

Ecological Empowerment



Helping Kids Help the Environment
Lesson Four: Land Pollution

Topic: Land Pollution

Ages: 6-11 years

Time Allotment: TBD by Participating Educator

Minimum Suggested Time Frame

Three 45-60 minute sessions broken down into the following components:

- Introductory Activity / VIEW Component
- READ Component
- DO Component

Further time will be needed should you choose to partake in the following activities:

- Additional Technology Extension
- Culminating Community Volunteering Connection Component

OVERVIEW

In their efforts to practice environmental citizenship, children can focus on reducing land pollution in and around their communities. In this multi-step lesson, children will participate in a series of literacy-based multimedia, online, and hands-on learning experiences to examine the concept of environmental citizenship as it applies to land pollution. Voluntary opportunities for volunteering within local communities will be presented to the children.

Integrated Curricula

Social Studies / Civics, Language Arts, Environmental Science

Learning Objectives

The children will:

- learn that by using teamwork, a large job can become more manageable.
- understand that garbage belongs in proper places and receptacles.
- learn about the value of recycling and be able to identify some household items that can be reused or recycled.

Media Components:

Video

Arthur Episode #125: "Arthur Cleans Up"

Web Sites

Arthur at <http://pbskids.org/arthur/>

This web site features a hands-on activity entitled "Arthur's Litter Crusade," which the kids can complete.

Earthday Groceries Project at <http://www.earthdaybags.org/>

This web site describes a national volunteer activity focused on Earth Day.

60 Second Science at <http://60secondscience.org/activities/structures.html>

This web site features a hands-on activity entitled "Structures," which the kids can complete.

Zoom Activities from the Show at <http://pbskids.org/zoom/activities/do/recycledjunkcreature.html>

This web site features a hands-on activity entitled "Recycled Junk Creatures," which the kids can complete.

Zoom Activities from the Show at <http://pbskids.org/zoom/activities/do/junkpictureframe.html>

This web site features a hands-on activity entitled "Junk Picture Frames," that the kids can complete.

Zoom into Action at <http://pbskids.org/zoom/activities/action>

This web site features several environmentally related volunteer projects that the kids can complete.

Materials

(For each student)

If completing *Arthur's Litter Crusade*:

- art supplies
- glue
- large box
- recycled materials

If completing *Earthday Groceries Project*:

- markers
- one brown paper grocery bag for each child

If completing *60 Second Science Structures*:

- clean recyclables
- roll of tape for each child
- glue
- scissors
- paint
- glitter, buttons or other items which would add color or texture

If completing *Zoom Junk Picture Frame*:

- Household items: buttons, plastic toys, paper clips, sea shells, marbles, pasta, beans, pennies, etc.
- glue
- corrugated cardboard
- scissors
- picture or photograph

If completing *Zoom Recycled Junk Creature*:

- recycled materials: cardboard boxes, cups, milk cartons, empty bottles, cans, newspapers, toilet paper, paper towel and wrapping paper tubes, or any other recycled materials you find around your house
- masking tape (to stick the pieces of your creature together)
- paint (to decorate your junk creature)

(For the group)

- at least one copy of a suggested book from the environment-related booklist or one from your personal library that features a thematically appropriate topic
- computer(s) with Internet access
- TV Monitor / VCR
- VHS Copy of *Arthur*: Episode #125: "Arthur Cleans Up"

Preparation for Participating Educator:

- Prior to teaching this lesson, it may be helpful to bookmark the web sites used during the course of this lesson on the computer(s) you and the children will be using.
- Preview the video VIEWING segment before watching it with the children in your care. This will help you better understand the content and how to engage children with questions before, during, and after this VIEWING segment.
- Cue the VHS video tape to the proper segment.
- Have all student materials accessible and ready to be distributed to the children.

INTRODUCTORY ACTIVITY

Engage the children in your care in a discussion about the benefits of working as part of a team.

Working as a team can make large projects more manageable.

Activate the children's prior knowledge by asking them to describe the chores and responsibilities they currently have at home or at school.

Ask the children if they prefer working alone or working with others. Have them explain their answers to the group.

Explain that taking care of the environment is another kind of responsibility that adults and children share. Help the children understand that adults and children can work together as a team to protect our planet.

While talking with the children, be sure to stress the fact that even though they might be young, children can help make a difference.

VIEWING ACTIVITY

Arthur Episode #125: "Arthur Cleans Up"

Program Description: Elwood City's park is in sad shape, and after grumbling about it, the kids find themselves volunteered to clean it up. And even though it's a lot of work, in the end they all decide it feels great to make a difference.

Before Viewing the Program

The following words are introduced by various characters in the episode:

- Environment
- Recycle/reuse
- Sanitation

Discuss each vocabulary word with the children in your care. While discussing the words, try to make real world connections between each word and the prior experiences of the children. After sharing each vocabulary word, try to re-word each term into kid-friendly language. Keep paper and crayons ready in case sketches or illustrations are necessary to help kids visualize and understand the meaning of each vocabulary word.

- **recycle/reuse:** Minimizing waste generation by recovering and reprocessing usable products that might otherwise become waste. (i.e. recycling of aluminum cans, paper, and bottles, etc.)
- **sanitation:** the promotion of community hygiene and disease prevention especially by keeping up sewage systems, by collecting and disposing of trash and garbage, and by cleaning streets
- **environment:** a: the whole complex of factors (as soil, climate, and living things) that influence the form and the ability to survive of a plant or animal or ecological community b: the social and cultural conditions that influence the life of a person or human community

(Sources of Definitions: <http://www.wordcentral.com/> & <http://www.epa.gov/OCEPATERMS/>)

Access the prior knowledge of the children in your care by asking some questions related to what they already know about garbage collection and sanitation.

Using the information the children provide, brainstorm and write a list of things that the children know about garbage collection and sanitation on chart paper or poster board.

Keep this list visible throughout the course of these lessons about land pollution. Be sure to encourage children to add more details about the topic of garbage collection and sanitation after they watch the VIEW segment.

AFTER VIEWING THE EPISODE

After watching the episode with the children in your care, you can help the children better understand

the content of the videotape by posing comprehension questions based on the content that they have just watched.

Here are some samples of the kinds of questions you might ask:

- Why did Arthur decide that Elmwood City Park needed help?
- How did Arthur feel about asking his friends to help him clean up the park at the beginning of the episode? How did his feelings change by the end of the episode?
- How was teamwork important in this episode?

READING ACTIVITY

In a whole group setting, read aloud one of the suggested books from the environment-related booklist or another book from your personal library that features thematically appropriate content.

One way to engage your young listeners during the reading experience is to pause at a strategic point in the story and to ask the children a question related to something critical in the story.

After you finish reading the entire story, it is also helpful to ask the children several comprehension questions to gauge the children's level of understanding.

DOING ACTIVITIES

Choose one or more of the following activities to extend the learning from the viewing and reading pieces of this lesson.

1. Arthur Litter Crusade at <http://pbskids.org/arthur/>
2. Click: "Parents & Teachers"
3. Click: "Activities"
4. Click: "Creative Thinking & Problem Solving"
5. Click: "Litter Crusade"

60 Second Science Structures Activity at <http://60secondscience.org/activities/structures.html>

Zoom Junk Picture Frame at <http://pbskids.org/zoom/activities/do/junkpictureframe.html>

Zoom Recycled Junk Creature at <http://pbskids.org/zoom/activities/do/recycledjunkcreature.html>

ADDITIONAL TECHNOLOGY EXTENSION

Zoom, one of the children's shows in the PBS Kids Go! program block, has a companion website with a civic engagement feature entitled "Zoom into Action."

1. Access the "Zoom into Action" feature at the following URL: <http://pbskids.org/zoom/activities/action/>
2. Click: "How You Can Help: Great Ways to Volunteer"
3. Click: "Help the Environment"
4. Scroll through and read the information provided. Share the following Project Spotlights with the children in your care:
5. Playground Pick-Up
6. Plant a Tree

CULMINATING COMMUNITY VOLUNTEERING CONNECTIONS: ROCHESTER, NY & NATIONWIDE

There is a national program entitled the *Earthday Groceries Project* that children can participate in on a local level.

Participating in this volunteer program, or a similar program, can help children extend and apply the learning that has taken place through the READ, VIEW, & DO components of the Learning Triangle. *The Earth Day Groceries Project* is a cost-free environmental awareness project in which students

decorate paper grocery bags with environmental messages for Earth Day. One of the oldest and largest educational projects on the Internet, the *Earth Day Groceries Project* is managed online by Mark Ahlness, a third grade teacher at Arbor Heights Elementary School in Seattle, Washington.

This activity is also open to organizations other than schools. Cub Scout troops, environmental camps, after school programs, and many others have joined in before.

For information about the *Earthday Groceries Project* program, access the following URL:

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

ENVIRONMENT-RELATED BOOKS

The Berenstain Bears Don't Pollute (Anymore)

Stan Berenstain, Jan Berenstain

Reading level: Baby-Preschool

Publisher: Random House Books for Young Readers (September 3, 1991)

Dear Children of the Earth: A Letter from Home

Schim Schimmel

Reading level: Ages 4-8

Publisher: Northword Press (May 1, 1994)

Earth Book for Kids: Activities to Help Heal the Environment

Linda Schwartz

Reading level: Ages 9-12

Publisher: Learning Works (June 1, 1990)

Earth Day Birthday (Sharing Nature With Children Book)

Pattie Schnetzler

Reading level: Ages 4-8

Publisher: Dawn Publications (CA); 1st edition (February 1, 2004)

The Father of All Trees

Peter L. Townsend,

Reading level: Ages 4-8

Publisher: Life's Footprints (October 1, 1999)

The Garbage Monster

Joni Sensel

Reading level: Ages 4-8

Publisher: Dream Factory Books (April 1, 2001)

The Great Kapok Tree: A Tale of the Amazon Rain Forest

Lynne Cherry

Reading level: Ages 4-8

Publisher: Voyager Books; Reprint edition (March 13, 2000)

Janice VanCleave's Ecology for Every Kid: Easy Activities that Make Learning Science Fun

Janice VanCleave

Reading level: Ages 9-12

Publisher: Wiley; 1 edition (December 29, 1995)

Just a Dream

Chris Van Allsburg

Reading level: Ages 4-8

Publisher: Houghton Mifflin (October 29, 1990)

The Lorax

Dr. Seuss

Reading level: Ages 4-8

Publisher: Random House Books for Young Readers (August 12, 1971)

The Paper Bag Prince (Dragonfly Books)

Colin Thompson

Reading level: Ages 4-8

Publisher: Dragonfly Books; Reprint edition (April 22, 1997)

Projects for a Healthy Planet: Simple Environmental Experiments for Kids

Shar Levine

Reading level: Ages 9-12

Publisher: Wiley; 1 edition (April 24, 1992)

Recycle! : A Handbook for Kids

Gail Gibbons

Reading level: Ages 4-8

Publisher: Little, Brown; Reprint edition (April 1, 1996)

CULMINATING EXPERIENCE

Invite children to apply their knowledge of environmental citizenship to the scenarios presented by Eeko World.



What if you could create your very own, one-of-a-kind creature and help it survive in a topsy-turvy environment? The new EekoWorld website is geared toward kids ages six to nine and lets them explore ecosystems, environmental issues and conservation while playing two interconnected online games.

EekoCreature lets kids create unique critters, unleash them on the world and help make environmentally-correct choices like limiting clear cutting or supporting the creation of national parks to keep their creature healthy. And in EekoHouse, the kids can earn health points by conserving in everyday ways like recycling, shutting faucets and saving energy.

The highly interactive and customized game play is just one avenue to engage this age group. The EekoWorld website also features animated tours of ecosystems — from problems and solutions to actions kids can take — as well as animated demonstrations of recycling, water cycles and plant/animal food chains explained by kids, to kids. As a staple of PBS websites, EekoWorld offers rich parent and teacher resources including lesson plans, activities and external reading to encourage kids to be more aware of their environmental impact and take steps to keep the Earth healthy.

