

Healthy Earth, Sick Earth

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INTRODUCTION

This lesson uses the book *Planet Earth Gets Well* by Madeline Kaplan to introduce students to concepts related to climate change and properly caring for the Earth. Students will learn what they can do to help make the Earth "healthy" and what others are doing that is making the earth "sick."

LESSON OVERVIEW

Grade Level and Subject: Grades K-5 Science, Reading

Length: 1 class period

Objectives:

After completing this lesson, students will be able to:

- Form reactions and ask questions in response to the book
- Make analogies between the Earth's systems and the human body's systems
- Understand ways to make Earth both "healthy" and "sick"

National Standards Addressed

This lesson addresses the following National Education Standards¹:

• Content Standard: NS.K-4.4 EARTH AND SPACE SCIENCE

As a result of their activities in grades K-4, all students should develop an understand of

- Properties of earth materials
- Objects in the sky
- Changes in earth and sky
- Content Standard: NS.K-4.6 PERSONAL AND SOCIAL PERSPECTIVES

As a result of their activities in grades K-4, all students should develop an understand of

- Personal health
- Characteristics and changes in populations
- Types of resources
- Changes in environments
- Science and technology in local challenges
- Content Standard: NL-ENG.K-12.3 EVALUATION STRATEGIES
 - Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word

¹ Education World (2008) *U.S. National Education Standards*. Retrieved March 19th, 2009 http://www.education-world.com/standards/national/index.shtml.

identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).

Materials Needed:

- Planet Earth Gets Well, by Madeline Kaplan (http://www.planetearthgetswell.com/)
- Reproducible #1- Healthy Earth, Sick Earth (print and cut these into ½-sheet cards)
- Chalkboard, whiteboard, easel pad, etc.
- Tape

Assessment:

Students will be assessed through the following activities:

- Participation in activity three with Reproducible #1- Healthy Earth, Sick Earth
- Overall attentiveness and participation

LESSON BACKGROUND

Relevant Vocabulary:

- Conserve: Using less of something to protect it from being used up, lost, or damaged.
- **Pollution:** Putting harmful contaminants into an environment where they do not belong.
- Think Green: Thinking and making decisions in a way that keeps the environment healthy and safe.
- **Global warming:** An increase in the earth's temperature caused by the emission of greenhouse gases into the atmosphere.
- **Ice caps:** The large sheets of ice that cover both the North and South Pole.
- **Solar energy:** A renewable resource that uses the sun's heat and light to create energy.
- **Hurricane:** Severe tropical storms with high winds and precipitation that can cause a lot of damage.

Information:

Madeline Kaplan's book *Planet Earth Gets Well* covers topics related to climate change in a way that younger students can understand. She describes Earth as being "sick" and compares it to many symptoms that humans have when they are feeling ill. Topics covered in the book include melting ice caps, rising temperatures, conserving energy and fuel, air pollution, the hole in the ozone, and extreme weather patterns.

The main lesson of the book is to "think green" so that the Earth can stay healthy and be a safe place for everyone to live. By learning simple ways that they can help Earth become healthier (recycling, carpooling, using less paper, etc.), students begin to learn about environmental issues without being overwhelmed by the details and magnitude of them.

Resources:

Earth Day Network Educators' Network with further information and activities related to *Planet Earth Gets Well:* http://www.earthday.net/education

Planet Earth Gets Well homepage: http://www.planetearthgetswell.com/

Interview with the author: http://ecochildsplay.com/2008/08/20/an-interview-with-madeline-kaplan-author-of-planet-earth-gets-well/

United States Environmental Protection Agency's basic climate change site: http://www.epa.gov/climatechange/

United States Environmental Protection Agency's climate change site for kids: http://epa.gov/climatechange/kids/index.html

Basic advice on steps towards "going green": http://planetgreen.discovery.com/go-green/back-basics/index.html

LESSON STEPS

Warm Up: Introducing the Book

1. Introduce *Planet Earth Gets Well* to the students by giving a brief description on what the book is about. Ask them if they have any ideas on how and why Earth might be "sick."

Activity One: Reading "Planet Earth Gets Well"

1. Read Madeline Kaplan's book, *Planet Earth Gets Well*, to your students. Focus on the comparisons she makes between the ways the Earth functions and the ways our bodies function. (Note: for older grade levels have the students practice their reading by each read a paragraph out loud. Or, if you have enough books, have them read on their own or in small groups). Also allow time for each student to see and discuss the illustrations in the book.

Activity Two: What Did You Learn?

- 1. Discuss the book with your students. Ask them if there was anything that they did not understand.
- 2. Ask students what they learned from the book and write it down using a chalkboard, whiteboard, easel pad, etc. Use prompt questions such as:
 - a) Why didn't the Earth feel well?
 - b) How was the Earth's sickness had similar to what our bodies do when we are sick? What were some "symptoms"?
 - c) What can we do to help the Earth feel better?
 - d) What can we do to stop the Earth from feeling sick?
 - e) What was your favorite thing about the book?

Activity Three: What Makes the Earth Either Healthy or Sick?

- 1. Divide a chalkboard, whiteboard, etc. into two columns and label one "Makes Earth Sick" and the other "Makes Earth Healthy."
- 2. Using **Reproducible #1- Healthy Earth, Sick Earth**, hold the pictures up one by one and ask students which column it belongs to. Have them explain why it makes the Earth either healthy or sick and then let them tape the picture underneath the proper column. Have older students write the words or phrases in each column.

3. After you have finished, go through each column with students and review what they placed on each side. Have them double check to make sure everything was put on the right side.

Wrap Up: Putting it into Words and Pictures

- 1. Have students write down, draw a picture, or share with the class one thing that they are going to do in the next week to help the earth be healthy.
- 2. Make a list of actions or display any artwork they did around the classroom as a reminder of what they can do to keep the Earth healthy.

Extension: Taking Action

- 1. Have your students brainstorm some things that they can do around the classroom (or even the entire school) to help Earth be healthy. Can you recycle? Use less water? Reduce waste and conserve the amount of supplies you use? Have them create posters to display around the classroom that remind them to recycle, conserve, etc. (for example, hang one by the sink to that encourages using less water).
- 2. Have students participate in the Climate Change Solutions Contest (spring 2009). See www.earthday.net/education for details and guidelines.

CONCLUSION

By reading and discussing the book *Planet Earth Gets Well* by Madeline Kaplan, students will learn the basics of global warming through Kaplan's description of Earth as a sick child. They will also learn simple actions and choices they can make to keep Earth healthy and make it a safe place for us to live.

Reproducible #1- Healthy Earth, Sick Earth

Cut Pages in half and use during Activity three: What Makes the Earth Either Healthy or Sick?



Recycling your old Newspapers, plastic bottles, and glass



Turning off lights when not in use



Using the sun's heat to create energy for your home or school



Carpooling to save fuel



THINKING GREEN!



Using Less Paper



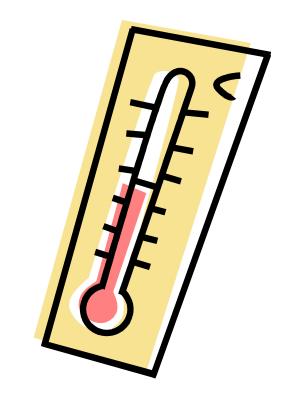
Planting Trees



Riding your bike or walking to places nearby



Turning off the water when you are not using the sink



Rising Temperatures



Melting ice caps



Severe Weather



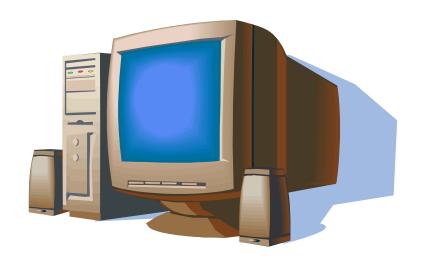
Littering



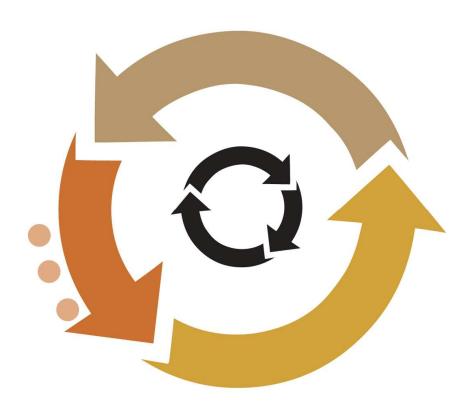
Pollution



Cutting down trees



Leaving the computer on when you are **not** using it



Throwing something out that can be reused for something else