DRAFT

For Review Purposes Only

These draft materials are intended to provide teachers with insight into the content and structure of the Listening & Learning strand of Core Knowledge Language Arts materials.

Revised materials produced specifically for NYSED, including materials from the Skills Strand, will be posted on this site in 2013. These new materials will include explicit alignment with Common Core State Standards, additional support for English Language Learners, and images and texts compliant with Creative Commons Licensing.

For more information on how to explore these materials, please see the Getting Started resources posted alongside these files on EngageNY.org.

Core Knowledge®

The Core Knowledge Language Arts Program

Listening & Learning Strand

Tell It Again! Read-Aloud Anthology

Taking Care of the Earth

Published by the Core Knowledge Foundation

www.coreknowledge.org

PRINTED IN CANADA

10 9 8 7 6 5 4 3 2 1

TABLE OF CONTENTS

The Core Knowledge Language Arts Program

Taking Care of the Earth

Introduction to Taking Care of the Earth

This introduction includes the necessary background information to be used in teaching the Taking Care of the Earth domain. The *Tell It Again! Read-Aloud Anthology* for Taking Care of the Earth contains eleven daily lessons, each of which is composed of two distinct parts, so that the lesson may be divided into smaller chunks of time and presented at different intervals during the day. The entire lesson will require a total of fifty minutes.

We have included two Pausing Points in this domain, one after Lesson 6 and another after Lesson 11 at the end of the domain. You may wish to pause and spend one to two days reviewing, reinforcing, or extending the material taught prior to each of the two Pausing Points. You should spend no more than fifteen days total on this domain.

Along with this anthology, you will need:

- *Tell It Again! Media Disk* or the *Tell It Again! Flip Book* for Taking Care of the Earth
- *Tell It Again! Image Cards* for Taking Care of the Earth
- *Tell It Again! Workbook* for Taking Care of the Earth
- *Tell It Again! Earth Hat* for Taking Care of the Earth

You will find the Instructional Objectives and Core Vocabulary for this domain below. The lessons that include Student Choice/ Domain-Related Trade Book Extensions, Image Cards, Parent Letters, Instructional Masters, and Assessments are also listed in the information below.

Why Taking Care of the Earth Is Important

This domain will introduce your students to the importance of being environmentally-aware individuals. Students will learn that the best way to conserve Earth's natural resources is to practice the three 'R's of conservation—reduce, reuse, and recycle. By studying conservation, students will become familiar with the earth's natural resources and will begin to recognize how people's actions affect the environment in which we live. Students will learn specifically about land, water, and air pollution as well as the water cycle, the journey of trash from its creation to its burial in a landfill, and the steps in the recycling and composting processes. Practical examples of how students can help take care of the earth are included in every lesson.

All the read-alouds, with the exception of Lesson 7—a fun poem, "Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out," by Shel Silverstein—are narrated from the first-person perspective of Earth itself. Teachers are invited to wear the Earth Hat that is included with the materials for this domain. Use of the hat will help with the transition each day to the reading of the read-alouds, and it will help students understand the purpose of the read-alouds. This is not simply a novelty. It will get the students' attention.

Instructional Objectives for Taking Care of the Earth

The following chart contains all of the Core Content Objectives and Language Arts Objectives for this domain, broken down by lesson.

Taking Care of the Earth Overview											
Objectives	**Lessons**										
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Core Content											
Understand that Earth is composed of land, water, and air	✓										
Identify examples of land, water, and air from their own environments	✓										
Understand that humans, plants, and animals depend on Earth's land, water, and air to live	✓										
Understand why people have a special responsibility to take care of the earth	✓										✓
Understand that humans generate large amounts of garbage, which must be disposed of		✓					✓				
Sequence what happens to garbage from its creation to being dumped in the landfill		✓									
Explain what a landfill is and why it is a dangerous place		✓									
Evaluate whether landfills are an adequate solution to the problem of garbage		✓									
Understand that natural resources are things found in nature that are valuable and of great importance to people			✓								
Identify key natural resources and describe how people use them			✓								
Recognize the phrase "Reduce, reuse, recycle" and explain how doing these three things can help to conserve natural resources				✓							
Identify the recycling symbol and understand that recycled materials are made from reused garbage				✓							
Identify common recyclable materials, including glass, plastic, aluminum, cardboard, and paper					✓						
Understand the process of recycling materials from home to recycling factory					✓						
Understand that composting is a type of recycling in which discarded food scraps decay in an outdoor pile or bin and eventually become garden soil						✓					
Sequence what happens to a piece of discarded food from table to compost pile to garden						✓					
Identify foods that can be composted						✓					

Objectives	Lessons										
	1	2	3	4	5	6	7	8	9	10	11
Core Content											
Identify garbage as being a problem and the various means of garbage disposal in terms of a solution							✓				
Understand that land, air, and water all suffer from different types of pollution, and all types of pollution are caused by human activities								✓			
Understand that if people are careful and creative, they can help reduce pollution								✓			
Understand that air pollution from one location can make even the air that is far away in other places around the world dirty									✓		
Identify sources of air pollution, including cars and electricity produced by coal-fired power plants									✓		
Understand the effect of air pollution on human health									✓		
Explain how to reduce air pollution by conserving natural resources									✓		
Compare and contrast fresh water, salt water, and wastewater										✓	
Understand that many living things, including humans, need fresh water to survive, and that there is a limited supply of fresh water on Earth										✓	
Identify sources of water pollution, including factory waste and garbage										✓	
Explain that a water treatment plant can remove unhealthy chemicals and pollutants from water to make it usable again										✓	
Identify possible solutions for the problems of garbage, litter, pollution, and conserving natural resources discussed throughout the domain											✓
Language Arts											
Use agreed-upon rules for group discussions . . . (L.K.1)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Carry on and participate in a conversation . . . (L.K.3)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Follow multi-step, oral directions (L.K.5)				✓		✓					
Learn and use appropriately common sayings and phrases such as “A place for everything, and everything in its place” (L.K.7)					✓						
Use language to express spatial and temporal relationships . . . (L.K.8)		✓									
Understand print and identify parts of book . . . (L.K.9)										✓	
Prior to listening to a read-aloud, identify what they know and have learned that may be related . . . (L.K.10)	✓			✓	✓			✓	✓		

Objectives	Lessons										
	1	2	3	4	5	6	7	8	9	10	11
Language Arts											
Listen to and understand a variety of texts . . . (L.K.11)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Make predictions prior to and during a read-aloud . . . (L.K.12)		✓				✓				✓	
Describe illustrations (L.K.13)	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Use pictures accompanying the read-aloud to check and support understanding . . . (L.K.14)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud . . . (L.K.15)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Use narrative language to describe people, places, things, locations, events, actions, a scene, or facts in a read-aloud (L.K.16)							✓				
Answer questions that require making interpretations, judgments, or giving opinions . . . (L.K.17)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Compare and contrast similarities and differences . . . (L.K.18)				✓				✓		✓	
Make personal connections . . . (L.K.19)							✓				
Draw pictures and/or dictate ideas to represent details or information from a read-aloud (L.K.21)							✓				
Distinguish fantasy from realistic text (L.K.22)	✓						✓			✓	
Evaluate and select read-alouds, books, or poems on the basis of personal choice for rereading (L.K.23)									✓		
Learn new words from read-alouds and discussions (L.K.24)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Retell important facts and information from a read-aloud (L.K.30)		✓		✓		✓		✓			✓
Sequence four to six pictures illustrating events from a nonfiction read-aloud (L.K.31)		✓									
With assistance, categorize and organize facts and information . . . (L.K.32)	✓							✓			✓

Core Vocabulary for Taking Care of the Earth

The following list contains all of the boldfaced words in Taking Care of the Earth in the forms in which they appear in the text. The inclusion of the words on this list *does not* mean that students are expected to immediately be able to use all of these words on their own. However, through repeated exposure throughout the lessons, they should acquire a good understanding of most of these words and begin to use some of them in conversation.

Lesson 1

creatures
Earth
outer space
responsibility
surface

Lesson 2

decompose
dumpster
hazardous
landfill

Lesson 3

conserve
decayed
natural resources
oxygen

Lesson 4

action
generate
products
recycle
reduce

Lesson 5

aluminum
furnace
solution
sorted

Lesson 6

compost
leftovers
nutrients
process

Lesson 7

cellophane
fate
rancid

Lesson 8

litter
pitch in
pollution
smog
toxic

Lesson 9

appliance
exhaust
global
harmed
power plant

Lesson 10

evaporate
pollutants
reservoirs
supply
wastewater

Lesson 11

carpool
effort
organize

Student Choice and Domain-Related Trade Book Extensions

In the *Tell It Again! Read-Aloud Anthology* for Taking Care of the Earth, Student Choice activities are suggested in both Pausing Points and in Lesson 9B. Domain-Related Trade Book activities are suggested in both Pausing Points and in Lesson 10B. A list of recommended titles is included at the end of this introduction, or you may select another title of your choice.

Taking Care of the Earth Image Cards

There are eighteen Image Cards for Taking Care of the Earth. The Image Cards include illustrations that may be used to enhance students' understanding of what happens to trash from its creation to its burial at a landfill. Image Cards are also included to help students learn the step-by-step process of composting. In the *Tell It Again! Read-Aloud Anthology* for Taking Care of the Earth, Image Cards are referenced in both Pausing Points as well as in Lessons 2, 4, and 6.

Instructional Masters and Parent Take-Home Letters

Blackline Instructional Masters and Parent Take-Home Letters are included in the *Tell It Again! Workbook*. In the *Tell It Again! Read-Aloud Anthology* for Taking Care of the Earth, Instructional Masters are referenced in the Domain Assessment, and in Lessons 3B, 5B, and 6B. The Parent Letters are referenced in Lessons 1B and 6B.

Assessments

In the *Tell It Again! Read-Aloud Anthology* for Taking Care of the Earth, Instructional Masters 3B-1, 5B-1, 6B-1, and DA-1 are used for this purpose. Use the following *Tens Conversion Chart* to convert a raw score on each assessment into a Tens score.

Tens Conversion Chart

Number of Questions	Number Correct																															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	0	10																													
2	0	5	10																												
3	0	3	7	10																											
4	0	3	5	8	10																										
5	0	2	4	6	8	10																									
6	0	2	3	5	7	8	10																								
7	0	1	3	4	6	7	9	10																							
8	0	1	3	4	5	6	8	9	10																						
9	0	1	2	3	4	6	7	8	9	10																					
10	0	1	2	3	4	5	6	7	8	9	10																				
11	0	1	2	3	4	5	5	6	7	8	9	10																			
12	0	1	2	3	3	4	5	6	7	8	8	9	10																		
13	0	1	2	2	3	4	5	5	6	7	8	8	9	10																	
14	0	1	1	2	3	4	4	5	6	6	7	8	9	9	10																
15	0	1	1	2	3	3	4	5	5	6	7	7	8	9	9	10															
16	0	1	1	2	3	3	4	4	5	6	6	7	8	8	9	9	10														
17	0	1	1	2	2	3	4	4	5	5	6	6	7	8	8	9	9	10													
18	0	1	1	2	2	3	3	4	4	5	6	6	7	7	8	8	9	9	10												
19	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10											
20	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10										
21	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10									
22	0	0	1	1	2	2	3	3	4	4	5	5	5	6	6	7	7	8	8	9	9	10	10								
23	0	0	1	1	2	2	3	3	3	4	4	5	5	6	6	7	7	7	8	8	9	9	10	10							
24	0	0	1	1	2	2	3	3	3	4	4	5	5	5	6	6	7	7	8	8	8	9	9	10	10						
25	0	0	1	1	2	2	2	3	3	4	4	4	5	5	6	6	6	7	7	8	8	8	9	9	10	10					
26	0	0	1	1	2	2	2	3	3	3	4	4	5	5	5	6	6	7	7	7	8	8	8	9	9	10	10				
27	0	0	1	1	1	2	2	3	3	3	4	4	4	5	5	6	6	6	7	7	7	8	8	9	9	9	10	10			
28	0	0	1	1	1	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	8	8	8	9	9	9	10	10		
29	0	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	6	6	6	7	7	7	8	8	8	9	9	9	10	10	
30	0	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9	10	10

Simply find the number of correct answers the student produced along the top of the chart and the number of total questions on the worksheet or activity along the left side. Then find the cell where the column and the row converge. This indicates the Tens score. By using the *Tens Conversion Chart,* you can easily convert any raw score, from 0 to 30, into a Tens score. You may choose to use the Tens Recording Chart which is at the end of the appendix.

Recommended Trade Books for Taking Care of the Earth

If you recommend that parents read aloud with their child each night, you may wish to suggest that they choose titles from this trade book list to reinforce the domain concepts.

1. *And Still the Turtle Watched,* by Sheila MacGill-Callahan and Barry Moser (Puffin, 1996) ISBN 0140558365
2. *Garbage and Recycling (Young Discoverers: Environmental Facts and Experiments),* by Rosie Harlow and Sally Morgan (Kingfisher, 2002) ISBN 075345503X
3. *I Am Water (Hello Reader! Level 1 Science),* by Jean Marzollo and Judith Moffatt (Cartwheel, 1996) ISBN 0590265873
4. *It's Earth Day! (Little Critter),* by Mercer Mayer (HarperFestival, 2008) ISBN 0060539593
5. *Just a Dream,* by Chris Van Allsburg (Houghton Mifflin, 1990) ISBN 0395533082
6. *The Lorax,* by Dr. Seuss (Random House Books for Young Readers, 1971) ISBN 0394823370
7. *Rachel: The Story of Rachel Carson,* by Amy Ehrlich and Wendell Minor (Voyager Books, 2008) ISBN 0152063242
8. *Recycle! A Handbook for Kids,* by Gail Gibbons (Little, Brown Young Readers, 1996) ISBN 0316309435
9. *A River Ran Wild: An Environmental History,* by Lynne Cherry (Voyager Books, 2002) ISBN 0152163727
10. *The Three R's: Reduce, Reuse, Recycle (What Do You Know About? Books),* by Nuria Roca and Rosa M. Curto (Barron's Education Series, 2007) ISBN 0764135813
11. *The Wartville Wizard,* by Don Madden (Aladdin, 1993) ISBN 0689716672
12. *Where Does the Garbage Go?,* by Paul Showers and Randy Chewning (HarperTrophy, 1994) ISBN 0064451143
13. *Why Should I Save Water? (Why Should I?),* by Jen Green and Mike Gordon (Barron's Educational Series, 2005) ISBN 0764131575
14. *The Wump World,* by Bill Peet (Sandpiper, 1981) ISBN 0395311292

1 Introducing the Earth

Lesson Objectives

Core Content Objectives

Students will:

- Understand that Earth is composed of land, water, and air
- Identify examples of land, water, and air from their own environments
- Understand that humans, plants, and animals depend on Earth's land, water, and air to live
- Understand why people have a special responsibility to take care of the earth

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud (L.K.10)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Describe illustrations (L.K.13)

- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Distinguish fantasy from realistic text (L.K.22)
- Learn new words from read-alouds and discussions (L.K.24)
- With assistance, categorize and organize facts and information within a given domain (L.K.32)

Core Vocabulary

creatures, *n.* Living beings, such as animals and/or people
Example: Deer, raccoons, and squirrels are just a few of the many different kinds of creatures who live in the forest.
Variation(s): creature

Earth, *n.* The planet that we live on; the world
Example: The planet Earth is made up of land, water, and air.
Variation(s): none

outer space, *n.* The area beyond Earth
Example: The moon and the stars are in outer space.
Variation(s): none

responsibility, *n.* Something that a person is expected to do
Example: Making my bed is my responsibility.
Variation(s): responsibilities

surface, *n.* The outside layer of something
Example: The surface of a marble is smooth.
Variation(s): surfaces

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**Domain Introduction**	globe	10
	Know-Wonder-Learn Chart	chart paper	
	Introduce the Narrator	Earth Hat	
	Purpose for Listening		
Presenting the Read-Aloud	**Introducing the Earth**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Responsibility		5
 **Complete Remainder of the Lesson Later in the Day**			
Extensions	**Know-Wonder-Learn Chart**	KWL Chart	15
Take-Home Material	**Parent Letter**	Instructional Master 1B-1	

1A Introducing the Earth

Introducing the Read-Aloud

10 minutes

Domain Introduction

Tell students that all the people in all the towns and cities they have ever heard about live on the same planet. Ask students if they can name the planet on which they live. Then show students a globe. Tell them that the globe represents Earth. Explain that all the people, animals, trees, and flowers live together on planet Earth.

Tell students that over the next couple of weeks they will be learning more about Earth and how to take care of our planet. Explain to students that because we all live on Earth together, we need to care for the earth. We need to keep our planet clean and healthy, just as we would keep ourselves clean and healthy. Ask students: "What can happen if you play in a mud puddle? You get dirty and you have to clean up!" Explain to them that it is the same with the earth. If Earth becomes dirty, or polluted, it will be harder for plants, animals, and people to live here. We have to find a way to clean up the pollution.

Know-Wonder-Learn Chart

Make a KWL (**K**now-**W**onder-**L**earn) chart to introduce the new domain, Taking Care of the Earth. Remember to complete the chart on large chart paper, so that you can add to the chart as students listen to multiple read-alouds.

Ask the students what they already know about Earth and how to take care of the planet. Prior to recording the students' responses, point out that you are going to write down what they say, but that they are not expected to read what you write because they are still learning the rules for decoding words. Emphasize that you are writing what they say so that you don't forget, and tell them that you will read the chart to them.

As students respond, repeat and expand upon each response using richer and more complex language, including, if possible,

any domain vocabulary. Record students' responses under the 'K' of the KWL chart (What I Know). If a student's response includes inaccurate, factual information, record it nonetheless and acknowledge the response by saying something like, "So you think that there's nothing we can do to help the planet? We'll have to listen very carefully to our read-aloud and find out if that's true!"

Then ask, "What do you wonder about or want to know about planet Earth and how to take care of it?" You might need to prompt them by asking questions about what they think a healthy planet looks like, what littering does to the earth, etc. Record these responses under the 'W' on the KWL chart (What I Wonder or Want to Know). Tell your students that after they have listened to some of the read-alouds in this domain, they will have a chance to share what they have learned. These answers will be listed in the 'L' (What I Have Learned) portion of the chart. Ask the students to keep the list of 'W' questions in mind as they listen to the upcoming read-alouds to see if they can find some of the answers as the read-alouds are shared.

Introduce the Narrator

Teachers are invited to wear the Earth Hat. (See Introduction, p. v.) This is not simply a novelty. It will get the students' attention.

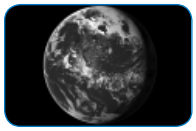
Ask students if they think planet Earth can talk. Tell them that for the next couple of weeks, you'll be asking them to use their imaginations and pretend that the earth is actually able to talk. In other words, they should pretend that the earth is reading to them, even though that could not happen in real life.

Note: Wear the Earth Hat only during read-alouds in which the Earth is narrating (all lessons except lesson 7). This will signal to students that the "good old Earth" (the first-person narrator of this domain) is speaking to them.

Purpose for Listening

Tell students to listen to the read-aloud to find out what the earth is made of. Ask them to try to remember the three substances, or things, that make up the earth and why they are important to people.

Presenting the Read-Aloud — *10 minutes*



Introducing the Earth

Show image 1A-1: Earth from outer space [1]

1 Describe what you see in the picture.

Hi, kids. It's me, **Earth.** Some people call me *the world,* some call me *the planet,* and some even call me *Mother Earth.* But you can just call me *good old Earth.*

This is what I look like from **outer space,** from somewhere beyond our friend the moon.[2] From outer space, I guess I look pretty small. You can see that I am mostly blue. That's because I'm mostly covered with water. But you can also see lots of green and brown. Those are the colors of the land where people live. Of course, I am also covered by a nice blanket of air. You can't see the air, but you can see the white clouds that float around in it.

2 The moon, stars, and sun are all objects in outer space.

I've been here a long time, and I've seen many things. I just want to tell you that I am truly amazed by you people, and I'm glad you're here with me. You do so many amazing things.

Show image 1A-2: A waterfront town

I like your farms and your nice little towns. I like the great big cities you've built. They're incredible! I don't even mind the roads you've built all over me. I like to feel your boats floating on my oceans, seas, and lakes, and your airplanes kind of tickle a little as they zoom through my skies.

Show image 1A-3: Happy kids

Most of all, I like you kids. I like to feel your little feet running around, I like to hear you laughing, and I especially hope that you enjoy and appreciate all the beautiful and amazing places on my **surface.**[3] Let's take a look at some of these places together.

3 The surface of the earth is its outer layer of land, or the ground.

Show image 1A-4: Forest, water, and mountains

People live on land, but you are not the only living things that depend on, or need, the land. Animals, plants, and people all need to share the land with each other.

The flowers and grasses add such beauty to my surface. Of course, the flowers, trees, and grasses aren't there just to be pretty. They're important for all the **creatures** that live here: from the squirrels and birds that live in the trees, to the bees that buzz around drinking nectar from the flowers, to the animals that eat the grass.

Show image 1A-5: River

It's the same with rivers and other bodies of water, such as lakes and streams. They're nice to look at, and nice to swim around in or paddle down in your canoe. But they're also home to many creatures, from fish, to snakes and turtles, to snails. And their waters are important in many ways for you people, too. [4]

4 Can you think of ways that water is important to people? How do people use water?

Show image 1A-6: Blue sky

Here is a photo of the beautiful sky. On this day, the sun is shining brightly, and a few puffy white clouds are floating through the air. Every time you look up in the sky from now on, I want you to think of the air that's there. You'll want to listen very carefully when I tell you about keeping the air and skies clean. After all, the air is what you breathe every few seconds, every single day. [5]

5 Inhale and exhale deeply. You are breathing air in and out, even though you can't see the air.

Show image 1A-7: Child

People are the most intelligent creatures here on Earth. You're the ones who built big cities and invented cars and computers. You make medicines for people and animals, and you have schools and airplanes and many other important things.

You people are truly amazing. You can do many, many things that no other living creature here on Earth can do. That gives you extra **responsibility:** Because you're the smartest, all living things depend on you to take care of me. [6] You have to share good old Earth; you're in it together.

6 So it's your job; you're expected to take care of the earth.

Show image 1A-8: Sunrise

I want people to truly enjoy living here. Every morning when you wake up and see the sunrise, I want you to say, "Great! It's the start of another wonderful day on beautiful Earth!" To make sure that

happens, I need to teach you about something I like to call "Taking Care of the Earth." I really need your help making sure that the air, water, and land stay clean so that *you,* and all other things living here, can be safe, healthy, and happy. And you kids can really do a lot to help out (and to make sure all the grown-ups do their part, too). So I hope you'll listen carefully over the next couple of weeks, because I have a lot of important things to share with you.

Discussing the Read-Aloud **15** *minutes*

Comprehension Questions (10 minutes)

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses, using richer and more complex language. It is highly recommended that you ask students to answer in complete sentences by asking them to restate the question in their responses.

1. What are some other names for Earth? (the world, the planet, Mother Earth)
2. What three things make up the earth? (land, water, air)
3. Give examples of where you find water in nature on the earth. (oceans, lakes, ponds, rivers, streams)
4. Why are land, water, and air important to people? (People need land to live on, water to drink, and air to breathe.)
5. Why do people have special responsibilities to take care of Earth? (We are the smartest creatures on Earth, and other living things depend on us.)

I am going to ask a question. I will give you a minute to think about the question. Then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

6. *Think Pair Share:* Do you think that everything that happens in this read-aloud could really happen, or is it all pretend, or

fantasy? Or, is some of it real and some of it pretend? How do you know? (Part of the read-aloud is fantasy because the earth cannot talk or feel things. What the earth is describing, however—how we depend on Earth's land, water, and air to survive—is real.)

Word Work: Responsibility (5 minutes)

1. In this read-aloud, we heard that we all have a *responsibility* to take care of the earth.
2. Say the word *responsibility* with me.
3. A responsibility is something that a person is expected to do.
4. Parents have a responsibility to care for their children, or a person may have a responsibility to do the dishes after dinner.
5. Tell about a responsibility you have. Try to use the word *responsibility* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "I have a responsibility to . . .")
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: If any of the things I say is a responsibility of yours, say, "my responsibility." If any of the things I say is not a responsibility of yours, say, "not my responsibility." (Answers may vary for all.)

1. setting the table
2. picking up your toys
3. driving yourself to school
4. making your dinner
5. washing your laundry or dirty clothes
6. taking care of a pet
7. brushing your teeth
8. making your bed

Complete Remainder of the Lesson Later in the Day

1B Introducing the Earth

Extensions

15 minutes

Know-Wonder-Learn Chart

Review the 'K' and 'W' columns of the KWL Chart created earlier. Ask students what they learned in the read-aloud and record their responses in the 'L' column. Reread small sections of the text aloud, as necessary, to help students check the accuracy of their responses. Prior to recording the students' responses, point out that you are going to write down what they say, but that they are not expected to be able to read what you write because they are still learning all the rules for decoding. Emphasize that you are writing what they say so that you don't forget, and tell them that you will read the chart to them.

As students respond, refer back to both the 'K' and 'W' columns of the chart to see if, and how, what they have learned relates to what was written in either the 'K' or 'W' column. In the event that something newly learned in the 'L' column contradicts something that was recorded earlier in the 'K' column, this should be discussed. For example, "Earlier today, when we were talking about what we knew, we said that there wasn't anything we can do to help the planet. What do you think now?" (Then, cross out the inaccurate information in the 'K' column). Remember to save the chart paper, which will be used throughout this domain.

Parent Letter

Send home Instructional Master 1B-1.

2 Garbage

Lesson Objectives

Core Content Objectives

Students will:

- Understand that humans generate large amounts of garbage, which must be disposed of
- Sequence what happens to garbage from its creation to being dumped in the landfill
- Explain what a landfill is and why it is a dangerous place
- Evaluate whether landfills are an adequate solution to the problem of garbage

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Use language to express spatial and temporal relationships (*up, down, before, after, etc.*) (L.K.8)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to predictions (L.K.12)

- Describe illustrations (L.K.13)
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Learn new words from read-alouds and discussions (L.K.24)
- Retell important facts and information from a read-aloud (L.K.30)
- Sequence four to six pictures illustrating events from a nonfiction read-aloud (L.K.31)

Core Vocabulary

decompose, *v.* To rot and fall apart into tiny pieces
Example: Fallen apples decompose and become part of the soil.
Variation(s): decomposes, decomposed, decomposing

dumpster, *n.* A very large trash container, usually located near large buildings, such as apartment buildings, stores, schools, restaurants, etc.
Example: We throw our bags of garbage into the dumpster next to our apartment building.
Variation(s): dumpsters

hazardous, *adj.* Very dangerous; able to hurt or harm people
Example: The man wore a mask to avoid breathing the hazardous gas.
Variation(s): none

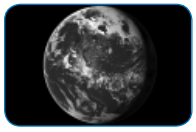
landfill, *n.* A place where large amounts of garbage are dumped and/or buried
Example: The workers used a bulldozer to dump all of the town's trash into the landfill.
Variation(s): landfills

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Do We Already Know?**		10
	Making Predictions About the Read-Aloud		
	Purpose for Listening		
Presenting the Read-Aloud	**Garbage**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Hazardous		5
 **Complete Remainder of the Lesson Later in the Day**			
Extensions	**Image Card Review**	Image Cards 1–7 chart paper, chalkboard, or whiteboard	15

2A Garbage

Introducing the Read-Aloud

***10** minutes*



What Do We Already Know?

Show image 1A-1: Earth from outer space

Ask students to identify what this photograph shows. Remind students that the planet Earth is made up of three substances. Point to the brown and green areas shown on the image of the earth and prompt students to identify these areas as land. Point to the blue areas and prompt students to identify these areas as oceans or water. Finally, point to the clouds and remind students that these are clouds; ask them what we call the substance that surrounds the earth in which the clouds are floating. Now, assist students in identifying why these substances are important and how living things use them.

Making Predictions About the Read-Aloud

Tell students that the title for today's read-aloud is "Garbage." Ask, "What do you think garbage has to do with taking care of the earth?" Point to a trash can in your classroom and ask students to make predictions about what they think happens to this garbage after it is thrown out in this trash can. Ask, "Where do you think the garbage goes?" Tell students to pay attention to the read-aloud to see if their predictions are correct.

Purpose for Listening

Tell students to listen carefully so that they can tell you exactly what happens to trash after you throw it in the garbage can.

Note: Remember to put on your Earth Hat to read the read-aloud and remind students that in the read-aloud, Earth will be pretending to "talk" to them.

Presenting the Read-Aloud — *10 minutes*

Garbage

Show image 2A-1: Earth as seen from the moon

Hi, good old Earth here again. I thought I'd start by showing you a different view of me. This is what I look like from the moon. Pretty amazing, huh? I look really small from way up there. It's hard to believe that all of you people—along with your cities, farms, schools, stores, cars, and houses—fit on good old Earth. But you do!

Show image 2A-2: Garbage

Today, I'm going to talk to you about something very important: trash. That's right, stinky, ugly trash. Some people also call it garbage, waste, junk, or rubbish. Whatever you call it, it's all the same: stuff you've used and don't need anymore. Trash is probably not something you think about a lot, but you deal with it every day, and so do I. There's an awful lot of trash on me, and—not to make you feel bad or anything—all of that trash comes from people.

Show image 2A-3: Birthday party

Imagine that you go to a birthday party, and they give you some cake and ice cream. And let's say they serve it all on little paper plates, and they give you a plastic spoon to eat with. You gobble up all the food, and then what do you do with the plate and spoon? Do you push them under the sofa and forget about them? Do you open up the window and throw them in the backyard? I hope not!

Show image 2A-4: Trash can

Instead, you put the plate and spoon in the trash can. A trash can is sometimes called a garbage can or a wastebasket. Whatever you call it, it's the place where you throw away your trash.

Show image 2A-5: Taking out the trash

What is this man doing? He's taking out the trash. I'm guessing this trash can is in his kitchen. Where else do you have trash cans

in your house? Some people have one in every room. Lots of people keep one in the bathroom. Is there one in your classroom? How about your school's cafeteria? Which one is bigger?

So, why is this man taking out the trash? Because the trash bag is full. But then what does he do with it? [1]

1 Where do you think the trash goes next?

Show image 2A-6: Dumpster

He'll probably take it outside to a bigger trash can, or maybe to a **dumpster.** [2]

2 A dumpster is a large trash container that may be next to large buildings. Do you have a dumpster near where you live, or do you just have a large trash can outdoors?

Once people have thrown their trash bags in a dumpster or an outdoor trash can, most people stop thinking about it. Maybe they say to themselves, "Good, now that stinky trash is out of sight, out of mind." That means they stop thinking about the trash because they can't see it anymore. But I don't stop thinking about it, and you shouldn't either.

Show image 2A-7: Garbage truck

About once a week, garbage collectors come along in a big garbage truck, pick up the trash can or dumpster, and dump its contents into the back of the truck. And then what do they do? Do they park the truck on the edge of town and leave it there? Do they launch the truck into outer space? Do they call up a magician and ask him to come and make the truck disappear? [3]

3 Where do you think the garbage truck takes the trash?

Show image 2A-8: Landfill

They take it to the nearest **landfill.** Some people call the landfill a dump, because that's what you do: You dump your trash there. However, I—good old Earth—prefer to call it the *landfill* to remind you that all you're doing is burying your trash inside me. [4]

4 A landfill is a place where garbage is dumped and buried.

This might look like a lot of trash, but trust me when I say that what you see in this picture is just a teeny, tiny bit of all the trash people around the world make every single day!

Show image 2A-9: Bulldozer

Once the piles of trash in the landfill are big enough, bulldozers move in and push dirt on top of the trash.

Why bury the trash? It goes back to the "out of sight, out of mind" saying. If the trash is underground, people don't have to see it, think about it, or smell it. Your town or neighborhood is a much safer, healthier place to live in because all that garbage is buried underground away from where you live and play. Trust me, though, just because the garbage is buried doesn't mean it's gone—at least not for a long, long time.

Show image 2A-10: Buried garbage, semi-decayed landfill

After it's buried, some of the garbage starts to rot, or **decompose.** That means the trash breaks down into smaller and smaller pieces and becomes part of the soil underground.

Trash that was food usually decomposes pretty quickly. The paper plate from the birthday party will decompose, too, but it will take longer than food. It may take several years for the paper plate to decompose. What about the plastic spoon? Unfortunately, plastic doesn't rot like food and paper. So, that spoon may lie around for hundreds or even thousands of years before it ever rots and becomes part of the earth again.

Show image 2A-11: Closed landfill

Every landfill gets filled up eventually and a new landfill is needed so you can dump your trash. This picture shows an old landfill that has been closed. Most of the garbage is buried and slowly decomposing underground. [5]

5 Why do you think more garbage can't be dumped on this landfill?

As you can see, plants can start to grow on the land again, and some animals may even move back in and make their homes there. But landfills are also dangerous. So much garbage underground means that there are probably **hazardous** [6] gases and chemicals in the area. The bad gases and chemicals go back into the soil and air, and can even get into the water supply underground. This hurts the living things that live on Earth, breathe the air, and drink the water. Using this land again costs a lot of money and requires a lot of hard work and time. In most cases, land like this will remain a dangerous place for many, many years

6 or dangerous

to come. The trash you drop in the trash can today is out of sight, but it shouldn't be out of mind. [7]

7 (Remind students about their original predictions about trash.) So, where does the garbage go? What does the amount of garbage that we throw away have to do with taking care of the earth? Is that what you thought before you heard the read-aloud?

Discussing the Read-Aloud *15 minutes*

Comprehension Questions (10 minutes)

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses, using richer and more complex language. It is highly recommended that you ask students to answer in complete sentences by asking them to restate the question in their responses.

1. What are some other names for trash? (garbage, waste, junk, rubbish)
2. Who creates all the trash on Earth? (people)
3. Describe what happens to a piece of garbage after you throw it away. (After you throw away garbage in a trash can inside, you empty it either into a larger outdoor garbage can or a dumpster. After that, the trash is loaded into a garbage truck and then dumped into a landfill.)
4. Imagine you are standing near a landfill. Describe what you might see and smell. (The landfill looks messy and dirty, and it does not smell good.)
5. Why is a landfill a dangerous place? (The decomposing garbage gives off hazardous gases and chemicals that go into the land, water, and air. These gases and chemicals can be very dangerous, making all living things sick.)
6. Why is it important to think about where our garbage goes? (Too much garbage makes Earth a dirtier, less healthy place.)

I am going to ask a question. I will give you a minute to think about the question. Then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

7. *Think Pair Share:* Do you think landfills are a good solution to all the garbage people create? Why or why not? (No, a landfill is a dangerous thing for animals, plants, and people to live beside. We need to find a better way.)

Word Work: Hazardous (5 minutes)

1. In the read-aloud today, we heard about the *hazardous* gases and chemicals that come from landfills.
2. Say the word *hazardous* with me.
3. *Hazardous* means very dangerous.
4. Crossing the street without looking both ways could be very hazardous because you might get hit by a car.
5. Tell about something that is hazardous to people. Try to use the word *hazardous* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "One thing that is hazardous to people is . . .")
6. What's the word we've been talking about?

Use a *Synonyms and Antonyms* activity for follow-up. Directions: The opposite of *hazardous* is *safe.* If any of the things I say are hazardous, say, "hazardous." If any of things I say are safe, say, "safe."

1. not wearing a coat during winter weather (hazardous)
2. crossing the street when the crossing guard tells you to (safe)
3. wearing a seat belt when you are in a car (safe)
4. eating something you are allergic to (hazardous)

Complete Remainder of the Lesson Later in the Day

2B Garbage

Extensions

15 *minutes*

Image Card Review

Display Image Cards 1–7 in random order, from left to right on a chalkboard ledge or taped to a whiteboard or chart paper. Ask students to tell you which card shows the very first thing that happens when there is garbage, and reposition this card to the far left as the "first step." Continue with the remaining cards, having students tell you the correct sequence of events, so you can rearrange the cards in the correct order.

With the cards now in the correct order, point to them one at a time and ask students to explain what is happening in each picture. Help them create a continuous narrative that follows the trash from its creation to its burial at a landfill. As the students discuss each image, remember to repeat and expand upon each response using richer and more complex language, including, if possible, any read-aloud vocabulary. Also, encourage the use of temporal vocabulary to help in introducing and sequencing events and ideas: *first, then, next, later, finally,* etc.

3 Natural Resources

Lesson Objectives

Core Content Objectives

Students will:

- Understand that natural resources are things found in nature that are valuable and of great importance to people
- Identify key natural resources and describe how people use them

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)

- Learn new words from read-alouds and discussions (L.K.24)

Core Vocabulary

conserve, *v.* To protect something; to save something
Example: My dad asked me to please take shorter showers to conserve water.
Variation(s): conserves, conserved, conserving

decayed, *adj.* Rotten; decomposed
Example: The decayed trash in the landfill smelled awful.
Variation(s): none

natural resources, *n.* Things found in nature, such as land, water, and air, that are valuable and of great importance to people
Example: One example of Earth's natural resources is trees, which are used to make lumber to build houses and also to make paper.
Variation(s): natural resource

oxygen, *n.* The part of the air we breathe that is needed to keep people alive
Example: We need to breathe in enough oxygen to stay healthy.
Variation(s): none

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Do We Already Know?**	KWL Chart	10
	Essential Background Information or Terms		
	Purpose for Listening		
Presenting the Read-Aloud	**Natural Resources**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Conserve		5
Complete Remainder of the Lesson Later in the Day			
Extensions	**Natural Resources**	Instructional Master 3B-1	15

3A Natural Resources

Introducing the Read-Aloud

***10** minutes*

What Do We Already Know?

Use the KWL chart started in the first lesson to review what students know and have learned thus far about the earth. Remind students that in the previous read-aloud, they learned what happens to all of the things we throw away as garbage. Ask students to tell you what they learned about trash, and add their comments to the 'L' column of the chart.

Essential Background Information or Terms

Tell students that today they are going to hear a read-aloud about the natural resources that come from Earth. Explain that natural resources are things found in nature, such as land, water, and air, that are valuable and of great importance to people. People use natural resources everyday. For example, people use water to drink, to wash things, and to make other things we need like medicine.

Purpose for Listening

Tell students to listen to the read-aloud to find out more about natural resources and the different ways that people use them.

Note: Remember to put on your Earth Hat to present the read-aloud and remind students that in the read-aloud, Earth will be pretending to "talk" to them.

Presenting the Read-Aloud — *10 minutes*

Natural Resources

Show image 3A-1: Earth

Earth here again. I always like to start by showing you a picture of me, just to remind you how beautiful, amazing, and magnificent I am! Everything people need in order to live happy, healthy lives is available right here on good old Earth.

What continents can you can see in this picture? [1] You can see Europe, Africa, and a little bit of Asia. You can always spot Europe because of the shape of Italy. That's the one that looks like a boot. [2]

See the big brown area at the bottom of the picture? That's North Africa. It is almost completely covered by the Sahara Desert, which is the biggest desert and one of the driest, hottest places on Earth. [3]

1 The continents are the seven largest pieces of land on Earth.

2 (Point out Africa, Asia, Europe, and Italy in the picture.)

3 (Point out the Sahara Desert to students.)

Show image 3A-2: Desert sand dunes

You won't find too many people living in the Sahara Desert, but that does not mean that *nobody* lives there. It is *possible* to live in the desert. But there are very few **natural resources,** like water, in the desert, which makes it very difficult for people to live there.

Show image 3A-3: Forest and river

Let's talk a bit more about natural resources for a minute. Natural resources are things you can find in nature—outside, underground, underwater, or even in the sky. Natural resources are not made by people. Natural resources are part of me, good old Earth.

There are two natural resources in this picture. Can you guess what they are? Hint: One is wet, the other is wood. [4] Water and trees are two examples of natural resources that are very important and valuable to people.

4 (Pause for students to respond.)

Show image 3A-4: Child drinking from water fountain

As I just said, one natural resource is water. Of course, one way we use water is to drink it just as it is. Other things we drink like juice, soda, and tea also contain water. How else does water act as a resource? We use water for baths, washing dishes, brushing our teeth, cooking, and watering the garden where we grow food. The list goes on and on.

Show image 3A-5: Tree products

Trees are natural resources, too. This illustration shows just a few things that come from or are made out of trees.[5] What else is made from trees? Wood is probably the first thing that jumps into your mind—wood for houses, furniture, pencils, baseball bats, and a million other things.

5 (Help students identify the various objects pictured.)

Paper is also made from trees. Everything made out of paper comes from trees, including your notebook, napkins, cereal and other cardboard boxes, and the posters on the wall in your classroom.

Show image 3A-6: Sky through trees

This is a pretty picture of trees, but I actually wanted to point out something else: the blue sky above the trees. Trees are also important because of their connection to another natural resource in the sky: air. You really can't see air, but it is all around you and everything else on Earth.

Did you know that trees actually help keep the air clean and fresh for you to breathe? Amazing, right? All plants help clean the air, but trees are the biggest and best air-cleaners. They take in dirty air and put out nice fresh **oxygen,** which is the gas your body needs to breathe in to stay alive. The more trees there are, the cleaner the air will be. If the air is too dirty, though, even the trees will get sick.

There are other, important natural resources, too. I am going to zip through these pretty quickly though, just to give you an idea of the kinds of natural resources you can find scattered around, on,

or inside good old Earth. But don't worry—I am going to tell you more about them over the next few days.

Show image 3A-7: Soil

This picture was taken on a farm. What do you see? You can call it dirt, if you want, but farmers call it soil. Soil is a natural resource and it's where farmers plant their crops. Soil is made-up partly of the **decayed** or rotten parts of dead plants and creatures. Worms help to turn the dead things into new soil. It takes about one thousand years to make one inch of good soil.[6] Without soil, you wouldn't have plants or vegetables!

6 (Gesture with your fingers to illustrate one inch.)

Show image 3A-8: School of fish

Here is a school of fish.[7] Fish are important natural resources too. Why? Because some people and animals eat them, that's why! In fact, some animals eat nothing but fish!

7 A school is another name for a group of fish.

Show image 3A-9: Coal and oil

Do you have any idea what these are?[8] The one on the left is called coal. The one on the right is oil. Coal and oil are natural resources that come from inside the earth. Coal and oil can be used to make energy, electricity, or fuel to make cars run.

8 (Point to the illustrations.)

So, now you know what *natural* resources are! And I'll tell you this: you people sure are clever because you've figured out how to turn all these natural resources—water, trees, air, and the soil on land—into many things that you need.

Over the next several days, I'll teach you how to **conserve** these natural resources as a way to help take care of the earth.[9] I'll also teach you that using some natural resources too much can actually hurt the earth, and none of us want that, right?

9 To *conserve* means to protect or save.

Discussing the Read-Aloud *15 minutes*

Comprehension Questions (10 minutes)

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses, using richer and more complex language. It is highly recommended that you ask students to answer in complete sentences by asking them to restate the question in their responses.

1. What is a natural resource? (something in nature that is important to people and which they can use to make other things)
2. Name some examples of natural resources that you heard about. (soil/land, trees, water, air, coal, oil, fish)
3. How do people use some of these natural resources? (They use trees to make paper, cardboard, and wood. They use water to take baths and to water gardens. They breathe the air.)
4. How do trees and plants help keep the air clean? (They take in dirty air and give off clean air.)
5. Name two natural resources that can be used to make energy and fuel. (coal and oil)

I am going to ask a question. I will give you a minute to think about the question. Then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

6. *Think Pair Share:* What do you think would happen if there was no more clean water on Earth? (Answers may vary.)

Word Work: Conserve (5 minutes)

1. In the read-aloud today, we heard that it is important to *conserve* natural resources.
2. Say the word *conserve* with me.
3. To conserve is to protect or save something, usually something in nature or a natural resource.
4. Someone might conserve water by turning off the sprinklers on rainy days, or someone might conserve nature by protecting natural land and not building on it.
5. Tell about something that you think is important to conserve. Try to use the word *conserve* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "It is important to conserve ___.")
6. What's the word we've been talking about?

Use a *Synonyms and Antonyms* activity for follow-up. Directions: The opposite of *conserve* is *waste.* If any of the things I say is an example of saving something, say, "conserve." If any of the things I say is an example of wasting something, say, "waste."

1. letting the water run in the sink for too long (waste)
2. using three paper towels to clean something up when you only need one (waste)
3. taking a short shower (conserve)
4. leaving the television on when you are not watching it (waste)
5. turning off the lights after everyone has left a room (conserve)

Complete Remainder of the Lesson Later in the Day

3B Natural Resources

Extensions

15 *minutes*

10 Natural Resources (Instructional Master 3B–1)

Remind students that natural resources are materials that come from nature and can be used to make many things. Point out a few items in the classroom and tell what natural resource the item was made from. For example, pick up a pencil and say, "This pencil is made of wood. Wood comes from trees. So, this pencil is made from trees, a natural resource."

Have the students look at Instructional Master 3B-1. Explain that the four pictures at the top are pictures of natural resources. Point out that each natural resource has been assigned a letter. Read the names of the resources to students as you point to each resource. Point out that below the resources are pictures of things made from these natural resources or ways the natural resources are used. Each has a write-on line below it. Tell students to fill in the letter for the natural resource that was used to make each item or do each activity. Tell students that the first one has already been done for them.

After you have given students enough time to complete the Instructional Master, go over the answers with the students. If there are incorrect answers, review the thinking process that led you to come to the correct answer. For example, in picture number 3, light switch, you could say: "I know that coal is sometimes used to make electricty. So the natural resource being used is coal, which is letter 'C.'"

4 Reduce, Reuse, Recycle

Lesson Objectives

Core Content Objectives

Students will:

- Recognize the phrase "Reduce, reuse, recycle" and explain how doing these three things can help to conserve natural resources
- Identify the recycling symbol and understand that recycled materials are made from items that have already been used and otherwise would have been garbage

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Follow multi-step, oral directions (L.K.5)
- Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud (L.K.10)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Describe illustrations (L.K.13)
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)

- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds (L.K.18)
- Learn new words from read-alouds and discussions (L.K.24)
- Retell important facts and information from a read-aloud (L.K.30)

Core Vocabulary

action, *n.* Something you do
Example: The action she took by calling 9-1-1 helped save her brother's life.
Variation(s): actions

generate, *v.* To make; to create
Example: The bake sale will generate enough money to pay for the class trip.
Variation(s): generates, generated, generating

products, *n.* Things that are made
Example: Paper and cardboard are products made from trees.
Variation(s): product

recycle, *v.* To turn trash into something else to be used
Example: If I recycle my plastic bottle, it will be used to make something new, such as a plastic cup.
Variation(s): recycles, recycled, recycling

reduce, *v.* To use less of something
Example: I will reduce the amount of paper I use, and that will help save trees.
Variation(s): reduces, reduced, reducing

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**	Image Card 5	10
	Purpose for Listening		
Presenting the Read-Aloud	**Reduce, Reuse, Recycle**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Reduce		5
 **Complete Remainder of the Lesson Later in the Day**			
Extensions	**Interactive Illustrations**	drawing paper, drawing tools	15

4A Reduce, Reuse, Recycle

Introducing the Read-Aloud

***10** minutes*

What Have We Already Learned?

Review with students the concept of natural resources as things that come from nature (the earth) and are very important and valuable to people. Refer to images from the previous read-aloud as needed, and encourage students to give examples of natural resources.

Remind students that in "Garbage," the second read-aloud in this domain, they learned about the large amounts of garbage that are dumped and then buried in landfills. Show them Image Card 5 and remind them that sometimes landfills have to be closed because there is no more space for the garbage. Also remind them landfills can be dangerous places because of the hazardous gases and chemicals from the decaying trash that can get into the land, water, and air.

Now ask students, "Do you think there are any other things that can be done with garbage so that there are fewer and/or smaller landfills?" Remember to repeat and expand upon each response, using richer and more complex language, including, if possible, any read-aloud vocabulary. If a student's response includes inaccurate factual information, refer back to earlier read-alouds and/or illustrations to correct any misunderstandings.

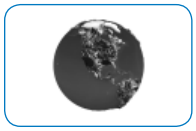
Tell students that today they are going to learn about three ways in which they can help create less garbage in landfills. Say, "We are going to learn how to reduce, reuse, and recycle." Have them repeat the words *reduce, reuse, recycle* after you.

Purpose for Listening

Tell students to listen for ways in which reducing, reusing, and recycling can help conserve or protect natural resources.

Note: Remember to put on your Earth Hat to present the read-aloud and remind students that in the read-aloud, Earth will be pretending to "talk" to them.

Presenting the Read-Aloud — *10 minutes*



Reduce, Reuse, Recycle

Show image 4A-1: Earth covered by trash [1]

So, kids, how much trash does good old Earth have to deal with every year? Let me ask that another way: How much trash do the people on good old Earth **generate,** or make, each year? Well, I'm not here to scold you or to try to make you feel guilty, but let's just say that people generate an extremely large amount of trash!

1 What do you think the artist of this picture is trying to say about the earth?

And, what's more, you're really the only creatures on the planet who generate any trash. You won't see a bear or a deer putting trash in a trash can. You won't see a monkey in the jungle using a paper napkin to wipe her face. And you probably won't see dogs and cats drinking their water out of plastic bottles. People make trash, so you're the ones who are responsible for taking care of it.

Show image 4A-2: Landfill

Every year, people in the United States generate billions of bags full of trash, plus all kinds of other trash that doesn't fit in bags, like old refrigerators and broken furniture. Imagine how much trash is generated worldwide!

Where does all that trash end up? Can you remember the name of the place in this picture? [2] It's a landfill. There is an incredible amount of trash buried in landfills, but it doesn't have to be this way.

2 (Pause for students to respond.)

Show image 4A-3: Green field and blue sky [3]

What do you think you can do to cut back on the amount of trash you throw away each year? After all, wouldn't you like to keep as much land as possible clean and green, like the place in this picture?

3 How is this picture different from the picture of the landfill?

Well, I'm about to teach you three important words. If you pay close attention and try to put some of my words into **action,** then you can really start to make an important difference in the world. [4]

4 Putting someone's words into action means acting on, or doing, what he or she says.

Those three words are ***reduce,*** *reuse,* and ***recycle.*** Say them a few times. [5]

5 (Have students repeat the words *reduce, reuse, and recycle.*)

Show image 4A-4: Paper towels on left, and paper towel dispenser on right

When you reduce the amount you use of something, you use less of it. What do you see in this picture?[6] On the left is a roll of paper towels. On the right is a paper towel dispenser like the one that you might have in the restroom at your school. Why do you think I am showing you these pictures? What does this have to do with the word *reduce*?

6 (Point to the illustration and have students describe what they see.)

Let's say you wash your hands in the restroom. Instead of grabbing a huge hunk of paper towels, try using just one.

By reducing the number of paper towels that you use, you can do two very important things. First, you will reduce the number of trees that get cut down to make paper towels, and that's a really good thing! Second, you will reduce the amount of trash that goes to a landfill.

So remember, whether you're using paper towels, toilet paper, or any other kind of paper: Reduce! Reduce! Reduce! Don't use more than you really need.

Show image 4A-5: Child's drawing

What does it mean to reuse something? It means that you use it again.

If you try, you can probably think of lots of ways to reuse paper. Do you like to draw? Before you ball up a piece of used paper and throw it away, flip it over and see if there's anything on the back.

If it's blank, draw a picture on the other side—like this nice one that a child drew of a house on a bright spring day. Then, take it home and hang it up on the refrigerator or bulletin board. Trust me, it will look great, and nobody will ever know or care that there is something on the other side.

Reducing and reusing are two important ways to make sure you don't send too much trash off to the landfill, but the very best way is by recycling.

Show image 4A-6: Recycling symbols

This is the recycling symbol.[7] The arrows in this symbol remind you that many things can actually be made into other things.

7 A symbol is a picture that represents a word or idea.

Show image 4A-7: Plastic bottle, recycling bin, and toy dinosaur

Recycling is sort of like reusing. When you recycle something, however, you turn it into something completely different. For example, your plastic juice bottle can be recycled and made into something else that is plastic. All the plastic that is collected in recycling bins is taken to factories where it is melted down into liquid plastic and then made into something else. So a plastic bottle that you put in the recycling bin might end up as part of a new plastic toy.

Show image 4A-8: Recycling bin

Now that you know what it looks like, you might start noticing the recycling symbol in more places. Often, you'll see these three arrows on bins like this one, so you'll know to put recyclable materials in it. A recycling bin is kind of like a trash can, except the things you put in here won't go to a landfill. They will be turned into other things.

Show image 4A-9: Common recyclable materials

Here is a picture of different things that most people use almost every day. All of these things can be recycled. Newspapers, mail, and cardboard boxes are all paper **products.** All of them come from trees, and all of them can be recycled instead of thrown into the trash can. Glass bottles and jars, aluminum soda cans, metal soup cans, and plastic bottles are all recyclable, too.

What's more, all of these things are made from natural resources, which means the more you recycle, the more natural resources you conserve![8]

8 What does it mean to conserve natural resources?

Show image 4A-10: Landfill

You might be wondering: Why does all that trash end up in landfills if most of it can actually be reused or recycled? That's a good question to ask, and it's one that you'll learn about later. For now, however, I just want you to make sure you remember those three important 'R' words: *reduce, reuse,* and *recycle.* Say them again![9]

9 (Have students chant these three words together a few more times.)

Discussing the Read-Aloud ***15*** *minutes*

Comprehension Questions (10 minutes)

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses, using richer and more complex language. It is highly recommended that you ask students to answer in complete sentences by asking them to restate the question in their responses.

1. Which creatures generate trash? (only people)
2. What are the three things you can do to conserve natural resources? (reduce, reuse, recycle)
3. Describe one way to reduce the amount you use of something. (I can use fewer paper towels in the bathroom.)
4. Describe one way to reuse something. (I can use the other side of a piece of paper to draw something.)

Show image 4A-6: Recycling symbols

5. What does this symbol mean? (recycle)
6. What are recycled materials? (things that have already been used, but are made into something new instead of being thrown away into the garbage)
7. What natural resource do you save if you reuse and recycle paper? (trees)

I am going to ask a question. I will give you a minute to think about the question. Then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

8. *Think Pair Share:* Why is it important to reduce, reuse, and recycle? (These three actions help to conserve natural resources; they reduce the amount of trash in landfills.)

Word Work: Reduce (5 minutes)

1. In the read-aloud today, we heard how people can *reduce* waste to help save natural resources.
2. Say the word *reduce* with me.
3. *Reduce* means to use less of something.
4. Someone might reduce the amount he drives his car in order to save gas, or someone might reduce the number of paper plates she uses and throws away in order to save trees.
5. Tell about one way you can reduce waste to help to save Earth's natural resources. Try to use the word *reduce* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "I can reduce waste by . . .")
6. What's the word we've been talking about?

Use a *Synonyms and Antonyms* activity for follow-up. Directions: The opposite of *reduce* is *increase.* If I am describing someone reducing waste, say, "reduces waste." If I am describing someone increasing waste, say, "increases waste."

1. turning off the water while brushing your teeth (reduces waste)
2. leaving a light on in an empty room (increases waste)
3. putting plastic bottles in a recycling bin (reduces waste)
4. writing one sentence on a piece of paper then throwing it away (increases waste)

Complete Remainder of the Lesson Later in the Day

4B Reduce, Reuse, Recycle

Extensions

***15** minutes*

Interactive Illustrations

Give every student a sheet of paper folded in half. Have each student draw a picture of one natural resource. Pair each student with a partner. Ask students to talk about their pictures with their partners for a minute and then trade illustrations. Using the second section of their partner's paper, have each student draw a product made from the natural resource that their partner drew. Then have the partner give advice for conserving the natural resource, for example, "Use both sides of a piece of paper."

Allow several students to share and discuss their own and their partner's illustrations. Have partners share the advice they have for reducing waste. As the students discuss the illustrations, remember to repeat and expand upon each response, using richer and more complex language, including, if possible, any read-aloud vocabulary.

5 Recycle! Recycle! Recycle!

Lesson Objectives

Core Content Objectives

Students will:

- Identify common recyclable materials, including glass, plastic, aluminum, cardboard, and paper
- Understand the process of recycling materials from home to recycling factory

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Learn and use appropriately common sayings and phrases such as "a place for everything, and everything in its place" (L.K.7)
- Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud (L.K.10)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Describe illustrations (L.K.13)
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)

- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Learn new words from read-alouds and discussions (L.K.24)

Core Vocabulary

aluminum, *n.* A type of metal used to make cans, foil, etc.
Example: Soda cans are made of aluminum, a metal that can be recycled.
Variation(s): none

furnace, *n.* A large oven in which a great amount of heat is produced
Example: The furnace in the glass factory is used to melt glass.
Variation(s): furnaces

solution, *n.* An answer to a problem
Example: The solution to large landfills is to reduce, reuse, and recycle the products we use.
Variation(s): solutions

sorted, *v.* Separated into different groups according to certain characteristics or features
Example: He sorted his crayons into reds, blues, yellows, and greens.
Variation(s): sort, sorts, sorting

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**	bin(s) of recyclable materials (aluminum drink cans, metal soup cans, plastic bottles, paper products)	10
	Purpose for Listening		
Presenting the Read-Aloud	**Recycle! Recycle! Recycle!**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Solution		5
 **Complete Remainder of the Lesson Later in the Day**			
Extensions	**Sayings and Phrases: A Place for Everything, and Everything in Its Place**		15
	Sorting Recyclable Items	Instructional Master 5B-1	

5A Recycle! Recycle! Recycle!

Introducing the Read-Aloud

***10** minutes*

What Have We Already Learned?

Remind students that in the previous read-aloud they learned three ways that they could help conserve natural resources. Ask students first to give examples of natural resources and then to identify the three strategies discussed for conserving these resources—"Reduce, reuse, and recycle." Remind students that the word *reduce* in this phrase is to remind them to try to use less or fewer things that come from natural resources. Ask students to give specific examples of what they can do to reduce their use of these resources. Next, review with students that the word *reuse* in the phrase is to remind them to use things over again; ask for examples. Finally, remind students that recycling involves putting something that ordinarily might have been thrown away into a recycling container so that it can be used to make something new.

Explain to students that when something is recycled, there is a process or series of steps that take place to turn the used material being recycled into something new. Tell students the first thing that must happen is that, instead of throwing the recyclable materials away in an ordinary trash can, people must put the recyclables aside and save them in a special container. Show students the recycling bin(s) you have brought to class and ask if they have ever seen bins that are similar either at home or school. Then, show some of the items in the bin(s) to provide examples of the types of materials that can be recycled. Ask students to name some recyclables and discuss whether they save any of these items either at home or at school. Remember to repeat and expand upon each response, using richer and more complex language, including, if possible, any read-aloud vocabulary.

Purpose for Listening

Tell students to listen carefully to the read-aloud so that they can explain the different steps that take place when something is recycled.

Note: Remember to put on your Earth Hat to present the read-aloud and remind students that in the read-aloud, Earth will be pretending to "talk" to them.

Presenting the Read-Aloud — *10 minutes*

Recycle! Recycle! Recycle!

Show image 5A-1: Recycling symbol superimposed on Earth [1]

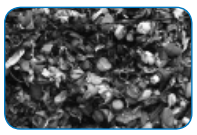
1 What do you think the artist is trying to say by placing the recycling symbol on top of Earth?

I asked an artist to make a picture with these green recycling arrows on top of me. I hope this will help you remember that recycling is very healthy for good old Earth. Recycling is so important that I have come back to tell you even more about it, just to make sure that you understand how much good you are doing when you recycle something. The very first step in the recycling process, though, is that, instead of throwing recyclable materials away in an ordinary trash can, you must put these things aside and save them in another container, like a recycling bin.

Show image 5A-2: Recycling center

Once you have saved a lot of things to be recycled, they need to be brought to a place called a recycling center. Sometimes people bring their own recyclables directly to the recycling center. In this picture you can see a place with several large bins of different colors. People can bring all their recyclable materials here, but everything has to go in the right place. Glass goes in one bin, cans in another, paper in another, and so on.

In some places, though, people do not have to go to the recycling center themselves. Instead, they can set out their recycling bins by the side of the road, just like they set out their garbage cans, and a special recycling truck comes by to empty the bins and to take the recyclables to the recycling center.



Show image 5A-3: Plastic bottle caps to be recycled

I don't know about you, but I think recycling is very interesting. Here's a colorful recycling picture. Can you guess what's being recycled in this picture? [2]

2 (Pause for students to respond.)

This is a picture of plastic bottle tops! All of these bottle tops were collected at a recycling center. Then they were taken to a

plastics recycling factory where they were pressed together in a big colorful mishmash. Later, these bottle tops will be melted down into a liquid so that they can be remolded and turned into something new made of plastic.

Look around your classroom right now and see if you can spot anything made of plastic. I bet you can! Maybe it's even made from recycled plastic. Or, maybe it's something you can recycle when you're done with it so it can be made into something else.

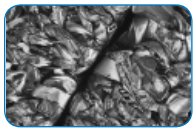
Show image 5A-4: Aluminum cans

What's in this picture? Here are some cans made out of a metal called **aluminum.** Maybe you have had drinks that come in cans like these. If you throw a can away into a trash can and send it off to a landfill, it will take at least five hundred years for that aluminum can to break down and decompose! But if you put the same can in a recycling bin instead, the aluminum metal can be reused, and the cans don't have to be buried in a landfill.

Show image 5A-5: Recycling stages

Let's take a closer look at how cans are recycled. This diagram, or drawing, shows what happens when you recycle an aluminum can. Aluminum is a natural resource that is mined and dug out of the earth. From there, it goes to a factory where the raw aluminum is made into metal cans that can be filled with things, like soda. After you buy a can of soda and drink it, you are left with an old, used can. You can throw the can in the garbage, but then it will end up in a landfill. A better, more responsible **solution** is to put the empty can into a recycling bin.[3]

3 A solution is an answer to a problem.

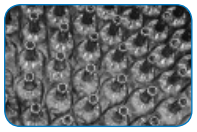


Show image 5A-6: Crushed cans

These cans have already been **sorted** and cleaned at a recycling center and are now at a special recycling factory for aluminum.[4] Workers at the recycling factory crush the cans and melt them down in a big cooker with lots of other cans. Maybe they'll make a new can, and the cycle will begin all over again: The can gets filled with something to eat or drink, someone uses the

4 So, plastic things go to a plastics recycling factory, and aluminum cans go to an aluminum recycling factory.

can and puts it in a recycling bin, the can is brought to a recycling center and finally a factory, and so on, again and again.



Show image 5A-7: Glass bottles

What are these bottles made of? [5] These bottles are made of green glass, but glass also comes in other colors, like brown and clear. If you tossed bottles like these in the trash, they would be hauled away to a landfill. Some kinds of glass take about three thousand years to decompose. That's a long time! Luckily, many glass items can be recycled instead.

5 (Pause for students to respond.)

Show image 5A-8: Recycling glass

At the glass recycling factory, the glass is crushed into little pieces. Crushed glass is then put into a very hot **furnace** and melted into a super hot, glowing liquid. With enough heat, glass melts just like ice melts.

Show image 5A-9: Melting piece of glass

Here is a little piece of glass that has been heated up so much that it is just about to melt and turn to liquid. Now imagine a big pot full of little bits of glass like this, all eventually melting together into a thick, hot, syrupy liquid. That's what you would find at a glass recycling factory.

Show image 5A-10: A bottle-making factory

This picture shows the inside of a bottle-making factory. These are freshly made bottles. They are so hot you dare not touch them! But they'll be cool and hard again soon, and maybe they'll turn out to be green bottles, just like the ones you saw earlier.

Recycling really isn't hard to do, but I'll admit that it does require a little bit of extra work. Taking the time to decide whether to throw something away in the garbage can or whether to put it in the recycling bin doesn't always make it to the top of the to-do list. But it really is worth the time to take care of good old Earth!

Be sure to ask yourself the next time you use a bottle, a can, or anything else: Is this recyclable? Can I conserve natural resources by making it into something useful again?

Discussing the Read-Aloud *15 minutes*

Comprehension Questions (10 minutes)

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses, using richer and more complex language. It is highly recommended that you ask students to answer in complete sentences by asking them to restate the question in their responses.

1. What is recycling? (Instead of throwing something away that is sent to a landfill, you save it so that it can be recycled and reused to make something new.)
2. Is it important to recycle? Why or why not? (Yes, because recycling helps reduce the size of landfills and conserves natural resources.)
3. Name some things you can recycle. (glass, plastic, aluminum, paper)
4. What happens to the things you take to a recycling center? (They go to a recycling factory and get turned into new things to be used again.)
5. [Show images 5A-8 through 5A-10.] Describe the steps taken to recycle glass. (The glass gets crushed; next, it is melted; then, people use the melted glass to make new glass items.)

I am going to ask a question. I will give you a minute to think about the question. Then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

6. *Think Pair Share:* Why is it important to sort the items being recycled? (Each type of item is taken to a different type of recycling factory. So, if you sort, it makes it easier for people to recycle the items.)

Word Work: Solution (5 minutes)

1. In the read-aloud today, we heard that recycling is a responsible *solution* to too much garbage.
2. Say the word *solution* with me.
3. A solution is an answer to a problem.
4. Mark and Carmen both wanted to play with the blocks, so they decided that the best solution would be to take turns.
5. Tell about one possible solution to help keep Earth clean. Think about some of the problems that make the Earth dirty or polluted, and then think of a solution to that problem. Try to use the word *solution* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "One solution to help keep Earth clean is . . .")
6. What's the word we've been talking about?

Use a *Synonyms and Antonyms* activity for follow-up. Directions: The opposite of a solution is a problem. If something I say sounds like a solution, say, "solution." If something I say sounds like a problem, say, "problem."

1. The family cat is stuck in a tall tree. (problem)
2. A fireman comes and gets the cat down. (solution)
3. Two sisters are arguing about who gets the last cupcake. (problem)
4. The sisters decide to share the cupcake. (solution)

Complete Remainder of the Lesson Later in the Day

5B Recycle! Recycle! Recycle!

Extensions

15 minutes

Sayings and Phrases: A Place for Everything, and Everything in Its Place (5 minutes)

Proverbs are short, traditional sayings that have been passed along orally from generation to generation. These sayings usually express general truths based on experiences and observations of everyday life. While some proverbs do have literal meanings—that is, they mean exactly what they say—many proverbs have a richer meaning beyond the literal level. It is important to help your students understand the difference between the literal meanings of the words and their implied, or figurative, meanings.

Ask the students if they have ever heard anyone say, "A place for everything, and everything in its place." Have students repeat the saying. Explain that this saying means that there should be a proper place for everything and that things should be returned to where they belong after they are used. Explain to students that one situation in which this saying can be used is when students finish doing crafts. Students should clean up after themselves and return all supplies to where they belong. Have students give examples, using the saying.

Tell students that this saying can also be used when it comes to recycling. Explain that when people recycle, they should put everything in its proper place. This means that people should sort recyclable items and place them in the bins that the items belong in—plastic bottles in the plastics bin, paper in the paper bin, aluminum in the metals bin. Any time students encounter a situation in which they should put things in their proper place, be sure to use the saying, "A place for everything, and everything in its place."

10 Sorting Recyclable Items (Instructional Master 5B-1)

Tell students that they will practice the saying they have just learned. Have students look at Instructional Master 5B-1. Explain to students that there are pictures of different recycling bins on the right-hand side of the page and that you will read aloud the word on each bin that explains what the bin is used for. Tell students that they will practice sorting recyclable items on their worksheet. Explain to students that they will sort by drawing a line from each picture on the left-hand side of the page to the bin in which the item belongs. Provide enough time for the students to complete the activity. Help students who have trouble distinguishing which bin is which.

After students have completed the assignment, go over each answer with them. At the end of the activity, remember to say to students, "This activity was about putting things in their proper place. Remember, a place for everything, and everything in its place!"

6 Composting

Lesson Objectives

Core Content Objectives

Students will:

- Understand that composting is a type of recycling in which discarded food scraps decay in an outdoor pile or bin and eventually become garden soil
- Sequence what happens to a piece of discarded food from table to compost pile to garden
- Identify foods that can be composted

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Follow multi-step, oral directions (L.K.5)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to predictions (L.K.12)
- Describe illustrations (L.K.13)

- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Learn new words from read-alouds and discussions (L.K.24)
- Retell important facts and information from a read-aloud (L.K.30)

Core Vocabulary

compost, *n.* A mixture of decaying foods and other natural things, like leaves and grass clippings, that eventually turn into soil
Example: Tim adds his uneaten vegetables to the compost in a bin outside.
Variation(s): composts

leftovers, *n.* Uneaten food that remains after a meal
Example: After Thanksgiving, we use our turkey leftovers to make sandwiches.
Variation(s): leftover

nutrients, *n.* Things needed by living things to grow and stay healthy, such as vitamins and minerals
Example: My sister stays healthy by eating foods that are full of nutrients.
Variation(s): nutrient

process, *n.* A series of steps taken to do something
Example: Following a recipe is a step-by-step process.
Variation(s): processes

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**	KWL Chart	10
	Essential Background Information or Terms		
	Personal Connections		
	Purpose for Listening		
Presenting the Read-Aloud	**Composting**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Compost		5
Complete Remainder of the Lesson Later in the Day			
Extensions	**Composting**	Image Cards 8–11 Instructional Master 6B-1 scissors, glue	15
Take-Home Material	**Parent Letter**	Instructional Master 6B-2	

6A Composting

Introducing the Read-Aloud

***10** minutes*

What Have We Already Learned?

Review the KWL chart that was created earlier in this domain. Remind students that the KWL chart is about the things that they know, wonder, and have learned about taking care of the earth.

Especially review the 'K' and 'L' columns that were created earlier, emphasizing in particular the topics related to recycling.

Essential Background Information or Terms

Tell students that today they are going hear a read-aloud about another type of recycling; however, instead of learning about how to recycle cans, bottles, or paper, as in the previous read-alouds, they are going to learn how to recycle certain kinds of leftover food! This type of recycling of leftover foods is called composting. Explain to students that like other recycling, the process of composting starts with sorting things into different groups. Instead of sorting bottles and cans into bins, people sort leftover food according to whether the food can or cannot be composted. In the read-aloud, the students will also hear about the other steps involved in composting and how the leftover food eventually changes into rich soil that can be used to grow more healthy plants.

Personal Connections

Explain to students that composting is one way to pitch in and help Earth stay clean. Ask if any students and their families compost leftover food scraps at home. Then ask students, "What are other ways in which your family pitches in to keep Earth clean and healthy? Do you remember the three Rs?" Encourage them to name good habits to have if they want to reduce, reuse, and recycle things; such as turning off the water when brushing their teeth or sorting

their recyclable items before going to a recycling center. Remember to repeat and expand upon each response, using richer and more complex language, including, if possible, any read-aloud vocabulary.

Purpose for Listening

Tell students that in this read-aloud, they will hear about the Smith family, a family that composts. Tell them to listen carefully and try to remember each step in the composting process. Tell students that not all foods can be recycled and composted, so ask them to also listen carefully to find out which foods people should and should not put in the compost pile.

Note: Remember to put on your Earth Hat to present the read-aloud and remind students that in the read-aloud, Earth will be pretending to "talk" to them.

Presenting the Read-Aloud — *10 minutes*

Composting

Show image 6A-1: Earth covered with vegetable garden [1]

1 Describe this illustration. What do you already know about plants?

Earth here. Once again, I've asked an artist friend of mine to help teach you an important lesson. She drew a picture of me covered with all different kinds of plants and vegetables. Why? This will help remind you that you can get everything you need in order to thrive and survive from me, good old Earth.

Show image 6A-2: Lush garden

Even if you don't live on a farm, you can still make a little vegetable garden or grow a few potted plants, whether you want to grow flowers, vegetables, or both. You probably know that vegetables are very good for your body, and there's nothing healthier than a vegetable that you grow in your own garden. Plus, gardens are good for the earth—they provide food for bees and other animals. Do you remember that when we talked about natural resources and trees, we talked about how trees take in the dirty air and then put out fresh, clean air afterward? Gardens also help keep the air a little cleaner and the earth a little prettier.

Today I want to tell you about a special kind of recycling that is good for you, good for your garden, and good for the earth. Once again, my artist friend has made some pictures to go along with the story I'm about to tell.

Show image 6A-3: Smith family

Meet the Smiths. As you can see, the Smiths prepared a dinner of spaghetti, bread, and salad. After everyone has finished eating dinner, it will be time to clean up. They made a lot of spaghetti and salad, so they'll have some **leftovers.** [2] Mrs. Smith will put some of these leftovers in reusable containers and then in the refrigerator for lunch or a snack the next day.

2 Leftovers are the uneaten foods that remain after a meal.

But some of the leftovers aren't really worth saving because they are such small amounts, such as the scraps on their plates.

What will the Smiths do with these types of leftovers? They already know the answer to this question. They have a clean-up plan that is friendly to the earth and good for their garden!

Show image 6A-4: Mr. Smith and Jamie cleaning plates and other leftovers

It's Mr. Smith's job to scrape the plates. He scrapes chunks of meatballs and buttered bread into the garbage, but he puts bits of spaghetti, tomato sauce, and salad into a small pail.

Then the youngest Smith child, Jamie, adds more scraps to the pail. He adds vegetable scraps left over from making the salad, such as carrot and cucumber peelings,[3] celery leaves, and loose pieces of lettuce. Jamie could throw these in the garbage, but instead he puts them in the pail. This leftover food won't end up in a landfill. But do you have any idea what *will* happen to it?[4]

3 or the skins peeled off of the carrots and cucumbers

4 (Allow time for students to guess what the Smiths will do with the scraps in the pail.)

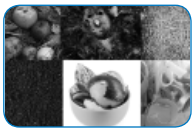
Show image 6A-5: Chris dumping food scraps onto compost pile

Jamie's brother, Chris, takes the container outside and dumps it into a large bin. What is going on here? Is Chris making leftover soup outside? Do the Smiths love their leftover food scraps so much that they keep a pile of it in their backyard?

Actually, the answer is yes. The Smiths do love their leftover food scraps. You see, the Smiths know that if they put food scraps in a bin to make **compost,** they will be rewarded in at least two ways. First, they won't have to send as much garbage to the landfill. That is something they can feel good about; by composting, they are being friendly to the earth and not loading the planet up with trash. Second, if they keep adding to their compost pile and taking good care of it, then they'll end up with a pile of soil full of **nutrients** for the garden.[5]

The soil that comes from composting is called compost, and it is very good for plants. Putting compost on plants is like feeding them super vitamins. The compost is full of nutrients that make the plants grow stronger and healthier.

5 Nutrients, like vitamins and minerals, help make living things grow. What kinds of living things could grow in soil that is full of nutrients?



Show image 6A-6: Collage with lots of materials to use in composting

The Smiths are careful to add only materials that make good compost. They don't add meats or oily foods like butter, as these kinds of foods can make the compost smell bad and attract rodents and other wild animals. [6]

6 So, what kinds of foods should you not put in the compost pile?

Fruits and vegetables—including leftover Halloween jack-o-lanterns and coffee grounds—are perfect for composting. The Smiths also add leaves, grass clippings, and other stuff from the yard that they mix with the leftover foods. [7]

7 (Point to illustration.) What foods can go in a compost bin?

Every week or so, the Smiths stir the compost around with a rake or pitchfork and soak the pile with water from a garden hose. Then the sun begins to shine, and the pile heats up. [8] Heat and moisture make the materials in the compost bin break down even faster. [9] Some people even add worms to their compost bins to eat the old food and turn it into garden soil even faster—worms are nature's own recyclers! After a few weeks, the food in the compost bin won't look like food any more—it'll look like nice, rich, dark soil.

8 With the warm heat from the sun and the water, it's almost like "cooking" everything that is in the compost pile!

9 Another way of saying that the materials break down is to say that the materials decay, rot, or decompose.

Show image 6A-7: Mrs. Smith scooping compost from bin

When the compost is ready, Mrs. Smith scoops a shovelful from the bin. She puts the compost around a new tomato plant she has planted in her garden. The roots of the tomato plant begin to take in water and food from the composted soil. Soon the plant will grow strong and healthy, thanks in part to the nutrients from the compost.

Show image 6A-8: Jamie and Mrs. Smith picking a tomato

A couple of months later, the tomato plant is big and healthy and full of nice red tomatoes. Jamie helps his mom pick some of the tomatoes on the plant. And what do you suppose happens next? [10]

10 (Pause for possible answers.)

What happens next is that the Smiths use the tomatoes to make a salad. And what do you suppose they do with the leftovers from that salad? They toss them in the compost pile, of course, so the **process** can start all over again.

Discussing the Read-Aloud — *15 minutes*

Comprehension Questions (10 minutes)

1. Why are plants important? (Plants provide food for people, bees, and other animals; plants help keep the air clean.)
2. What is composting? (You start by saving certain kinds of foods like vegetable and fruit scraps outside in a pile or bin. The food scraps eventually turn into good soil.)
3. Why is compost good for gardens? (Compost has lots of nutrients that will help the plants grow big and strong.)
4. Name things you can compost. (vegetables, spaghetti, coffee grounds, and leaves)
5. Name things you should not compost. (meat, oil, and buttery foods)
6. Why shouldn't you compost meats and oils? (They make the compost smell bad and attract wild animals.)
7. Describe the process of composting. (Sort leftovers. Dump foods to be composted in a bin outside. Water and mix the decaying scraps with a shovel or a rake. Wait for the food to decompose into soil. Use the soil in your garden to grow new plants.)
8. *Think Pair Share:* How does composting leftovers help take care of the earth? (Composting reduces the garbage in landfills, and creates rich soil for gardens.)

Word Work: Compost (5 minutes)

1. In the read-aloud today, we learned about the process of making *compost*.
2. Say the word *compost* with me.
3. Compost is decayed food that turns into soil.
4. You can make compost out of scraps of food or even leaves and cut grass.

5. Tell about something you can turn into compost. Try to use the word *compost* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "One thing I can turn into compost is ___.")
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: If any of the things I say would make good compost, say, "That would make good compost." If any of the things I say would not make good compost, say, "That would not make good compost."

1. steak (That would not make good compost.)
2. shredded lettuce (That would make good compost.)
3. buttered toast (That would not make good compost.)
4. spaghetti with tomato sauce (That would make good compost.)
5. leftover salad without dressing (That would make good compost.)
6. hot dogs (That would not make good compost.)
7. the skins or peels from vegetables (That would make good compost.)

Complete Remainder of the Lesson Later in the Day

6B Composting

Extensions

15 *minutes*

10 Composting (Instructional Master 6B-1)

Remind students of the steps in the process of composting. Use Image Cards 8 (sorting foods to throw out and foods to compost), 9 (putting food into the compost bin), 10 (turning the compost), and 11 (using the compost to grow tomatoes) to remind students of the process. Tell students that in the following activity, they will focus on sorting foods (as seen in Image Card 8).

Have the students look at Instructional Master 6B-1. Distribute scissors and tape, glue, or paste to each student. Help students identify the pictured items. Instruct students to cut out the pictures along the dashed lines. Then have students sort the items as either good to compost or bad to compost. Have students paste each item inside the compost bin if it is good to compost or inside the trash can if it is bad to compost.

After students have finished the activity, call on volunteers to show their worksheets. Have them explain why they thought that certain items made good compost and certain items made bad compost. If a student's response includes inaccurate information, refer back to the read-aloud and/or illustrations to correct any misunderstandings.

Parent Letter

Send home Instructional Master 6B-2.

PP1 Pausing Point 1

Note to Teacher

Your students have now heard several read-alouds about the importance of natural resources and what students can do to help take care of the earth. You may choose to pause here and spend one to two days reviewing, reinforcing, or extending the material taught thus far.

If you do pause, you may have students do any combination of the activities listed below. The activities may be done in any order. You may wish to do one activity on successive days. You may also choose to do an activity with the whole class or with a small group of students who would benefit from the particular activity.

Core Content Objectives Up to This Pausing Point

Students will:

- Understand that Earth is composed of land, water, and air
- Identify examples of land, water, and air from their own environments
- Understand that humans, plants, and animals depend on Earth's land, water, and air to live
- Understand why people have a special responsibility to take care of the earth
- Understand that humans generate large amounts of garbage, which must be disposed of
- Sequence what happens to garbage from its creation to being dumped in the landfill
- Explain what a landfill is and why it is a dangerous place
- Evaluate whether landfills are an adequate solution to the problem of garbage

- Understand that natural resources are things found in nature that are valuable and of great importance to people
- Identify key natural resources and describe how people use them
- Recognize the phrase "Reduce, reuse, recycle" and explain how doing these three things can help to conserve natural resources
- Identify the recycling symbol and understand that recycled materials are made from reused garbage
- Identify common recyclable materials, including glass, plastic, aluminum, cardboard, and paper
- Understand the process of recycling materials from home to the recycling factory
- Understand that composting is a type of recycling in which discarded food scraps decay in an outdoor pile or bin and eventually become garden soil
- Sequence what happens to a piece of discarded food from table to compost pile to garden
- Identify foods that can be composted

Activities

Image Review

Show the images from any read-aloud again, and have students retell the read-aloud using the images.

Image Card Review

Materials: Image Cards 1–11

Have students review Image Cards 1–11. Help students identify the image cards and brainstorm what has been learned about taking care of the earth. Then pass out Image Cards 1–11 to various students. Have students do a *Think Pair Share* for each image card. For example, for the picture of sorting items for compost, a student might ask, "What items are good for composting?" or "What items are bad for composting?"

Guest Speakers

Invite parents or trusted community members whose careers or volunteer work help to take care of the earth. For example, you may invite someone who works at a recycling center, or someone who does litter pick-up or trash collection. Ask your guests to bring in any photographs or other objects that will help to show students what they do to help take care of the earth. You will want to share with your guest speakers, ahead of time, what you have already discussed in class so that they are better able to address the students.

Natural Resources in the Classroom

Ask students to think about what natural resources they have learned about and then identify some natural resources that they notice are being used in the classroom. You may wish to guide students by explaining how cotton plants provide the material for the jeans children wear; the paper they use comes from trees; and the sandwich bags containing their lunches are made in factories by using natural resources.

To increase awareness of our dependency on electricity, you may also have students point out all the appliances in the classroom that use electricity and the amount of time each item is in use.

Reduce, Reuse, Recycle!

Show students Flip Book image 2A-2. Instruct students to look closely at all the objects that have been dumped in this landfill. Have students think of different ways that items in this landfill could be reused. For example, ask students what they think could be done with the bicycle parts that have been left behind. Encourage students to use their imaginations to create new items that people could use to reduce, reuse, and recycle the garbage in this landfill.

Key Vocabulary Brainstorming

Materials: Chart paper

Give the students a key domain concept or vocabulary word such as *recycle.* Have them brainstorm everything that comes to mind when they hear the word, such as *conserve, reduce,* etc. Record their responses on a piece of chart paper for reference.

Domain-Related Trade Book or Student Choice

Materials: Trade book

Read an additional trade book to review a particular concept; refer to the books listed in the domain introduction. You may also choose to have the students select a read-aloud to be heard again.

Class Book: Reduce, Reuse, Recycle

Materials: Drawing paper, drawing tools

Tell the class or a group of students that they are going to make a class book to help them remember what they have learned thus far in this domain. Have the students brainstorm important information about the importance of taking care of the earth by reducing, reusing and recycling earth's natural resources. Have each student choose one idea to draw a picture of and ask him or her to write a caption for the picture. Bind the pages to make a book to put in the class library for students to read again and again. You may choose to add more pages upon completion of the entire domain before binding the book.

Riddles for Core Content

Ask the students riddles such as the following to review core content:

- We are three things that make up planet Earth. What are we? (land, water, air)
- We create all the trash on the earth. Who are we? (people)

- I am a dangerous place filled with garbage that gives off hazardous gases and chemicals, which can go into the land, water, and air. What am I called? (a landfill)
- I am something in nature that is important to people and which they can use to make other things. What am I called? (natural resource)
- I am a natural resource that is saved when paper is reused and recycled. What am I? (a tree)
- We are special containers that help you to recycle paper, plastic and glass. What are we? (recycling bins)
- I am decayed food that turns into good soil. What am I? (compost)

Class Recycling Center

Have students create a plan for a recycling center in the classroom for paper, plastic, and aluminum. Ask students to think about what items are needed, such as the three different recycling bins. Once the bins have been brought into the classroom, have students label them for the appropriate items. Show students the recycling symbol on the bottom of a can or bottle, and look for other items in the classroom that could be sorted into each bin. Have students think of the number of items they use in one day that could be recycled. Encourage students to think of ways they might reuse some of these items. For example, plastic containers may be used to hold paint brushes or pencils; paper scraps can be reused to make a collage; etc.

Class Job List

Students have now learned many different ways that they can reduce, reuse, and recycle natural resources. Discuss with students possible jobs around the classroom that could contribute to taking care of the earth. Make a list of these jobs and then add them to the class job list. For example, items could include making sure that the water is turned off in the bathrooms; assigning a key person to turn the lights off; recycling paper; etc. At the end of each week, have students report back to the class on the progress of the jobs on their class list.

7 Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out

Lesson Objectives

Core Content Objectives

Students will:

- Understand that humans generate large amounts of garbage, which must be disposed of
- Identify garbage as being a problem and the various means of garbage disposal in terms of a solution

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Describe illustrations (L.K.13)
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)

- Use narrative language to describe people, places, things, locations, events, actions, a scene, or facts in a read-aloud (L.K.16)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Make personal connections to events or experiences in a read-aloud and/or make connections among several read-alouds (L.K.19)
- Draw pictures and/or dictate ideas to represent details or information from a read-aloud (L.K.21)
- Distinguish fantasy from realistic text (L.K.22)
- Learn new words from read-alouds and discussions (L.K.24)

Core Vocabulary

cellophane, *n.* A thin, see-through plastic
Example: The colorful candies were wrapped in clear cellophane.
Variation(s): none

fate, *n.* The final outcome or result of something; destiny
Example: Jeremiah felt that it was his fate to win the game.
Variation(s): fates

rancid, *adj.* Smelling or tasting bad because of being old and rotten
Example: You could smell the rancid garbage from the next room.
Variation(s): none

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**		10
	Personal Connections		
	Purpose for Listening		
Presenting the Read-Aloud	**Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out**		10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Rancid		5
Complete Remainder of the Lesson Later in the Day			
Extensions	**Somebody Wanted But So Then**	chart paper, chalkboard, or whiteboard	15

7A Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out

Introducing the Read-Aloud

10 *minutes*

What Have We Already Learned?

Remind students that they have been listening to read-alouds about the problems that garbage creates, such as the need for landfills that may become dangerous. Next, ask students if they remember the special three-word phrase starting with the letter 'R' that reminds them about the things they can do to create less garbage—reduce, reuse, and recycle. Finally, remind students that in the last read-aloud they heard about the Smith family, and a special kind of recycling called composting. Ask students what items are recycled in composting (leftover food, especially vegetables and fruits) and also ask them to recall the specific steps in composting, referring as necessary to the text or images in Lesson 6.

Personal Connections

Tell students that in this read-aloud they will listen to a funny poem by a famous author named Shel Silverstein. Tell them that the main character in the poem, Sarah Cynthia Sylvia Stout, refuses to take out the garbage and lets it pile up day after day. Explain that taking out the garbage is Sarah's responsibility. Ask the students what they think might happen if Sarah Cynthia Sylvia Stout refuses to take the garbage out?

Now ask students if they have ever had a responsibility or chore that they did not do. Have some students describe the consequences of their inaction. Then say: "We all have responsibilities to help keep things clean. What do you think would happen if people were not responsible for taking care of Earth?"

Purpose for Listening

Tell students to listen carefully to find out what kinds of problems are created because Sarah Cynthia Sylvia Stout refuses to take the garbage out.

Presenting the Read-Aloud — *10 minutes*

Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out by Shel Silverstein

Show image 7A-1: Garbage piled high

Text not included because of permission limitations.

Revised materials produced specifically for NYSED will include images and texts compliant with Creative Commons Licensing.

The text for this read-aloud can be found in *Where the Sidewalk Ends,* by Shel Silverstein, 1974.

Show image 7A-2: Sarah Stout fleeing garbage

Read It Again

Reread with the Guided Listening Support.

Show image 7A-1: Garbage piled high

1 Sarah is supposed to take out the garbage. How do you think she feels about that chore after looking at this picture? Does it look like she wants to take out the garbage?

2 Are any of these items good for composting?

Show image 7A-2: Sarah Stout fleeing garbage [3]

3 Why is Sarah running away?

4 Cellophane is thin, see-through plastic.

5 or old and rotten meat

6 Do you think this could really happen?

7 *Met an awful fate* means came to an awful end.

8 Does this poem convince you to take the garbage out?

Discussing the Read-Aloud *15 minutes*

Comprehension Questions (10 minutes)

1. What is the problem in this poem? (Sarah will not take out the garbage.)
2. Why do you think Sarah doesn't want to take out the garbage? (She does not like touching garbage; she is being lazy; etc.)
3. Describe how you think the garbage in Sarah's house looks and smells. (It is stacked up high; it smells rancid and rotten.)
4. How do other people react to the garbage? (Sarah's dad screams and shouts.) What problems occur because Sarah refuses to take out the garbage? (The garbage piles up higher and higher and stinks; all the neighbors move away; Sarah's friends will not play with her.)
5. What could have been the solution to the problem in this poem? (Sarah could have solved the problem early on by taking out the garbage.) Think back to the read-aloud when we heard about the Smith family and how they took care of their garbage. What other solution might Sarah have tried besides just taking the garbage out to the garbage can? (composting)
6. At the end of the poem, why is it too late for Sarah to solve the problem by simply taking out the trash? (Too much garbage has piled up; it is out of control.)
7. *Think Pair Share:* Do you think what happens in this read-aloud could really happen, or it is pretend, or fantasy? Why or why not? (It is true that you can create problems if you don't take out the trash; however, this story is fantasy because one family's garbage cannot reach the sky and stretch across the country.)

Word Work: Rancid (5 minutes)

1. In the poem today, we learned that the garbage in Sarah's house smelled *rancid* because of all the garbage.
2. Say the word *rancid* with me.
3. *Rancid* means smelling or tasting bad because something is old or rotten.
4. Rotting food might smell rancid because it is decomposing, or breaking down.
5. Tell about something that you might have experienced before that tasted or smelled rancid. Try to use the word *rancid* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "One thing that smelled or tasted rancid was___.")
6. What's the word we've been talking about?

Use a *Synonyms and Antonyms* activity for follow-up. Directions: The opposite of *rancid* is *sweet-smelling.* If any of the things I describe smell rancid, say, "rancid." If any of the things I describe smell sweet, say, "sweet-smelling."

1. rotten eggs (rancid)
2. a garden of flowers (sweet-smelling)
3. week-old meat that your dad forgot to put in the refrigerator (rancid)
4. a bowl full of fresh fruit (sweet-smelling)
5. a bag of garbage in the trash can that you forgot to throw out (rancid)

Complete Remainder of the Lesson Later in the Day

7B Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out

Extensions

15 minutes

Somebody Wanted But So Then

Explain to students that you are going to retell the poem about Sarah Cynthia Sylvia Stout and make a chart to help them remember the most important parts of the poem. Tell students that you are going to write down what they say, but that they are not expected to be able to read what you write because they are still learning all the rules for decoding. Emphasize that you are writing what they say so that you don't forget, and tell them that you will read the words to them.

Draw the following chart on chart paper, a chalkboard, or a whiteboard. Draw it with blanks in the right-hand column. Sample answers have been placed in the chart.

Somebody	Sarah's father
Wanted	Wanted her to take out the garbage.
But	But day after day, Sarah refused to do so.
So	So Sarah's house overflowed with all different kinds of trash that eventually reached up to the sky.
Then	Then Sarah changed her mind and decided to take out the trash, but it was too late, and the trash spread out across the United States.

Tell students that you are going to write the words *Sarah's father* on the chart next to Somebody.

Ask students what Sarah's father wanted her to do. Tell them that you are going to write that Sarah's father wanted her to take out the garbage.

Ask students if Sarah listened to her father. Tell them that you are going to write that day after day, Sarah refused to take out the garbage.

Ask students what happened next. Tell them that you are going to write down that Sarah's house began to overflow with so much trash, that it spilled out and eventually reached the sky.

Ask students what happened once the trash spilled out of the house. Tell them that you are going to write that Sarah finally changed her mind and decided to take out the trash, but it was too late, because the trash had spread out across the United States.

Read the completed chart to the class.

8 Pollution

Lesson Objectives

Core Content Objectives

Students will:

- Understand that land, air, and water all suffer from different types of pollution, and all types of pollution are caused by human activities
- Understand that if people are careful and creative, they can help reduce pollution

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud (L.K.10)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Describe illustrations (L.K.13)
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)

- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds (L.K.18)
- Learn new words from read-alouds and discussions (L.K.24)
- Retell important facts and information from a read-aloud (L.K.30)
- With assistance, categorize and organize facts and information within a given domain (L.K.32)

Core Vocabulary

litter, *v.* To throw trash or garbage outside where it does not belong, instead of putting it in a garbage can
Example: I started to throw my candy wrapper out the car window, but my mom told me not to litter.
Variation(s): litters, littered, littering

pitch in, *v.* Join in to help
Example: Let's pitch in to clean up the park.
Variation(s): pitches in, pitched in, pitching in

pollution, *n.* The introduction of something harmful into the air, water, or land that doesn't belong there
Example: A factory that dumps chemicals into a river creates dangerous water pollution.
Variation(s): pollutions

smog, *n.* Fog mixed with smoke and other dirty things in the air; a type of air pollution
Example: The smog that floats over our city causes many health problems.
Variation(s): none

toxic, *adj.* Poisonous; harmful
Example: Toxic chemicals in the river water killed many fish.
Variation(s): none

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**Know-Wonder-Learn Chart**	KWL Chart	10
	Essential Background Information or Terms	KWL Chart	
	Purpose for Listening		
Presenting the Read-Aloud	**Pollution**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Toxic		5
 **Complete Remainder of the Lesson Later in the Day**			
Extensions	**Know-Wonder-Learn Chart**	KWL Chart	15

8A Pollution

Introducing the Read-Aloud

***10** minutes*

Know-Wonder-Learn Chart

Review the KWL chart that was created earlier in this domain. Remind students that the KWL chart is about the things that they know, wonder, and have learned about taking care of the earth.

Review the 'K' and 'L' columns that were created earlier. Then ask students to tell you what else they have learned so far about taking care of the earth. Remind them about composting, and reread small sections of Lesson 6 aloud or show the illustrations, as necessary, to help students check the accuracy of their responses.

Prior to recording the students' responses under the 'L' of the KWL chart, point out that you are going to write down what they say, but that they are not expected to read what you write because they are still learning the rules for decoding words. Emphasize that you are writing what they say so that you don't forget, and tell them that you will read the chart to them.

Essential Background Information or Terms

Remind students that Earth is made up of land, water, and air. When something harmful that does not belong on Earth is brought into the land, water, or air, it is called pollution. For example, throwing trash out of the car on the ground, or littering, is a type of pollution. There are three basic types of pollution: land pollution, water pollution, and air pollution. Tell students that they are going to hear about the three types of pollution in this read-aloud.

Have students think about what they may already know about pollution. Give students the opportunity to share anything that they already know about pollution, and record the information on the KWL chart under 'K.' If a student's response includes inaccurate factual information, record it nonetheless, and acknowledge the

response by saying something like, “So you think there is nothing we can do about pollution? We’ll have to listen very carefully to our read-aloud and find out if that’s true!”

After writing down the details of what students know, ask, “What do you wonder, or want to know, about pollution?” Record these responses under the ‘W’ of the KWL chart. Ask students to keep the list of ‘W’ questions in mind as they listen to the upcoming read-alouds to see if they can find out some of the answers.

Purpose for Listening

Tell students to listen for descriptions of the different types of pollution.

Note: Remember to put on your Earth Hat to present the read-aloud and remind students that in the read-aloud, Earth will be pretending to “talk” to them.

Presenting the Read-Aloud — *10 minutes*

Pollution

Show image 8A-1: Earth surrounded by hands

Hi, kids, good old Earth here again. I want to start by showing you a little art. This picture was made by an artist who wanted to make a point about how important it is to take care of the earth.

What do you think the artist is trying to get across to people? Do the three hands remind you of anything that I have told you about before? [1]

1 (Pause for students to respond.)

Show image 8A-2: Recycling arrows on the earth with hands

Now do you remember? That's the recycling symbol reminding you to recycle trash instead of throwing it away. This artist has taken a different approach, using hands to show that, in a way, people hold good old Earth in their hands. In other words, it's your responsibility to take care of me.

Show image 8A-3: Clean beach, dirty beach [2]

2 How are these two pictures alike? How are they different?

What do you notice about these two pictures? They were both taken at the beach—full of sun and sand and surf. But which beach would you rather visit if you had to choose? The trash you see in this picture is called **litter.** Litter is trash that was not put in the right place. It was left on the ground or in the water instead of in the trash can or recycling bin.

Show image 8A-4: Litter in park

What about this picture? It looks like it was taken in a park. There is nice green grass and there are woods in the background. Does this look like a fun place to play? Not with all that litter there!

Show image 8A-5: Litter

Litter is more than just ugly. It can also be harmful to animals, plants, and anything else that needs to live on land or in the water. Certain types of litter, like empty paint or oil cans, leave

toxic, poisonous chemicals in the ground, water, and air. And what's more, areas with a lot of litter tend to attract rats and other undesirable pests that like to eat trash. Many of these animals will get sick from eating the litter.

Show image 8A-6: Litter in the water

There is a word for things that make parts of the earth dirty and dangerous. This word is **pollution.** Litter is a type of pollution. In this picture, you can see litter that has collected in a river. Now this litter has become water pollution. Litter is ugly, and it hurts all the plants and fish and other creatures that live in and around the water. It can also make the water bad for people to drink.

I hate to see all this trash in the water, but even worse is the fact that I see lots of plastic and glass bottles. They can be recycled, but first someone has to go out in a boat and collect all this litter out of the water.

Show image 8A-7: City smog[3]

3 Can you see the city in this picture very well?

I showed you some land and water pollution, which is called litter. This picture shows the effects of another kind of pollution. Can you guess what this type of pollution is called?

It's air pollution. This picture was taken during the daytime in a big American city. This city is covered in **smog,** heavy air pollution that sometimes gets so bad that it hovers or hangs around like a blanket over the entire city. Much of the smog you see here is caused by the exhaust from cars.[4]

4 Exhaust is the waste given off by car engines in the form of a gas. It comes from the car engine, out through the tailpipe at the back of the car, into the air.

Show image 8A-8: Factory smog

Two of the biggest causes of air pollution are cars and factories. Look at all that smoke in the air. What do you think will happen to all that pollution? Some of it will settle for a while in the skies around the factory to form smog, but most of it will be picked up by the wind and carried to the skies over other places. Some of it will also be carried way up into the atmosphere, the air high above the earth—up to where the airplanes fly. It can cause problems up there, too.

I'll tell you more about air pollution another day, but I just wanted to show you how ugly it can be.

Show image 8A-9: Kid shrugging

Now I've shown you some ugly, littered places and taught you a new word: *pollution.* Every day people do things that create pollution. So, what can you or anyone else do about it?

I wouldn't have told you about the problem of pollution if I didn't think there was a way to fix it. A solution is something that fixes a problem. We need solutions for pollution!

Show image 8A-10: Scientist

Fortunately, there are lots of people in this world who know about pollution and are finding ways to reduce it as much as possible. Every day, scientists and businesses are working to make cleaner cars and factories. And, every day, people all over the world—including kids like you—are doing what they can to **pitch in** and help reduce pollution.[5] You are going to learn more ways to help, but I'd be willing to bet that you already have some ideas of your own.

5 *Pitch in* means to join in and help out doing something.

Discussing the Read-Aloud — *15 minutes*

Comprehension Questions — (10 minutes)

1. What are the three types of pollution? (land, water, and air pollution)
2. Which creatures on the planet cause pollution? (people)
3. Why is littering a bad thing? (It can be harmful to animals and plants; some litter is toxic.)
4. What can happen if animals or people drink polluted water? (They can become sick.)
5. What kinds of problems do you think smog can cause? (It can make birds sick; it can make people who breathe the air sick; etc.)

6. *Think Pair Share:* Describe one solution to pollution. (Drive less; make cleaner factories; don't litter.)

Word Work: Toxic (5 minutes)

1. In the read-aloud today, we heard that some litter can be *toxic.*
2. Say the word *toxic* with me.
3. *Toxic* means poisonous.
4. If something is toxic, eating it or even being near it can make you sick.
5. Tell about something that is toxic. Try to use the word *toxic* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "One thing that is toxic is ___.")
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: If any of the things I say might be an example of something toxic, say, "toxic." If they are not toxic, say, "not toxic."

1. drinking clean water (not toxic)
2. breathing the polluted air that comes out of a factory (toxic)
3. eating an orange from a local farm (not toxic)
4. drinking polluted water from a stream that a factory dumps into (toxic)

Complete Remainder of the Lesson Later in the Day

8B Pollution

Extensions

15 minutes

Know-Wonder-Learn Chart

Review the 'K' and 'W' columns of the KWL Chart that were created earlier. Ask students what they learned in the read-aloud and record their responses in the 'L' column. Reread small sections of the text aloud, as necessary, to help students check the accuracy of their responses. As students respond, refer back to both the 'K' and 'W' portions of the chart to see if what they have learned relates to what was written in either the 'K' or 'W' column. In the event that something newly learned in the 'L' column contradicts something that was recorded in the 'K' column, this should be discussed. For example, "Earlier today, when we were talking about what we knew, we said that there was nothing we could do to stop pollution. What do you think now?" (Then, cross out the inaccurate information in the 'K' column). Remember to save the chart paper, which will be used throughout the domain.

9 Air Pollution

Lesson Objectives

Core Content Objectives

Students will:

- Understand that air pollution from one location can make even the air that is far away in other places around the world dirty
- Identify sources of air pollution, including cars and electricity produced by coal-fired power plants
- Understand the effect of air pollution on human health
- Explain how to reduce air pollution by conserving natural resources

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud (L.K.10)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Describe illustrations (L.K.13)
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)

- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Evaluate and select read-alouds, books, or poems on the basis of personal choice for rereading (L.K.23)
- Learn new words from read-alouds and discussions (L.K.24)

Core Vocabulary

appliance, *n.* A piece of equipment or a machine designed to do a certain job, usually used in the home
Example: My mom went shopping for a refrigerator because we are moving to a new house and need that new appliance.
Variation(s): appliances

exhaust, *n.* The gas that comes out as waste from cars and other machines
Example: Exhaust from cars creates much of the air pollution.
Variation(s): none

global, *adj.* Around the world or worldwide
Example: Pollution is a global problem.
Variation(s): none

harmed, *v.* Hurt
Example: The mouse hid quickly and was not harmed by the cat.
Variation(s): harm, harms, harming

power plant, *n.* A factory or place where electricity is made
Example: The local power plant provides the town its electricity.
Variation(s): power plants

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**		10
	Purpose for Listening		
Presenting the Read-Aloud	**Air Pollution**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Harmed		5
Complete Remainder of the Lesson Later in the Day			
Extensions	**Student Choice**		15

9A Air Pollution

Introducing the Read-Aloud

***10** minutes*

What Have We Already Learned?

Remind students that in the last read-aloud they heard about different types of pollution: land, water, and air pollution. Ask them to provide an example of each type of pollution, referring to the images from Lesson 8, as necessary. Tell students that, in this read-aloud, they will focus on the harmful effects of air pollution. Briefly discuss some of the details about air pollution from the previous lesson. Ask: "How do you think smog is harmful to the health of animals, plants, and people?" Remember to repeat and expand upon each response, using richer and more complex language, including, if possible, any read-aloud vocabulary. If a student's response includes inaccurate factual information, refer back to earlier read-alouds and/or illustrations to correct any misunderstandings.

Purpose for Listening

Tell students to listen for ways in which air pollution is harmful and for ways they can help reduce air pollution.

Note: Remember to put on your Earth Hat to present the read-aloud and remind students that in the read-aloud, Earth will be pretending to "talk" to them.

Presenting the Read-Aloud — *10 minutes*

Air Pollution

Show image 9A-1: Earth coughing

Good old Earth here again. I had an artist friend of mine make this drawing. Why do you think I'm coughing in this picture? [1]

1 (Give students a chance to respond.)

Of course, I don't really need to breathe, not like you people and other animals do. And I don't actually cough, either. Sometimes, though, I do wish that I could cough just to get rid of some of the air pollution that has collected in the skies.

Air pollution is a very serious problem, and it's something that affects the whole planet. Fortunately, it's a problem that can be solved. However, it's not going to be solved unless all people—including children—pitch in and do their part to keep the air clean.

Show image 9A-2: Lungs [2]

2 What part of the body is this?

Air pollution can cause health problems for people. You have lungs inside your chest. This illustration shows you what lungs look like. Each time you inhale, or breathe in, your lungs fill up with air, like balloons. When you breathe out, or exhale, the air leaves your lungs. [3]

3 (Ask the students to put their hands on their chests as they inhale and exhale, so that they can feel their lungs expand and deflate.)

If there is pollution in the air you breathe, then each time you inhale, that pollution enters your lungs. Over time, this can cause serious health problems. The more polluted the air, the more pollution you breathe in. I'm not trying to scare you. I'm just telling you the facts. And the fact is, dirty, polluted air is bad for people's lungs and can make you sick.

Show image 9A-3: Aerial view of a city with smog

Here's a picture of a big American city. Let's take a close look at it. If you look at the background, where there are large buildings, you can see that the air looks kind of foggy and clouded. Look even closer, beyond the city, and you can see a thin brownish-yellow strip of air, just below the light-blue sky. That's air pollution, or smog, which floats over the top of the city.

Show image 9A-4: Upper atmosphere

Air pollution creates **global** problems. That means that smog and other forms of air pollution can cause problems all over good old Earth, or, as some people call me, the globe. In other words, the places that create a lot of air pollution, such as big cities with lots of cars and factories, are not the only places that are **harmed,** or hurt, by air pollution. Air pollution is carried by the wind to other places. It also floats up high into the atmosphere, higher than the highest airplanes. But it doesn't float off into space. Instead, it collects up in the sky.

Luckily, there is a lot that you can do in your home, school, and town to help solve the problem of air pollution. And here comes another big 'R' word: responsibility. That's right, if you want to make sure that the air is clean, then it's your responsibility to learn how you can help. [4]

4 What is a responsibility?

Show image 9A-5: Electrical outlet and light switch

One of the most amazing things about people is that you have figured out how to make and use electricity. You use it for so many things, including light bulbs, which you turn on and off with light switches. Televisions, refrigerators, air conditioners, computers, and so much more, are also plugged into electrical outlets. [5]

5 (Point to the electrical outlet in the picture.)

You might have heard that too much television is bad for your brain, but I bet you didn't know that it's bad for the air, too! Why? Because when you watch TV, you use electricity, and using electricity can add to air pollution, even though you can't see anything going into the air.

Show image 9A-6: Coal train

What do you see in this picture? [6] First of all, it's a really long train. More important, what is the train carrying? It's carrying one of the most important natural resources in the world: coal. Coal is a type of rock that people dig up out of the earth. People burn coal to produce energy.

6 (Pause for students to respond.)

Show image 9A-7: Coal plant

Energy from burning coal is used to make electricity. This is a picture of a huge coal-fired **power plant.** [7] Coal-fired power plants create enormous amounts of dangerous air pollution. In the lower right corner of the picture, you can see electrical lines running away from this plant.

7 A coal-fired power plant is a factory that uses coal to make electricity.

Every time you turn on a light, a computer, or any other electrical **appliance,** [8] there's a very good chance that the electricity is coming from a power plant like this one and, therefore, a little more pollution is added to the air. On the other hand, when you turn that light off, you're not adding any pollution. It's a simple thing anyone can do to help reduce air pollution. [9]

8 or machine

9 So when you leave the room for a while, what should you do on your way out?

Show image 9A-8: Car tailpipe

Here's another major cause of air pollution. Does anyone recognize this? [10] This is the tailpipe of a car. Every time someone starts a car, that car lets air pollution out of the engine through the tailpipe. The pollution that comes out of the tailpipe is called **exhaust.**

10 (Pause for students to respond.)

So, what exactly is car exhaust and how does it pollute the air?

Show image 9A-9: Pumping gas

What's this person doing? [11] He's pumping gas into his car at a gas station. Gasoline is extremely useful. You use it in your cars, trucks, buses, boats, airplanes, and lawnmowers. Every day, people around the world use millions and millions of gallons of gasoline.

11 (Pause for students to respond.)

Show image 9A-10: Traffic jam

A car's engine burns gasoline, which gives it power. When a driver "steps on the gas," he presses down the gas pedal, which is on the floor of the car. That sends more gasoline to the car engine and makes the car go faster. And, when gasoline burns—like coal—it produces air pollution. With millions of cars driving around letting out exhaust, the pollution really starts to add up. The more cars you have, and the bigger those cars are, the more air pollution you create.

So if you have a choice, always walk, ride your bike, or take the bus. It also helps when people choose to live closer to their work and school so they don't have to drive as far. This all helps reduce the amount of air pollution.

Discussing the Read-Aloud — *15 minutes*

Comprehension Questions — (10 minutes)

1. What part of your body do you breathe with? (lungs)
2. How does air pollution affect your lungs? (If you breathe in dirty air, it gets into your lungs and can make you sick.)
3. Air pollution is a global problem all around the world, not just in the place where the air pollution occurs. Why? (Wind blows dirty air from big cities to other places in the world.)
4. Why can watching too much television be bad for the air? (When you watch television, it uses electricity. If that electricity is made from burning fuel, like coal, it can cause air pollution.)
5. What do you call the gas that comes out of the tailpipe of a car? (exhaust)
6. How is car exhaust bad for the earth? (It causes air pollution.)
7. What can people do so they don't have to drive their cars so much, which causes air pollution? (They can choose to walk, bike, and live closer to their work and school.)
8. *Think Pair Share:* What can you do to reduce air pollution? (Use less electricity; walk or ride a bike instead of using a car.)

Word Work: Harmed (5 minutes)

1. In the read-aloud today, we heard that many places are *harmed* by air pollution.
2. Say the word *harmed* with me.
3. *Harmed* means hurt.
4. You might be harmed if you fall down.
5. Tell about a situation in which Earth is harmed by things people do. It could be because of smog, littering, or other types of pollution. Try to use the word *harmed* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "Earth is harmed when . . .")
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: If any of the things I say are examples of something or someone getting harmed, say, "harmed." If any of the things I say are examples of something or someone not getting harmed, say, "not harmed."

1. Someone safely crosses the road. (not harmed)
2. Someone gets sick from drinking polluted water. (harmed)
3. A squirrel escapes from a dog by climbing a tree. (not harmed)
4. Someone falls down on an icy sidewalk. (harmed)
5. A factory dumps chemicals into a river. (harmed)

Complete Remainder of the Lesson Later in the Day

9B Air Pollution

Extensions

15 *minutes*

Student Choice

Ask the students which read-aloud they have heard recently that they would like to hear again. If necessary, reread the titles: "Introducing the Earth," "Garbage," "Natural Resources," "Reduce, Reuse, Recycle," "Recycle! Recycle! Recycle!," "Composting," "Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out," or "Pollution." Show key illustrations from previous read-alouds to help students make their choice. You may also want to choose one yourself.

Reread the text that is selected. Feel free to pause at different places in the read-aloud this time and talk about vocabulary and information that you did not discuss previously during the read-aloud. After the read-aloud, ask students if they noticed anything new or different during the second reading that they did not notice during the first reading. Also, ask them to try to express why they like this read-aloud. Remember to repeat and expand upon each response using richer and more complex language, including, if possible, any read-aloud vocabulary.

10 Willy the Water Drop

Lesson Objectives

Core Content Objectives

Students will:

- Compare and contrast fresh water, salt water, and wastewater
- Understand that many living things, including humans, need fresh water to survive, and that there is a limited supply of fresh water on Earth
- Identify sources of water pollution, including factory waste and garbage
- Explain that a water treatment plant can remove unhealthy chemicals and pollutants from water to make it usable again

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Understand print and identify parts of a book/read-aloud, i.e., left-to-right, top-to-bottom sweeping, title/title page, author, illustrator, cover (L.K.9)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)

- Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to predictions (L.K.12)
- Describe illustrations (L.K.13)
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds (L.K.18)
- Distinguish fantasy from realistic text (L.K.22)
- Learn new words from read-alouds and discussions (L.K.24)

Core Vocabulary

evaporate, *v.* To turn from a liquid into a gas
Example: The water drops on the leaves will evaporate into the air by late morning.
Variation(s): evaporates, evaporated, evaporating

pollutants, *n.* Harmful things that make the air, land, or water dirty
Example: Some water pollutants include waste from factories, sewers, and garbage.
Variation(s): pollutant

reservoirs, *n.* Places where water is collected and stored for use.
Example: Many cities have reservoirs to store water.
Variations: reservoir

supply, *n.* The amount of something that is available for use
Example: The supply of crayons is enough for the entire class.
Variation(s): supplies

wastewater, *n.* Water that is no longer clean because it has been used by people to wash or flush away materials such as dirt and chemicals
Example: The wastewater from the factory has made many of the fish in the lake sick.
Variation(s): wastewaters

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**Essential Background Information or Terms**		10
	Purpose for Listening		
Presenting the Read-Aloud	**Willy the Water Drop**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Wastewater		5
Complete Remainder of the Lesson Later in the Day			
Extensions	**Domain-Related Trade Book**	trade book	15

10A Willy the Water Drop

Introducing the Read-Aloud

***10** minutes*

Essential Background Information or Terms

Explain to students that in the next read-aloud they will hear about the journey of a water drop named Willy. Tell students that water drops don't really have names; Willy is a make-believe character; he cannot actually feel things. But his travels are similar to those that real water drops take. As Willy travels from place to place, he turns into different types of water. Explain that the three basic forms of water are fresh water, salt water, and wastewater.

Tell students that fresh water is clean water that you can drink. Salt water is salty water from the ocean or sea. We cannot drink salt water. Wastewater is water that is no longer clean because it has been used by people to wash or flush away materials such as dirt and chemicals. Drinking wastewater can cause animals and humans to become very sick.

Explain that the presence of toxic wastewater is one reason why we need water treatment plants. A water treatment plant is a place that cleans dirty water. Tell students that they will hear about Willy's journey to different places, including a water treatment plant, where Willy will be cleaned and ready to continue on his travels.

Purpose for Listening

Tell students to listen for the different places that Willy goes on his journey as a little drop of water.

Note: Remember to put on your Earth Hat to present the read-aloud and remind students that in the read-aloud, Earth will be pretending to"talk" to them.

Presenting the Read-Aloud — *10 minutes*

Willy the Water Drop

Show image 10A-1: Earth photo showing lots of water

Water is one of the most important natural resources on good old Earth. No matter who you are, what you do, or where you live, you'll always need plenty of water. Luckily, I have a lot of water on my surface.[1] But I'm here to tell you that you need to help take care of the water if you want to help make sure that Earth is always a happy, healthy place to live.

1 Remember, there is more water than land on the surface of the earth.

Show image 10A-2: Water drops on leaves

Water is such an important natural resource that I decided to tell you a story about a special little drop of water that I named Willy. I found Willy a few weeks ago resting on this leaf with a bunch of other water drops.[2]

2 Where do you think the water drops might have come from?

Yes, Willy is just one little drop of water—not much compared to all the water there is on Earth. But you should know that every single drop of water is important, especially fresh water like Willy. Fresh water is what you need when you're thirsty, or when you need to take a bath, or for any of the thousand other things you use water for. It's very precious, and less than one percent of the water on my surface is fresh![3]

3 *One percent* means that for every one hundred drops of water, only one drop is fresh water.

You might be surprised to learn that Willy the Water Drop is actually a very busy fellow. Like most water drops, he is always on the move. I decided to follow Willy and see what happened to him after he landed on this leaf.

Show image 10A-3: Littered river

Willy wasn't on the leaf for long. A breeze came along and shook the leaf, sending Willy into this winding river. I wondered what would happen to Willy when he washed through all the litter in this river. Sure enough, he picked up a little dirt and grime along the way.[4]

4 Willy used to be fresh water, but do you see how easily he becomes dirty?

Show image 10A-4: Factory on a river

Later, Willy the Water Drop passed a big factory where people were making chemicals. People produce many different things in factories. Unfortunately, almost all factories produce **wastewater.**[5] Whatever they're making inside the factory—whether they're mixing paint, or making ink, or mopping the floors at the end of the day—people are using water. That dirty water needs to go somewhere when they're done with it.

5 Wastewater is water that is no longer clean because it has been used by people to wash or flush materials such as dirt and chemicals.

Wastewater is the dirty water that comes out of factories like this one. But it doesn't go to the landfill like the trash from your kitchen. Instead, it goes down the drain and sometimes ends up back in a river or other body of water.

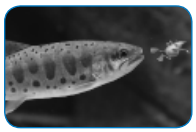
Show image 10A-5: Wastewater pipe[6]

Willy went past this wastewater pipe on the other side of the factory. Trust me, you don't even want to know what was coming out of this pipe. This pipe, and many others like it, can pollute the fresh water **supply.**[7]

6 What do you think is coming out of this pipe?

7 *Supply* means the amount of something available for use. The fresh water supply is the amount of fresh water available to all the creatures on Earth.

What's the water supply? That's pretty much the whole point of this story. Willy the Water Drop is part of the fresh water supply—or at least he was when he first started out on the leaf. You, and all the creatures and plants on Earth, depend on the fresh water supply. There's plenty for everyone as long as everyone is careful not to use too much or pollute it.



Show image 10A-6: Fish

One morning in the river, Willy passed through a trout's gills. Remember how you learned that polluted air is bad for your lungs? Well, polluted water is bad for a fish's gills, too. When this fish swam by, Willy the Water Drop passed right through its gills. Any **pollutants,** or dirty harmful things, that Willy picked up when he passed the litter or wastewater pipe could have been left inside this fish. That's not good for the fish!

Show image 10A-7: Water reservoir

Many cities get their water from **reservoirs.** And this is exactly where Willy the Water Drop ended up after a week or so in the river. A reservoir is a place made by people to collect and store water. Reservoirs are created by building a dam, like the one in this picture, across a river. By damming the river, people are able to make a big lake.

Show image 10A-8: Water treatment plant

After Willy the Water Drop floated around in the reservoir for a few days, he went down a pipe and into this water treatment plant. This is like a big bathtub, only here they are actually cleaning water instead of using water to clean something else. After Willy sat in this treatment plant for a while, and the people were sure that he didn't have any more pollutants or other dirty stuff in him, he was ready to go through the pipes to someone's home.

Show image 10A-9: Child washing hands

Once he left the treatment plant, Willy went into another pipe, and then another and another, until finally he ended up flowing out of someone's bathroom faucet. A boy was washing his hands before dinner. That's a good thing, because there were all sorts of germs on that boy's hands. This is why Willy likes being a water drop: He knows he's helping boys and girls grow up to be healthy and clean.

Show image 10A-10: Drain[8]

Willy the Water Drop was happy to have helped the boy get ready for dinner, but then it was straight down the drain for Willy! He went down the sink drain and into the drainpipe.

Do you think that was the end of Willy the Water Drop? Is that the last we'll ever see of him? Actually, the answer is no. Willy will be back again. Right now, he could be in a wastewater pipe, or floating around in a reservoir. However, there's really no telling exactly where he'll end up.

8 Where is Willy going now?

Show image 10A-11: Treated water coming out of a pipe

Hopefully, Willy will go through another water treatment plant so they can clean off all the polluted sewage before he is washed out of a big pipe like this and into another river.

Show image 10A-12: Sunny ocean

Once he's back in the river, Willy could flow to another reservoir. He could flow to the ocean. Maybe a bird will drink him! Or, maybe Willy will wind up in a sunny spot like this. The heat from the sun will make him **evaporate,** turning him into water vapor. Instead of being a water drop, he'll be part of the air for a while. He'll float up into the sky, and there he'll become part of a cloud.

You heard it right! Clouds are actually fluffy bundles of tiny little water droplets up in the sky. The water in clouds was once part of a river or lake or stream on the surface of good old Earth.

Once he becomes part of the clouds again, Willy the Water Drop will float across the sky until, one morning . . .

Show image 10A-13: Water drops on a leaf

It will rain, and there you'll find Willy, sitting on a leaf waiting to start his journey all over again. Perhaps he'll end up in a bathtub or swimming pool near you!

Discussing the Read-Aloud — *15 minutes*

Comprehension Questions (10 minutes)

1. Which important natural resource did good old Earth tell you about in this read-aloud? (water)
2. What is the difference between fresh water, salt water, and wastewater? (You can drink fresh water; salt water is salty; wastewater is dirty and will make you sick if you drink it.)
3. Where does wastewater come from? (factories and people's homes)
4. Why are water treatment plants important? (They turn dirty water into clean water so we can use it again.)
5. Why is it important to have clean water drops like Willy? (We need clean water to drink, take baths in, and wash our clothes.)
6. What are clouds made of? (water droplets)
7. *Think Pair Share:* Do you think what happens in this read-aloud could really happen? Or is it pretend, or fantasy? (It is pretend because water drops do not have feelings and names; however, the journey that a water drop can take is real.)

Word Work: Wastewater (5 minutes)

1. In the read-aloud today, we heard that Willy went through a pipe with *wastewater* in it.
2. Say the word *wastewater* with me.
3. Wastewater is water that is no longer clean because it has been used by people to wash or flush away materials such as dirt and chemicals. Wastewater can come from factories or homes.
4. The wastewater from the factory was dirty from chemicals and other pollutants used to mix paint.

5. Give one reason why wastewater is a bad thing. Try to use the word *wastewater* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "Wastewater is bad because . . .")
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: If any of the things I describe are wastewater, say, "wastewater." If any of the things I describe are not wastewater, say, "not wastewater."

1. water that you drink (not wastewater)
2. water that comes out of a pipe from a factory (wastewater)
3. water that is flushed down the toilet (wastewater)
4. water that comes out of your kitchen faucet (not wastewater)
5. water that is kept in a reservoir (not wastewater)

Complete Remainder of the Lesson Later in the Day

10B Willy the Water Drop

Extensions

15 minutes

Domain-Related Trade Book

Refer to the list of recommended trade books in the introduction at the front of this anthology and choose a water-themed book to read aloud to the class. One suggestion is *Why Should I Save Water?,* by Jen Green and Mike Gordon.

Introduce the book by discussing the cover and title page. Tell students the author's name and the illustrator's name, using those terms. As you read, use the same strategies that you have been using when reading the read-aloud sections in this anthology—pause and ask occasional questions; rapidly clarify critical vocabulary within the context of the read-aloud; etc.

After you finish reading the trade book aloud, lead students in a discussion about the ways in which this book's water information relates to what you have learned about taking care of the earth in this domain. If you have read *Why Should I Save Water?,* tell the students: "Water is very important in our everyday lives. What are some ways in which you can conserve water at home?"

11 Goodbye from Good Old Earth

Lesson Objectives

Core Content Objectives

Students will:

- Identify possible solutions for the problems of garbage, litter, pollution, and conserving natural resources discussed throughout the domain
- Understand why people have a special responsibility to take care of the earth

Language Arts Objectives

Students will:

- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc. (L.K.1)
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age (L.K.3)
- Listen to and understand a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems (L.K.11)
- Describe illustrations (L.K.13)
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud (L.K.14)
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc. (L.K.15)

- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering "why" questions that require recognizing cause/effect relationships (L.K.17)
- Learn new words from read-alouds and discussions (L.K.24)
- Retell important facts and information from a read-aloud (L.K.30)
- With assistance, categorize and organize facts and information within a given domain (L.K.32)

Core Vocabulary

carpool, *v.* To travel in a car with other people, sharing the costs and often taking turns as the driver
Example: My father and our neighbor carpool to work.
Variation(s): carpools, carpooled, carpooling

effort, *n.* A serious attempt; a try
Example: Recycling takes time and effort, but helps to save Earth's natural resources.
Variation(s): efforts

organize, *v.* To plan an activity
Example: We can organize a bake sale and donate the money to our school.
Variation(s): organizes, organized, organizing

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	**What Have We Already Learned?**	KWL Chart	10
	Purpose for Listening		
Presenting the Read-Aloud	**Goodbye from Good Old Earth**	Earth Hat	10
Discussing the Read-Aloud	**Comprehension Questions**		10
	Word Work: Effort		5
Complete Remainder of the Lesson Later in the Day			
Extensions	**Brainstorming Links**	chart paper	15

11A Goodbye from Good Old Earth

Introducing the Read-Aloud

***10** minutes*

What Have We Already Learned?

Talk about what is listed in the 'L' column of the chart to provide a quick review of what the students have already learned over the course of this domain about taking care of the earth. As students respond, refer back to both the 'K' and 'W' portions of the chart to see if what they have learned relates to what was written in the 'K' or 'W' columns. In the event that something learned in the 'L' column contradicts something that was recorded earlier in the 'K' column, this should be discussed. For example, you may say, "When we were talking about what we knew, we said that there was nothing we could do to help stop pollution. What do you think now?" Then, cross out the inaccurate information in the 'K' column.

Now tell the students that they have heard two additional read-alouds since you last worked on the KWL chart. Tell them that you are going to show them a picture or two from each of those read-alouds (Lessons 9–10) to help them remember some things they learned in those read-alouds. After showing each set of images and discussing them, assist the students in articulating new ideas that they have learned and then add them to the 'L' column of the chart.

- Remind the students that they listened to a read-aloud about air pollution. Show image 9A-3 (view of city with smog) and ask students to describe what they see in this picture. Ask them to try to remember some of the things that create air pollution. Now show them image 9A-2 (lungs) and ask if they remember what this is and why air pollution is harmful.
- Remind the students that they heard a read-aloud about Willy the Water Drop. Show image 10A-2 (water drops on leaves) and remind them that Willy started out as clean fresh water. Show image 10A-5 (wastewater pipe) and ask students if they

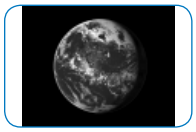
remember what was coming out of this pipe. What happened to Willy after traveling through this pipe? Why is polluted water harmful?

Purpose for Listening

Tell students that today's read-aloud is the last read-aloud about taking care of the earth. Ask them to listen carefully as good old Earth gives them some last suggestions about how they can help to take care of their planet. Tell them to try to remember the different things that Earth says they can do to help solve the earth's problems.

Note: Remember to put on your Earth Hat to present the read-aloud and remind students that in the read-aloud, Earth will be pretending to "talk" to them.

Presenting the Read-Aloud — *10 minutes*



Goodbye from Good Old Earth

Show image 11A-1: A parting shot of Earth

Well, this is probably the last time you'll see a picture like this of good old Earth, at least for a while. Of course, it's not the last time you'll see me at all! You see me—or at least part of me—every time you open your eyes.

Before I say goodbye, I want to share a few interesting things with you. Listen closely, and you will learn some amazing things that you and other people can do to take care of me.

Remember: It's important that everyone do his or her part. If every person accepts the responsibility to do a few little things, then these little things will start to add up to many big things!

So, pitch in! Think about what I've taught you, and spread the words *reduce, reuse,* and *recycle*—tell your friends and families that they need to help take care of the earth, too. Don't litter, and if you see a place where other people have littered, ask an adult to help you **organize** a litter pick-up.[1] You and your family can also make sure you recycle paper, cans, cardboard boxes, glass, and plastic that you use, or even start a compost pile with your leftover scraps so less trash goes to the landfills.

1 Don't throw trash out where it doesn't belong. And if you see a place where other people have thrown their garbage out on the ground or in a lake or river, ask a grown-up to help you plan a way to clean up that area.

2 What symbol do you see on this bin?

Show image 11A-2: Recycling bin[2]

Set up recycling bins in your home and school. Make a plan to get the materials from the bin to the recycling center. And stick to your plan! If you collect a lot of recyclable materials but never bother to take them to the recycling center, you've only taken the first important step necessary in recycling.

If you want to make sure that the recycling goes where it needs to go, then make it your responsibility to take care of it. Make sure everything is properly sorted and out on the curb when the recycling truck comes by. If your neighborhood doesn't have a

recycling service, find out where your closest recycling center is. Then, work with a parent or another relative with a car to set up one or two days each month when you will take a trip to drop everything off at the recycling center.

Show image 11A-3: Family riding bikes [3]

3 Tell me what you see in this picture. Can you think of why riding a bike might be better for the earth than driving a car?

Another thing you can do is try to use your cars a little less. People are good walkers, and cars aren't the only things with wheels. Instead of driving to a place that's just around the corner, maybe you can walk or ride a bicycle. That way you won't burn any gasoline, and you don't put any pollution into the air. Plus, the exercise is good for you. Of course, living *closer* to the places you often need to get to builds nice communities and helps people drive their cars a lot less, too.

If you or your parents absolutely have to drive, find out if there's any way you can **carpool** with someone else. Carpooling is when two or more people ride in a car together to the same place. Do you understand how this reduces air pollution? If four people decide to drive to the playground, the store, or the office together as part of a carpool, that means only one car engine is burning gasoline instead of four engines.

Show image 11A-4: Bus [4]

4 What is this a picture of? How many people could ride in it at one time?

Or, encourage your family to use the bus or train if you live in a city or town where they are available. Buses are a great way to get lots of people to where they need to go and to reduce the number of cars on the road. Anything you can do to reduce the number of cars on the road will also reduce the amount of pollution in the air.

Show image 11A-5: Child planting tree

Another simple thing you can do to fight air pollution is to plant trees and gardens. Trees and other plants take in certain kinds of pollution—including exhaust from cars and trucks. The trees and plants put clean oxygen back into the air, which humans need to breathe. That means trees actually help clean the air. Every single tree matters, so plant trees whenever you can.

And, of course, use less paper and recycle used paper whenever you can. Reduce the amount of paper you use, and you'll reduce the amount of trees that need to be cut down. That way, there will be more trees available to clean the air.

Show image 11A-6: Light switch turned off

One of the simplest things you can do is to try to use less electricity. Whenever you are watching television, working on a computer, or turning on a lamp, you are using electrical power. If you use less electrical power, then many power plants won't need to burn quite as much coal, and that will mean less air pollution. So, when you turn off a lamp or a television, you are actually helping to keep the air clean. Whenever you walk out of a room for a while, remember to turn off the light. If it's daytime, try to open the blinds or curtains and let in some natural light so you don't have to use as much electricity.

Show image 11A-7: Child washing hands

Don't forget that living things, including humans, need fresh water to survive, and that there is a limited supply of fresh water on Earth. You can do your part in conserving water by not wasting it. We use water for baths, washing dishes, flushing the toilet, cooking, and watering our gardens and yards. The list goes on and on. Remember to use only what you need. People can conserve water by turning off the faucet while brushing their teeth or by taking shorter showers. People can make sure that they turn off the sprinklers in the summer when the weather report calls for rain. Every water drop counts!

Show image 11A-8: Happy children in nature

Most important, I want to finish by reminding you that you are part of a truly beautiful and amazing world. Whether you live in the city or in the country, whether you live in a big apartment building, in a neighborhood, or on a farm, you are part of this world, and the things you do can affect the whole planet.

People sometimes pollute and create all sorts of problems for the environment. But people also have the power to find solutions and to take care of the environment. Make it a point to be part of the solution! If every person makes a small **effort**[5] to help reduce, reuse, and recycle, it adds up and makes a *big* difference in taking care of good old Earth.

5 or seriously tries

Discussing the Read-Aloud ***15*** *minutes*

Comprehension Questions (10 minutes)

1. Name some things you and your family can do to help solve the trash problem. (We can organize a litter pick-up; we can recycle; we can make a compost pile.)
2. Name some things you and your family can do to help solve the problem of air pollution. (We can plant trees or other plants that will clean the air; we can carpool, walk, or ride bikes instead of always riding in the car; we can try to live closer to the places we go to often so we have to drive less; we can be sure to turn off things that use electricity, like lights or the television, when we are not using them.)
3. How does planting a tree clean the air? (Trees and plants take in the dirty air and give off oxygen. So, if you plant a tree, you will be helping to clean the air.)
4. How does turning off the lights reduce pollution? (The electricity to light up a room comes from a power plant. The less electricity you use, the less a coal-fired power plant pollutes the air or water.)
5. Name one way you can conserve fresh water. (Only use the amount of fresh water you need. You can conserve water by turning off the water when brushing your teeth, taking shorter showers, etc.)
6. *Think Pair Share:* What do you think might happen to the land or the water or the air on Earth if each person does not take responsibility to take care of the earth? (Answers may vary.)

Word Work: Effort (5 minutes)

1. In the read-aloud today, we heard that if every person makes a small *effort* to help reduce, reuse, and recycle, it adds up and makes a big difference in taking care of good old Earth.
2. Say the word *effort* with me.
3. *Effort* means a serious attempt or a try at something.
4. If people make an effort to reduce air pollution, we will conserve more of our natural resources.
5. Tell me about some way that you would make an effort to help take care of the earth. Try to use the word *effort* when you tell about it. (Ask two or three students. If necessary, guide and/or rephrase the students' responses: "I will make an effort to take care of the earth by . . .")
6. What's the word we've been talking about?

Use a *Making Choices* activity for follow-up. Directions: If any of the sentences I read describe an effort to take care of the earth, say, "effort." If anything I read does not describe an effort to take care of the earth, say, "no effort."

1. dropping my apple core on the playground after I eat it (no effort)
2. throwing my plastic water bottle into the correct recycling bin (effort)
3. composting my leftover food scraps in the compost bin (effort)
4. turning off the lights when I leave the room (effort)
5. letting the water faucet run while I brush my teeth (no effort)

Complete Remainder of the Lesson Later in the Day

11B Goodbye from Good Old Earth

Extensions

15 minutes

Brainstorming Links

Tell students that over the course of this domain they have heard about different problems that people create on Earth, such as landfills and pollution. Explain to the students that, in this activity, they are going to brainstorm possible solutions to fix these problems.

Say the word *landfill.* Ask students what problems come to mind when they think about landfills. Now ask students to think about possible solutions that they might actually put into practice in the classroom and/or in the school that might help solve some problems related to landfills. Ask them to share their ideas; record all of the ideas on chart paper. If students cannot think of any solutions to the problem, give them hints, such as, "What about the three Rs? Do you think they could help solve this problem?"

Next, say the word *pollution.* Ask students what problems come to mind when they think about land, water, and air pollution. Now ask students to think about possible solutions that they might actually put into practice in the classroom and/or in the school that might help solve some problems related to pollution. Ask them to share their ideas; record all of the ideas on chart paper.

Discuss these possible solutions and then choose one or more, if possible, to actually put into action.

PP2 Pausing Point 2

Note to Teacher

This is the end of the read-alouds about taking care of the earth. You may choose to pause here and spend one to two days reviewing, reinforcing, or extending the material taught thus far.

If you do pause, you may have students do any combination of the activities listed below. The activities may be done in any order. You may wish to do one activity on successive days. You may also choose to do an activity with the whole class or with a small group of students who would benefit from the particular activity.

Core Content Objectives Up to This Pausing Point

Students will:

- Identify garbage as being a problem and the various means of garbage disposal in terms of a solution
- Understand that humans generate large amounts of garbage, which must be disposed of
- Understand that land, air, and water all suffer from different types of pollution, and all types of pollution are caused by human activities
- Understand that if people are careful and creative, they can help reduce pollution
- Understand that air pollution from one location can make even the air that is far away in other places around the world dirty
- Identify sources of air pollution, including cars and electricity produced by coal-fired power plants
- Understand the effect of air pollution on human health
- Explain how to reduce air pollution by conserving natural resources
- Compare and contrast fresh water, salt water, and wastewater

- Understand that many living things, including humans, need fresh water to survive, and that there is a limited supply of fresh water on Earth
- Identify sources of water pollution, including factory waste and garbage
- Explain that a water treatment plant can remove unhealthy chemicals and pollutants from water to make it usable again
- Identify possible solutions for the problems of garbage, litter, pollution, and conserving our natural resources discussed throughout the domain
- Understand why people have a special responsibility to take care of the earth

Activities

Image Review

Show the images from any read-aloud again, and have students retell the read-aloud using the images.

Image Card Review

Materials: Image Cards 12–18

Have students review Image Cards 12–18. Help students identify the image cards and brainstorm what more has been learned about taking care of the earth. Then pass out Image Cards 12–18 to various students. Have students do a *Think Pair Share* for each image card. For example, for the picture of a family riding bikes, a student might ask, "What other ways are there to reduce air pollution?" or "Why is riding a bike better than driving a car?"

Key Vocabulary Brainstorming

Materials: Chart paper

Give the students a key domain concept or vocabulary word such as *pollution.* Have them brainstorm everything that comes to mind when they hear the word, such as *land, air, water,* etc. Record their responses on a piece of chart paper for reference.

Domain-Related Trade Book or Student Choice

Materials: Trade book

Read an additional trade book to review a particular concept; refer to the books listed in the domain introduction. You may also choose to have the students select a read-aloud to be heard again.

Guest Speakers

Invite parents or trusted community members whose careers or volunteer work help to take care of the earth. For example, you may invite someone who works at a water treatment plant or reservoir, or someone who maintains your local parks. Ask your guests to bring in any photographs or other objects that will help to show students what they do to help take care of the earth. You will want to share with your guest speakers, ahead of time, what you have already discussed in class so that they are better able to address the students.

Class Book: Reduce, Reuse, Recycle

Materials: Drawing paper, drawing tools

Tell the class or a group of students that they are going to make a class book to help them remember what they have learned in this domain. Have the students brainstorm important information about the importance of taking care of the earth by reducing land, water, and air pollution, and recycling one of earth's most precious natural resources: fresh water. Have each student choose one idea to draw a picture of and ask him or her to write a caption for the picture. Bind the pages to make a book to put in the class library for students to read again and again.

Reducing Air Pollution

Students have now learned about the harmful affects of air pollution to people, animals, and planet Earth. Discuss with students all the differing ways they can help to reduce air pollution and make a list of their suggestions. Suggestions may include turning off the lights when leaving a room; walking or riding a bike instead of using a car for short trips; planting trees; reusing and recycling goods; carpooling; etc.

Air Quality Color Check

Materials: Drawing paper, crayons in the following colors: green, yellow, orange, red, and purple

Tell the class or small group that since they have learned about how to reduce air pollution, they can now also check to see how much pollution is in the air. Explain to students that local weather or news stations provide a daily air quality color check to let people know how good or bad the air is for that day. Have students draw a caterpillar with five body sections and color each body section in this order starting with the tail: green, yellow, orange, red, and purple. Tell students that the best color check for the air they breathe is green and the worst is purple. Have students share what they can do to minimize air pollution so that the air they breathe will always get a green quality check.

Riddles for Core Content

Ask the students riddles such as the following to review core content:

- We are three types of pollution that affect planet Earth. What are we? (land, water, air)
- We create all the pollution on planet Earth. Who are we? (people)
- I am a form of pollution that is very harmful to people's lungs. What am I? (air pollution; smog)
- I create electricity using coal, but I am also an enormous source of air pollution. What am I? (coal-fired power plant)
- I am a natural resource that can be found in rivers, clouds and oceans. What am I? (water)
- We are three types of water found on planet Earth. What are we? (fresh water, salt water, and wastewater)
- I turn wastewater into fresh clean water that can be reused again. What am I? (water treatment plant)
- We are two sources of water pollution. What are we? (factory waste and garbage)

DA Domain Assessment

This domain assessment evaluates each student's retention of the core content targeted in *Taking Care of the Earth.*

10 Domain Assessment (Instructional Master DA-1)

Directions: I am going to read a sentence about an action someone does that affects the earth. First, you will listen to the sentence that I read. Next, you will decide if that action would help to take care of the earth or not. If the action is true and is an example of taking care of the earth, circle the 'T.' If the action is false and is not an example of taking care the earth, circle the 'F.'

1. If Nadia collects the vegetable leftover scraps after dinner and puts them in the compost pile, she is taking care of the earth. (T)
2. If Rob turns off the bathroom light on his way out, he is taking care of the earth. (T)
3. If Leila lets the water run for fifteen minutes while she washes her hands, she is taking care of the earth. (F)
4. If Jeannette throws her paper bag on the ground after she finishes her lunch, she is taking care of the earth. (F)
5. If Cate draws on both sides of a clean piece of paper before recycling it, she is taking care of the earth. (T)
6. If Sam's dad rides his bike to work every day instead of driving his car, he is taking care of the earth. (T)
7. If the Smith family lives close to their work place and their kids' school so they drive their car less, they are taking care of the earth. (T)
8. If James uses six paper towels to dry off his hands, he is taking care of the earth. (F)

For Teacher Reference Only:

Copies of *Tell It Again! Workbook*

1B-1

Dear Parent or Guardian,

Over the next couple of weeks, your child will be learning about how to take care of the earth. Each day s/he will be listening to a read-aloud that shows the beauty of Earth and explains why we all have a responsibility to keep Earth beautiful and clean. S/he will also learn about these three words *reduce, reuse, recycle,* and differing ways in which s/he can help to keep Earth a safe place to live.

Below are some suggestions for activities that you may do at home to reinforce what your child is learning about taking care of the earth.

1. Use the Word *Responsibility*

Your child has learned and has been using the word *responsibility* to talk about actions we should all take to keep Earth clean. Ask your child: "What responsibility do you have in keeping the earth a beautiful place to live?" Encourage your child to use this word in situations other than ones in which you talk about taking care of the earth. Ask: "What are some responsibilities you have at home? What are some responsibilities you have at school? How are they different from your teacher's responsibilities?"

2. How to Clean Up Earth

Give your child prompts, such as "What should I do if I have an empty soda can? Should I throw it away in the trash can? What about old newspapers? What should I do with them? How can I reduce, reuse, and recycle these items?" Using these prompts, have your child give instructions on how to reduce, reuse, and recycle.

3. Draw Nature and Its Resources

Have your child draw a nature scene, such as a forest, an ocean, or the sky filled with birds. Ask your child, "What natural resource is in your nature drawing?" Then ask your child what would happen if that natural resource was used up completely. Ask, "What would happen to the scene you drew?" Discuss with your child why it is important to conserve natural resources, such as trees, clean water, and clear skies.

4. Borrow a Book

Reading to your child is the single most important thing you can do to encourage his/her literacy development. The local library has many books about taking care of the earth, including books about conserving natural resources and recycling. Check one out and

read it with your child. Encourage your child to share the information s/he has learned in school.

Be sure to praise your child whenever s/he shares what has been learned at school.

3B-1

Name _____

Directions: There are four pictures of natural resources. Each natural resource has been assigned a letter. Your teacher will read the names of the natural resources to you. Next to each picture below, write the letter of the natural resource that the object is made from, or what natural resource is being used. The first one has been done for you.

A

Tree

C

Coal

B

Water

D

Fish

1. 

2. 

3. 

A

4. 

5. 

6. 

3B-1

Name **Answer Key**

Directions: There are four pictures of natural resources. Each natural resource has been assigned a letter. Your teacher will read the names of the natural resources to you. Next to each picture below, write the letter of the natural resource that the object is made from, or what natural resource is being used. The first one has been done for you.

A

Tree

C

Coal

B

Water

D

Fish

1. 

A

2. 

D

3. 

C

4. 

B

5. 

A

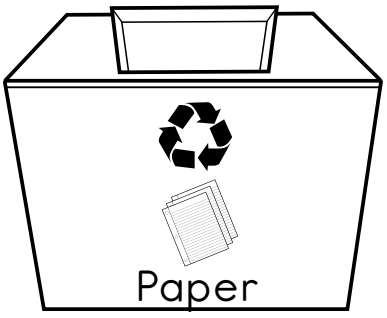
6. 

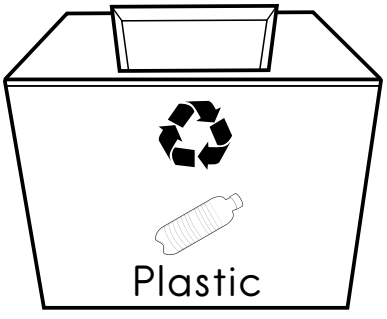
B

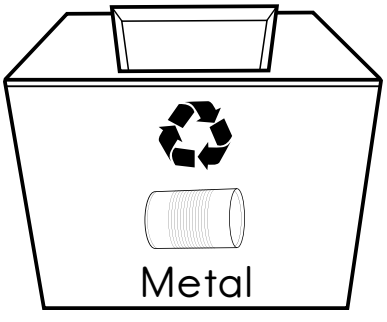
5B-1

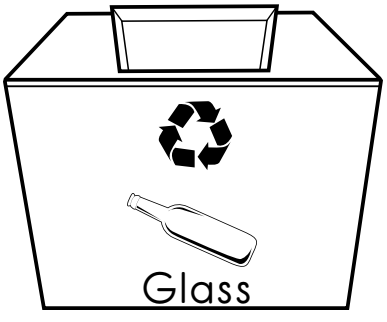
Name _____

Directions: Your teacher will read the label for each of the recycling bins on the right-hand side of the page. Draw a line from each recyclable item to the bin in which it belongs.





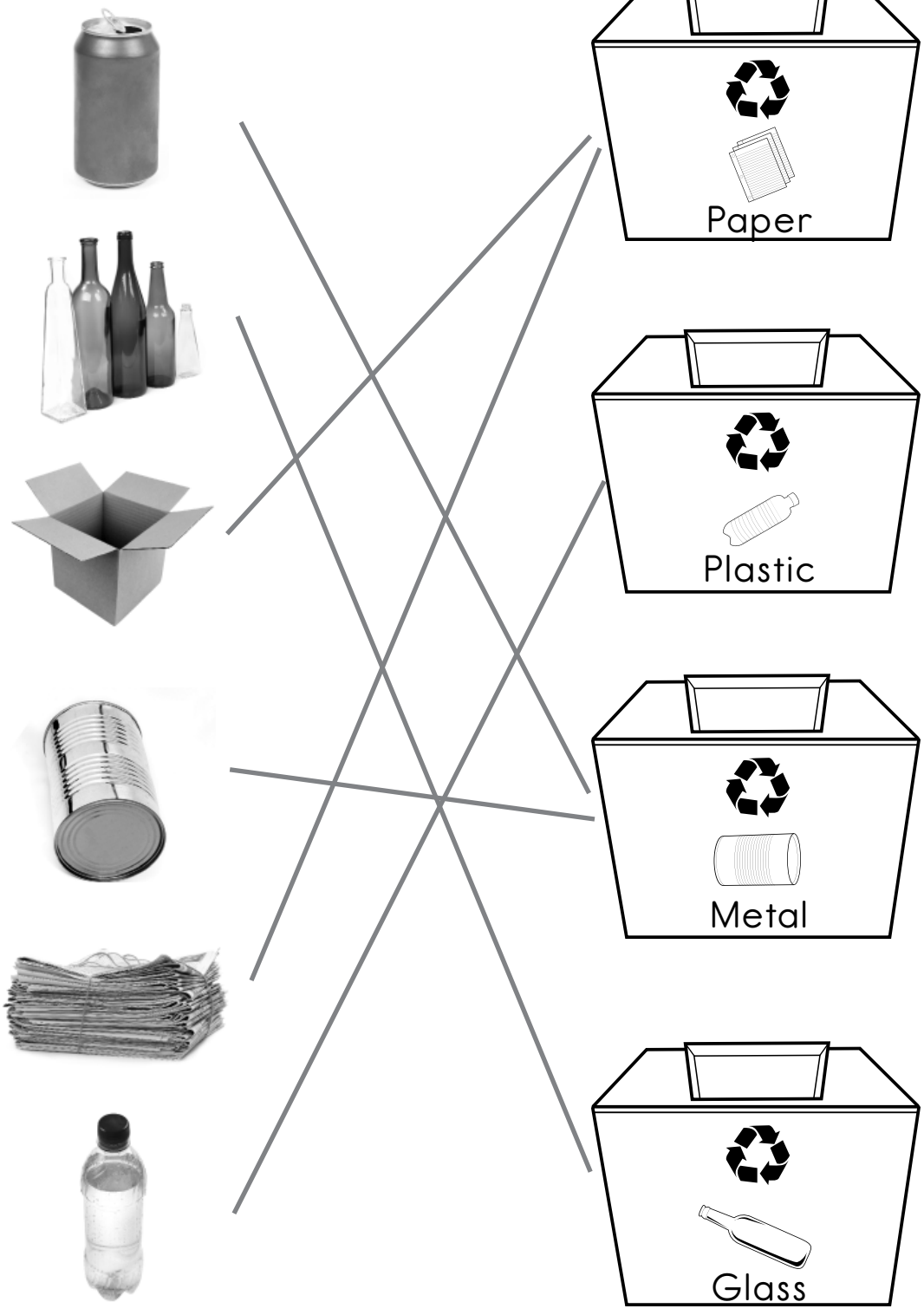




5B-1

Name _____ **Answer Key**

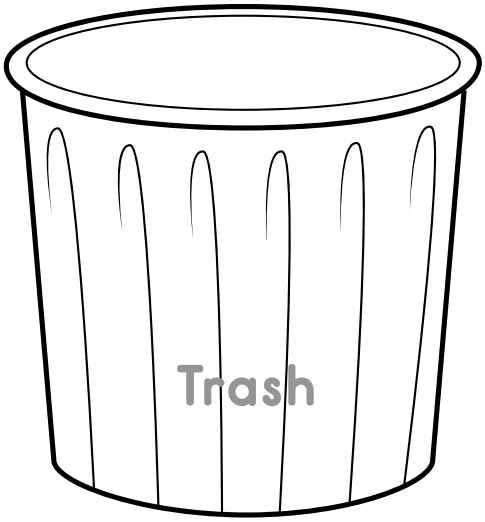
Directions: Your teacher will read the label for each of the recycling bins on the right-hand side of the page. Draw a line from each recyclable item to the bin in which it belongs.

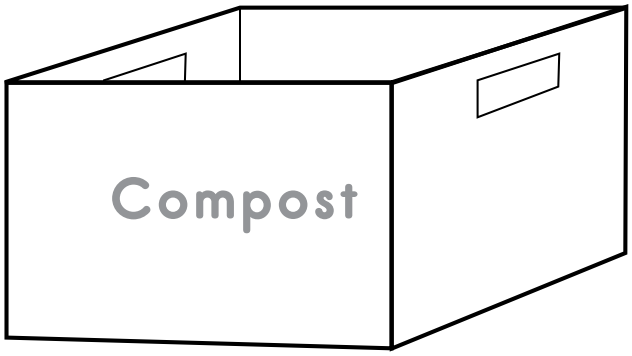


6B-1

Name _____

Directions: Cut out each of the four pictures at the bottom of the page. Your teacher will read the label for each of the bins at the top of the page. Decide whether the picture is trash or compost. Then, glue each picture into the proper bin.

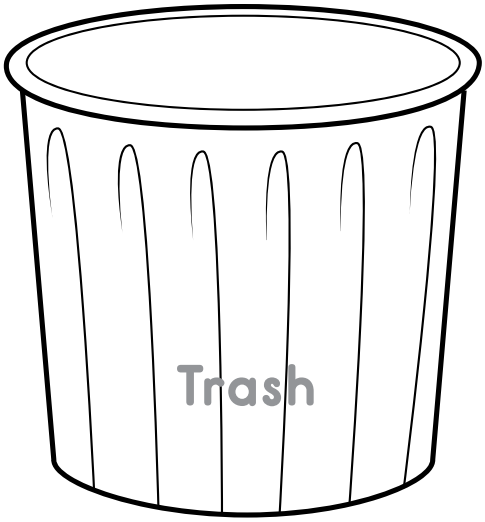


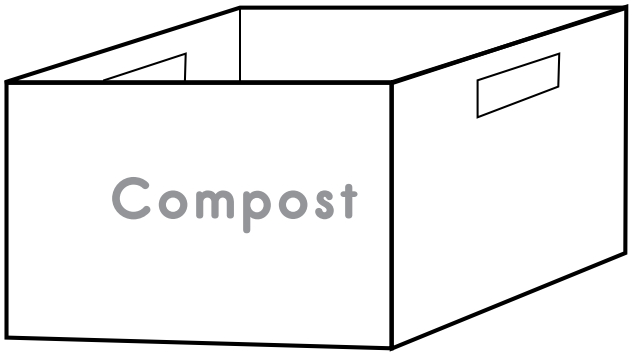


6B-1

Name **Answer Key**

Directions: Cut out each of the four pictures at the bottom of the page. Your teacher will read the label for each of the bins at the top of the page. Decide whether the picture is trash or compost. Then, glue each picture into the proper bin.





T

C

C

C

C

T

6B-2

Dear Parent or Guardian,

Your child is continuing to learn about taking care of the earth this week. S/he has learned more about recycling and about different types of pollution in the environment. Today, s/he learned about a way to recycle food called *composting.* Your child will soon hear a classic Shel Silverstein poem titled, "Sarah Cynthia Silvia Stout Would Not Take the Garbage Out," about a girl who would not take out the garbage.

Below are some suggestions for activities that you may do at home to reinforce what your child is learning about taking care of the earth.

1. Use the Word *Solution*

Your child has learned and has been using the word *solution* to talk about addressing the problems of pollution and waste. Ask your child: "Can you name a few solutions you learned about that help to keep Earth clean?" Encourage your child to use this word in situations other than ones in which you talk about taking care of the earth. Ask, "What is the solution to the math problem two plus one? What is the solution to a dirty room?"

2. Recycle! Recycle! Recycle!

At home, have your child help sort the recyclable items into plastics, paper, glass, and metals. Keep these items in separate bins. If possible, take your child to a recycling center and point to the appropriate bins as you place the recyclable items into them. As you do this, say, "Recycling helps to reduce trash in landfills. It helps to create a cleaner world."

3. Sayings and Phrases: A Place for Everything, and Everything in Its Place

Your child has learned the saying "A place for everything, and everything in its place." Talk with your child about its meaning. Use this saying at home or out in public to demonstrate how garbage has its proper place in a trash can, recyclable bin, or compost pile.

4. Borrow a Book

Reading to your child is the single most important thing you can do to encourage his/her literacy development. The local library has a variety of books about taking care of the earth, including books about pollution and recycling. Check one out and read it with your child. Encourage your child to share the information s/he has learned in school and compare it to what you read in the book.

5. Saving Water

When your child brushes his/her teeth or takes a bath or shower, remind him/her that s/he needs to remember to conserve water. Say, "We need to conserve water, so that there is enough fresh water for everyone to use."

6. Saving Electricity

When your child is the last one to leave a room, remind him/her to turn off the lights to help conserve electricity. Say, "We need to conserve electricity, so that we don't add more air pollution to planet Earth.

Be sure to praise your child whenever s/he shares what has been learned at school.

DA-1

Name _____

Directions: Your teacher will read read a sentence about an action someone does that affects the earth. First, you will listen to the sentence. Next, you will decide if that action would help to take care of the earth or not. If the action is an example of taking care of the earth, circle the 'T.' If the action is not an example of taking care of the earth, circle the 'F.'

1.	T	F
2.	T	F
3.	T	F
4.	T	F

5.	T	F
6.	T	F
7.	T	F
8.	T	F

DA-1

Name _____ **Answer Key**

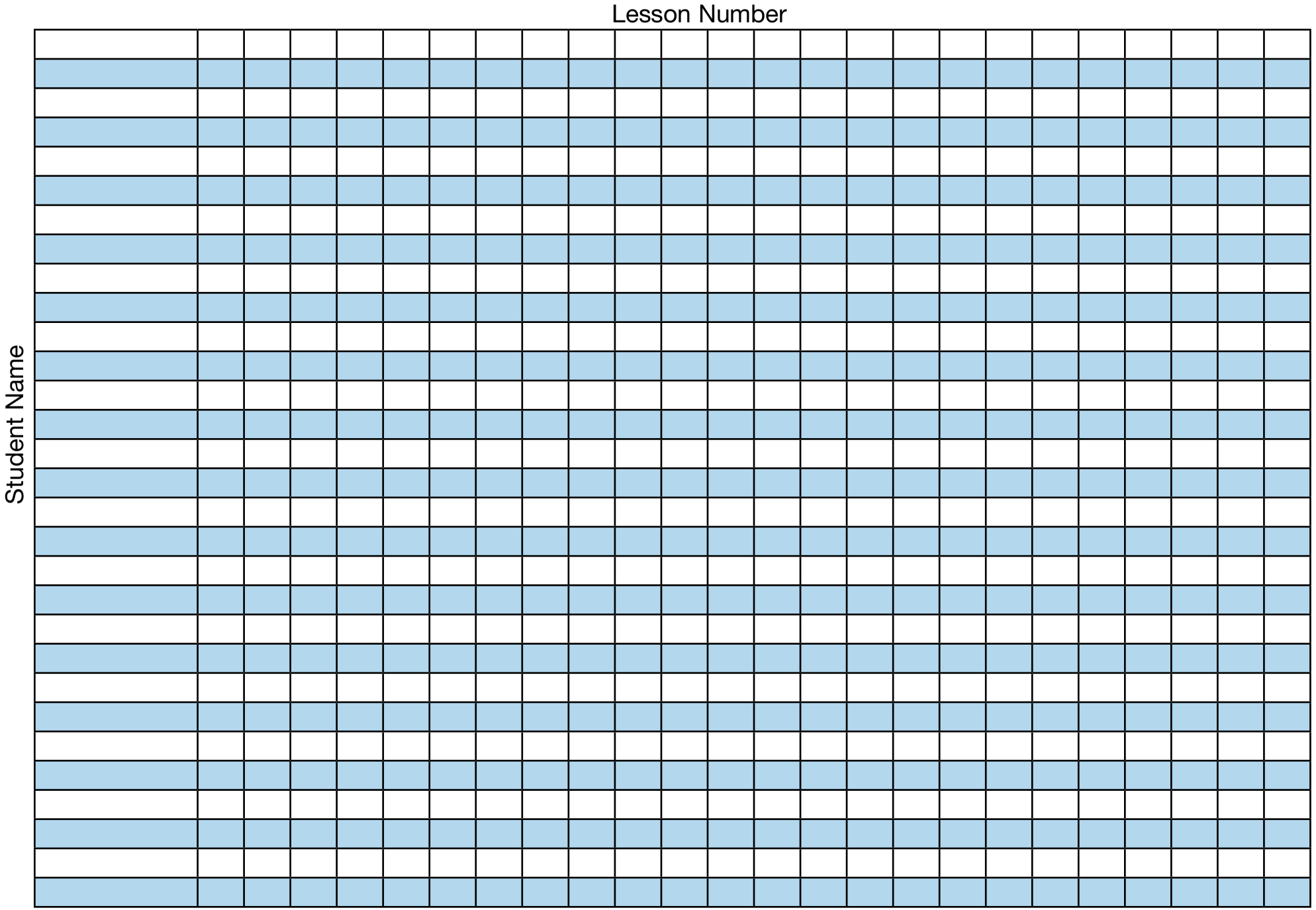
Directions: Your teacher will read read a sentence about an action someone does that affects the earth. First, you will listen to the sentence. Next, you will decide if that action would help to take care of the earth or not. If the action is an example of taking care of the earth, circle the 'T.' If the action is not an example of taking care of the earth, circle the 'F.'

1.	(T)	F
2.	(T)	F
3.	T	(F)
4.	T	(F)

5.	(T)	F
6.	(T)	F
7.	(T)	F
8.	T	(F)

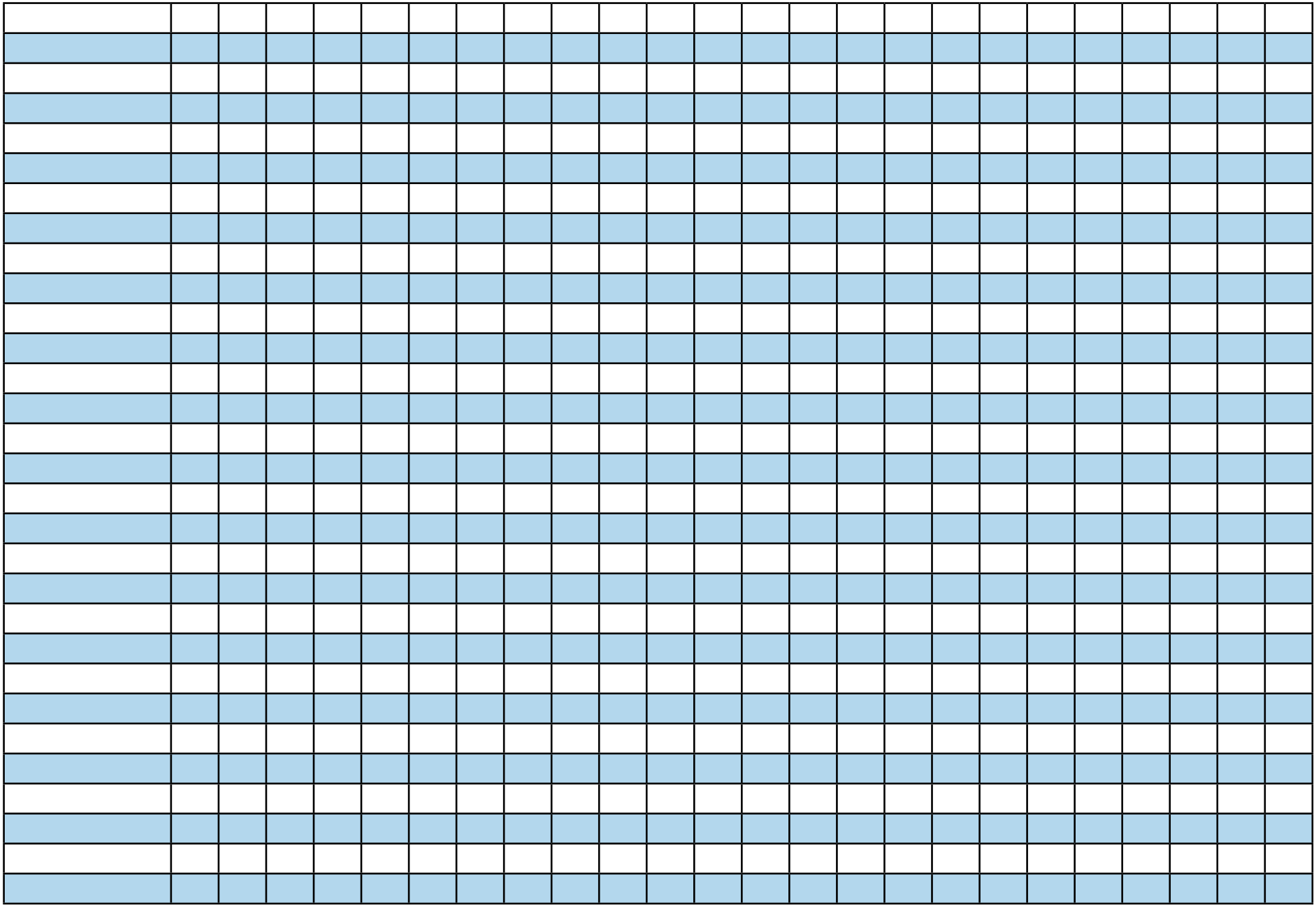
Tens Recording Chart

Use the following grid to record your Tens scores. Refer to page xi for the Tens Conversion Chart.



Lesson Number

Student Name



ACKNOWLEDGMENTS

CHAIRMAN OF THE BOARD AND SERIES EDITOR-IN-CHIEF
E. D. Hirsch, Jr.

PRESIDENT
Linda Bevilacqua

PROJECT DIRECTOR, DIRECTOR OF SKILLS STRAND
Matthew M. Davis

VP AND PROJECT DIRECTOR, DIRECTOR OF LISTENING AND LEARNING STRAND
Souzanne A. Wright

DOMAIN EDITORS
Linda Bevilacqua and Souzanne A. Wright

READ-ALOUD AUTHOR
Michael L. Ford

CONTRIBUTING EDITORS
InContext Publishing Partners, Michelle De Groot, Diana Espinal, Mary E. Forbes, Martha G. Mack, Rachael L. Shaw, Catherine S. Whittington

EXPERT ON SUBJECT MATTER
Christine L. May

ART DIRECTOR
James K. Lee

GRAPHIC DESIGNERS
Kim Berrall, Kathryn M. Cummings, Steve Morrison, Scott Ritchie

ILLUSTRATOR
Steve Morrison, Apryl Stott

COVER DESIGNER
Steve Morrison

CONSULTING PROJECT MANAGEMENT SERVICES
ScribeConcepts.com

Credits

Every effort has been taken to trace and acknowledge copyrights. The editors tender their apologies for any accidental infringement where copyright has proved untraceable. They would be pleased to insert the appropriate acknowledgment in any subsequent edition of this publication. Trademarks and trade names are shown in this publication for illustrative purposes only and are the property of their respective owners. The references to trademarks and trade names given herein do not affect their validity.

Text Credits

Lesson 7, "Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out," from *Where the Sidewalk Ends,* by Shel Silverstein, 1974. Copyright © 2004 by EVIL EYE MUSIC, INC. Reprinted with permission from the Estate of Shel Silverstein and HarperCollins Children's Books.