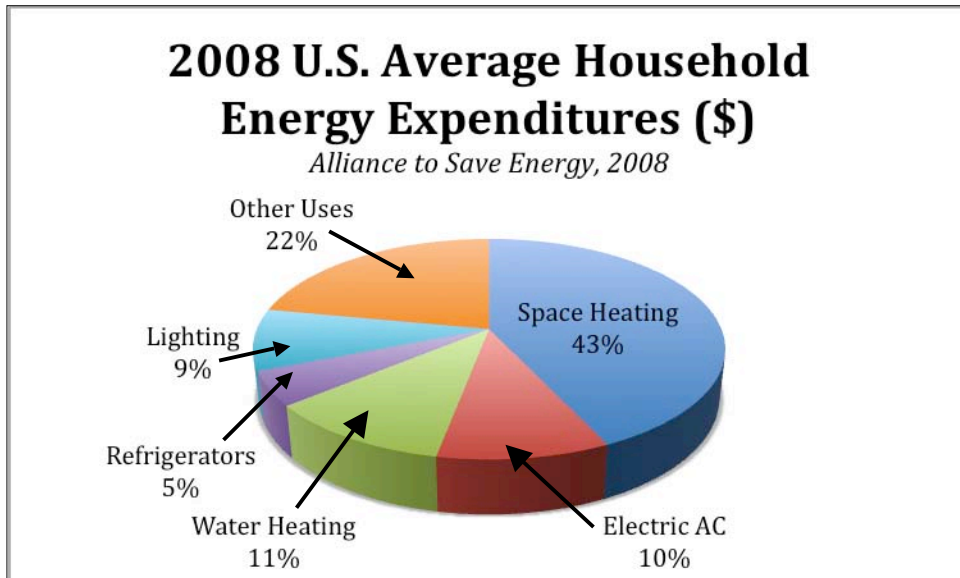
3. Calculate the mean monthly electricity consumption for the whole class. Show your work and circle the answer.

4. The average U.S. household consumes 920 kilowatt hours of electricity each month. How does our class mean monthly electricity consumption compare, are we above or below average?

5. Use your family's electricity consumption for the week to calculate (estimate) how much electricity your family consumes in a month? Show your work and circle your answer.

6. How does your family compare to the average US household, are they above or below average?

7. How do we use our energy? Help the Norm family understand how they use energy by calculating their energy use. The Norms saved all of their electricity bills for the past year and determined they spent \$2300.00 on energy last year. Refer to the pie chart for percentage amounts. *Write your answers in the table on the next page.*



*According to the Alliance to Save Energy the average U.S household will spend \$2300.00 on home energy in 2009.*

Energy Use	Total Energy Bill	x Percent (%)	(=) Equals Per Year
Heat their home	\$ 2300	x _____%	\$ _____
Cool their home	\$ 2300	x _____%	\$ _____
Heat their water	\$ 2300	x _____%	\$ _____
Run their refrigerator	\$ 2300	x _____%	\$ _____
Light their home	\$ 2300	x _____%	\$ _____
Other uses	\$ 2300	x _____%	\$ _____

8. Calculate the class yearly mean electricity consumption using your answer from number 3. Show your work and circle the answer

9. How much would the class spend on electricity for the year. Caculate this using your answer from number 8 and multiplying by 12.5¢ per kilowatt hour. Show your work and circle the answer. How does your class' electricity bill for the year compare to the Norm family's bill of \$2300.

## Making Changes

What are your ideas for how might you reduce your household's energy consumption?

Ideas and Strategies: As your teachers write all of your classes ideas and strategies copy them in the table below. *What are the three categories?*

<i>Category 1</i>	<i>Category 2</i>	<i>Category 3</i>



## Lesson 8: Where Do We Get Our Energy?

Group members:

Energy Source \_\_\_\_\_

1. Description of energy source.

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2. Benefits of using this energy source for electricity.

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3. Negative consequences of using this energy source.

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**Jigsaw Discussion:** As information is shared about each of the other six energy sources, record the name of the Energy Source and some of the benefits (+) and consequences (-) of each of the other sources.

Energy Source \_\_\_\_\_  
(+)

(-)

Energy Source \_\_\_\_\_  
(+)

(-)

Energy Source \_\_\_\_\_  
(+)

(-)

Energy Source \_\_\_\_\_  
(+)

(-)

Energy Source \_\_\_\_\_  
(+)

(-)

Energy Source \_\_\_\_\_  
(+)

(-)

## Lesson 9: How Green Are You?

Complete the questionnaire by answering all of the questions and awarding yourself points based on your answers. “Yes” answers receive all of the points, “sometimes/maybe” answers receive half of the points and “no” answers receive zero points. Based on your answers of yes, some, and no circle the corresponding points. After answering all the questions add up all of your points.

### HOME

		YES	SOME	NO
1.	Do you turn off the TV and computer when you are done with them?	4	2	0
2.	Do you turn lights off when leaving a room?	4	2	0
3.	Do you reheat leftovers in the microwave instead of the oven?	8	4	0
4.	Do you choose to open the windows on a nice day instead of turning on the air conditioner?	10	5	0
5.	Do you do two of these three things at the same time, talk on the phone, watch TV, and/or use your computer?	10	5	0

### RECYCLING

6.	Do you recycle all paper, glass, and plastic at home?	20	10	0
7.	Do you recycle when at school?	10	5	0
8.	If there is no recycling bin available when you are away from home, do you hold onto your trash until there is a bin available (i.e. bring your soda bottles and paper home to recycle)?	20	10	0
9.	Do you use both sides of a piece of paper before tossing it into the recycling bin?	4	2	0

### TRANSPORTATION

10.	Do you carpool, take the bus, walk, or bike to school?	6	3	0
11.	If you are going to a friend’s house close by, do you bike or walk there instead of asking for a ride?	10	5	0

### ENERGY

12.	Are there any compact fluorescent light bulbs installed in your household? (1 point for each light bulb)			
13.	Do you use rechargeable batteries and/or recycle your batteries after use?	6	3	0
14.	Do you unplug your cell phone and I-pod chargers from the wall after they are done charging (reducing “phantom energy” loss)?	4	2	0
15.	Does your household turn the thermostat down in the winter and wear a sweater, and up in the summer and wear shorts?	6	3	0

<b>WATER</b>		<b>YES</b>	<b>SOME</b>	<b>NO</b>
16.	Do you turn the water off while brushing your teeth?	6	3	0
17.	Are your showers less than 5 minutes long?	10	5	0
18.	Do you wait to wash your favorite pair of jeans or other items until there is a full load of wash to be done?	4	2	0

<b>FOOD</b>		<b>YES</b>	<b>SOME</b>	<b>NO</b>
19.	When able does your household choose organic foods?	20	10	0
20.	Do you use a reusable lunch bag and containers to carry food with you instead of disposable?	12	6	0
21.	When possible, does your household buy locally-grown food instead of food shipped from elsewhere?	20	10	0

<b>REDUCE &amp; REUSE</b>		<b>YES</b>	<b>SOME</b>	<b>NO</b>
22.	Do you say “no thank you” to bags at the store when you only purchase one or two things and can carry them without a bag?	16	8	0
23.	Do you bring reusable bags to the grocery store instead of taking new paper or plastic bags?	10	5	0
24.	Do you use a refillable water bottle instead of one-time use plastic bottles?	4	2	0
25.	Do you check out books from the library instead of purchasing new ones?	4	2	0

### ADDITIONAL STEPS

List up to four other steps you are taking that help. You get 4 points for the first one, 6 for the second, 8 for the third, and 10 for a fourth.

26.		4		
27.		6		
28.		8		
29.		10		

**Count up your points in each category and then calculate your grand total.**

Home \_\_\_\_\_  
 Recycling \_\_\_\_\_  
 Transportation \_\_\_\_\_  
 Energy \_\_\_\_\_

Water \_\_\_\_\_  
 Reduce & Reuse \_\_\_\_\_  
 Additional Steps \_\_\_\_\_  
 Grand Total \_\_\_\_\_



# One Thing

Directions:

Choose one habit or choice you would like to focus on for the next week. Remember that you will actually be making this change.

1. What habit are you going to change or new decision/choice did you make?

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2. Why did you make this choice and not something else?

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3. Do you think this will be an easy or hard decision to make?

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## One Thing Presentation

For my presentation I am going to create a:

- Song
- Skit
- Commercial
- Poem
- Narrative Story

### Presentation Checklist

- Is your presentation 3-6 minutes long?
- Did you include the following information?
  - Why you chose what you chose?
  - How easy or hard it was to make this change?
  - How this small change could help mitigate climate change – make the impacts of climate change less severe?
    - This may include a decrease in greenhouse gas emissions, using less water, using less gas for transportation, etc.
- What is climate change?
- How humans are having an impact on climate change?
- Other things (changes) you could do or wish people would do?

## Lesson 10: Community Conversations

### Dialogue, Debate and Careful Listening

Many times when people with differing opinions discuss topics they use debate. This often means each person is only interested in getting his or her point across and not in listening to the ideas of the other people in the conversation. Under this mode, little learning can or does happen. No one comes to understand each other. Rather, each tries to persuade the others, but because they are also more concerned with what they will say rather than really listening, there is not even much chance of persuasion.

There is another way. By engaging in dialogue and practicing good listening, everyone in a conversation can learn something from each other. Each can come to better understand the needs and ideas of others. And the group can develop a more informed and more satisfactory appreciation of the situation. If they are trying to make a decision, they will make a decision that meets more people’s needs.

	Debate	Dialogue
Premise	There is one “right” or “best” answer or option	Listening together may increase mutual respect and reveal common ground
Style	Combative – attempt to prove the other side wrong	Collaborative – attempt to find common understanding
Goal	Prove my point or disprove yours	Determine what, if anything, we will do next
Listen	To find flaws and search for weaknesses	To understand
Result	Win/lose	Mutual understanding and respect, may act, may continue exploring

Dialogue is rooted in respectful listening and thinking FIRST then respectful talking. In dialogue, the participants do NOT think about what they will say while they are listening. Rather they focus on what each other is saying and try to understand it. They ask follow-up questions to make sure they understand and to explore deeper rather than to point out flaws. In some Native American traditions, they use the idea of a “talking stick,” which is some object that the person speaking holds. The talking stick reminds those not holding it to be listening carefully rather than either talking or thinking about what they will say.

Good dialogue depends on “active listening.” There are three levels of listening, which we all use from time to time:

- **Background listening** occurs when there is sound or conversation and you are aware of it, but your awareness fluctuates... the sound comes in and out of your awareness.
- **Passive listening** occurs when information is being directed at you, but your interest fluctuates – your attention goes in and out of focus and you only hear parts of the information or conversation.
- **Active listening** occurs when you sincerely want to hear and understand what is being said – you keep your focus on what is being said and try to thoroughly understand. Some approaches or characteristics of active listening include:

- Pause and be silent before you respond, take a few seconds AFTER a person has stopped talking to think about what you will say.
- Ask follow up questions... are you sure you know what the person meant or are you making assumptions? Ask questions like: "Can you tell me more about that?" "Help me to better understand why you feel that way?" "I'm not sure I understand what you are trying to accomplish, can you explain it to me?"
- Confirm what you heard. For example, if you aren't positive what the person was saying or meant, rephrase it and check if you have it correct: "I think I heard you say \_\_\_\_\_, did I get it right?"
- Recognize not just the words the person is saying but the emotion or feeling that might be going with it... you might even respond by showing your understanding of how something must feel: "Wow, that must be really scary" "I cannot imagine how difficult that must be" "Boy, that must make you feel really good" or, if you are unsure, consider asking "How did/does that make you feel?"

Active listening is VERY powerful. When you really actively listen to someone, it shows them respect. As you practice active listening in your every-day conversations, you may be amazed at how people respond to you. You will understand other people better and, as a side benefit, you may find they listen to you more too and come to trust and respect you more.

**BEFORE the Conversation**

Directions: Read the card that describes the person you will be during the conversation. Do some research to learn more about climate change and how this person may be affected by it. Then fill out Part One of the worksheet. In class, you will be expected to participate in a conversation about climate change, but you'll be acting as if you are this person.

Glue or tape your  
community member  
profile in this space.

1. IMPACTS - How will climate change affect this person? Consider the person's business or livelihood, recreation and hobbies, expenses, transportation, etc.

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**AFTER the Conversation**

Instructions: Participate in the class’s community conversation, both by talking and by listening. As you participate, think about these questions in Part Two of the worksheet. After the conversation is over, fill out Part Two of the worksheet. You will be handing in both parts of the worksheet.

1. Were you able to express your character’s concerns and/or ideas? Did you feel listened to? Why or why not?

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2. Other than the concerns you already identified for your character BEFORE the Conversation, what are other concerns people had? List at least three.

1. 

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2. 

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3. 

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Other concerns: 

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3. Other than the ideas you identified for your character BEFORE the Conversation, what are some ideas for action other people had? List at least three.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Other ideas: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. Is it obvious from the conversation what steps and actions should be taken to slow climate change? Was there agreement in the group?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. How hard do you think it will be to slow climate change? Why?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Lesson 11: Dear Senator

### Key points to consider when writing a letter to a politician

- Be courteous and respectful.
  - Keep the letter short (typed one-page letters are best).
  - Clearly and simply state the purpose of your letter. Your letter should deal with only one major topic or issue (climate change).
  - If you are aware of anything positive that the politician has done regarding climate change, state it.
  - If you are planning to criticize, make sure to start with positive comments first.
  - Express your concerns and support them with research and facts from experts and also comments from others in your community.
  - Put the main point at the beginning and progressively less important details toward the end.
  - At the end of your letter include the action you want taken: a vote for or against a bill, or change in general policy. Then explain the action you would like the politician to take using examples of how they can take action.
  - End your letter by thanking the politician for taking the time to read your letter.
  - Make sure the letter is concise, grammatically correct, and has no spelling mistakes. It's always a good idea to have someone edit the letter before you send it.
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Directions: Using the following checklist write a letter to your senator or representative.

- I am writing my letter to \_\_\_\_\_.
- In the first paragraph I included my name, grade, and school.
- I included something this person is doing or has already done.
- I included at least one of my major concerns about climate change.
- I have included 1-3 examples of things I have done or am doing to change my own impact on climate change, which could include:
  - Discussion about my “One Thing” (Lesson 10)
  - Energy Audit from Lesson 7
  - Studying climate change in school
  - A habit that I’ve changed
- I have included what the connection is between humans and climate change.
- I have included what I would like this person to do about climate change and explained why this is important using at least two facts from previous lessons.
  - Example: Support legislation for clean energy sources because when we burn coal it releases greenhouse gases into the atmosphere, which traps energy and thus is increasing the global average air temperature.
- I thanked them for taking the time to read my letter.
- I used the format provided by my teacher to structure my letter.
- I wrote in complete sentences.
- I used correct grammar and punctuation.
- For the return address I used the school’s address.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_