



Grade 1 Sample Lesson Plan

Reduce, Recycle, Reuse

Objectives/Goals

- Students will engage in reducing, recycling, and reusing to help the environment.

Materials

- A bowl of water and sponges
- Videos and materials referenced in the PBS lessons (i.e., One large bag of popcorn • 6 small individual serving-size bags of popcorn • One-gallon jug of juice in a glass jar • A six pack of juice boxes • Assorted items that can be reused and recycled (detergent bottles, soda bottles, blankets, glass jars, magazines, newspapers, paper plates, plastic yogurt cups, paper, plastic water bottles, cereal boxes, etc.))
- Computer with Internet access

Steps

1. Activities: Reduce, Recycle, Reuse

- Tell students about pollution (land (e.g., garbage), air (e.g., smog from cars, smoke from cigarettes), and water (e.g., oil spills from boats). And then implement the following lesson:

PBS Kids RECYCLING: REDUCE, RECYCLE, REUSE K-1 Lesson
http://www-tc.pbskids.org/eekoworld/parentsteachers/pdfs/lessonk_1.pdf

Activity One: Reducing Waste

Step 1

Tell the students that you are going to show them what it means to reduce waste. Explain the idea of reducing waste by telling your class that when you avoid making garbage in the first place, you don't have to worry about disposing of waste or recycling it later. Show the students the large bag of popcorn and the individual bags of popcorn and ask them which they think makes more waste. Show the students how more wrapping is used in the individual bags and tell them that if more paper and packaging is used to make something, it makes more waste, or garbage. Explain how packing popcorn in reusable containers will reduce waste because it makes less garbage. Show the students the gallon jug of juice in a glass jar, and a six-pack of juice boxes. Ask the students to predict which of these items makes more waste. Tell the students that it takes more paper and plastic to make the juice boxes.

Step 2

Ask questions to ensure students' understanding of the differences between the items you have presented to them. Encourage students to think of other examples of how to reduce waste. Use the following prompts as guides to stimulate discussion: • If you write on both sides of paper, how does this reduce waste? • If you buy one big bottle of detergent instead of three small ones, how does this reduce waste? • If you use a reusable lunch box or bag instead of paper, how does this reduce waste? • If you use dishes instead of paper plates, how does this reduce waste? • If you use a reusable mug instead of a paper or plastic cup, how does this reduce waste? • If you say, "No thanks, I don't need a bag," When you buy something that doesn't require a bag, how does this reduce waste?

Activity Two: Recycling*Step 1*

Ask students to share what they may know about recycling. Tell the students that recycle means to use something again. Share the following examples of things that can be recycled: • Glass bottles • Plastic water bottles • Detergent bottles • Cereal boxes Newspapers • Magazines • Plastic yogurt cups. You may also wish to have the class revisit the EekoWorld section on garbage and recycling which shows what happens to paper, glass and plastic when it is recycled. (http://pbskids.org/eekoworld/index.html?load=garbage_recycling)

Step 2

Share the recycling symbols with your class. Some of the symbols mean that the item may be recycled, and some of the symbols mean that the item is made from recycled materials. Ask the students to look for examples of recycling symbols on the items you have provided.

Activity Three: Reusing

Step 1

Ask the students to tell you what they know about reusing things. You may use the following questions as prompts: • *_Did you ever go to a yard sale? What is a yard sale?* • *_Did you ever donate your old toys or clothes to a charity?* • *_Did you ever give clothes that no longer fit you to a brother, sister or a cousin?* • *_Did you ever use an old glass jar to hold your pencils, pens or paintbrushes?* Tell the students that these are all examples of reusing things.

Step 2

Show the following items to your class and ask how they might be reused: • Gift wrapping paper
• Paper lunch bags • A toy • An empty peanut butter jar • A cardboard box • A plastic milk jug • A detergent bottle • An empty plastic soda bottle

Step 3

Ask the students to generate more examples of how one can reuse varied items. Encourage your students to bring examples into class. Explain to the class how reusing things instead of throwing them out can help take care of the earth.

Activity Four: The Play*Step 1*

Invite students to bring in items that are examples of how to reduce waste, items that are recycled, and items that are reused. As a class, sort the items into three groups: • Things that reduce waste • Things that can be recycled. • Things that can be reused. Tell the students that you will be using these items in a class play.

Step 2

Divide the class into three groups. Assign each group to one of the following categories:

•Reduce • Recycle • Reuse. Have each student in the group present one item. Each student says the name of the item they have, and how it reduces waste. Place three bins on the stage. Label each bin with one of the following signs: Reduce, Recycle, Reuse. Select a narrator to read the one sentence introduction to each category.

Step 3

Present the play using the guidelines below.

Part 1: REDUCE

Narrator: There are three important ways to help take care of the earth. Entire

Class: REDUCE, RECYCLE, REUSE

Narrator: When you reuse things, you can help the earth.

Each student in the "reduce" group presents an item. The following are examples of what students might say: • This is paper. When you use less paper, you reduce waste. • This is a large bag of dog food. When you buy a big size, you reduce waste.

After the item is presented, each student puts the item in the bin labeled "Reduce."

Part 2: RECYCLE

Narrator: There are three important ways to help take care of the earth. Entire Class: REDUCE, RECYCLE, REUSE

Narrator: Recycling is using something again. When you recycle things you can help the earth. Each student in the "recycle" group presents one item that can be recycled and places it in recycling bin. Use the following examples as a guide: • This is a detergent bottle. You can recycle this. • This is a plastic water bottle. You can recycle this.

After the item is presented, each student puts the item in the bin labeled "Recycle."

Part 3: REUSE

Narrator: There are three important ways to help take care of the earth. Entire Class: REDUCE, RECYCLE, REUSE

Narrator: When you reuse things instead of throwing them out you can help the earth.

Each student presents one item that can be reused and places it in the bin labeled "Reuse." Use the following examples as a guide: • This is a reusable lunch box. • This is a reusable cup.

After the item is presented, each student puts the item in the bin labeled "Reuse."

Part 4: THE END

Entire Class: REDUCE, RECYCLE, REUSE. REDUCE, RECYCLE, REUSE. REDUCE, RECYCLE, REUSE.

(You may choose to have class clap and stomp a beat as they say these words.)

EXTENSION ACTIVITIES

Activity One: Banner Making Ask the class to create a banner with the words REDUCE, RECYCLE, REUSE and illustrations. Post the banner where others in the school and community can view it.

2. Natural Resources and Conservation

- Engage in the following guided discussion.

PBS Kids Lesson: Reduce, Reuse, Recycle

http://www.pbslearningmedia.org/resource/lpsc10.sci.life.lp_reduce/reduce-reuse-recycle/

- Tell students that natural resources are raw materials that we obtain from the environment and use in many different ways and that they can help protect Earth's natural resources by reducing the amount of materials they use, reusing materials when possible, and recycling.
- Have students identify natural resources in their immediate surroundings, such as cotton in their clothing, wood in the furniture, paper in books, etc.
- Discuss how by weighing their own personal wants and needs, students can help protect Earth's natural resources. For example, you may ask: What's wrong with throwing paper away instead of reusing or recycling it?
- Explain that some natural resources, like petroleum (from which most plastic toys are made), are limited in supply. Other natural resources, like trees, can be grown and harvested in a responsible way so that the supply does not run out.
- Tell students that they are going to watch an animated video about a boy named Oliver and a big pile of garbage. Tell them to look for something in Oliver's garbage that somebody else might want.
- Show the Garbage Video:
<http://www.pbslearningmedia.org/resource/lpsc10.sci.life.garbage/garbage/>
- Ask students to identify ways that they could share or recycle what they no longer need or want. Write these ideas on the board.
- *(Older students could then become involved in a project, such as an ice skate/soccer cleat swap, or a toy clinic to clean and donate used toys. Discuss swap meets that are held at local schools or parks.)*
- Tell students that they are going to watch another animated video, this time about a girl named Clementine. Before viewing, ask students if they have a lot of magazines or catalogues in their house and what they do with them after they've been read. Tell them that after they watch this video, they may think of things to do with them.
- Show the Magazines Video:
<http://www.pbslearningmedia.org/resource/lpsc10.sci.life.mag/magazines>
- After showing the video, draw three columns on the board (or have students draw them on a sheet of paper). Label the columns "Reduce," "Reuse," and "Recycle."
- Brainstorm ways to reduce consumption, encourage recycling, and create art or other fun things from reused materials. For example, they can make cubbyhole decorations, self-portraits, and gift wrap. Food containers that are clean can be used for storing art materials.
- The following questions can be used as writing or discussion prompts to check

for understanding: How could using both sides of a sheet of paper before recycling it help protect natural resources? How could using old magazines or catalogues to wrap presents help protect natural resources? What about donating a teddy bear or some old clothes to a thrift store? How could that help preserve natural resources? Did watching these videos change how you think about the things you have? If so, how?

3. Activity: Water Savers Conserve Natural Resources (Water)

- To demonstrate the value of water conservation, set up a bowl of water and several pieces of sponge, and do the following:
 - Ask student volunteers to come up and identify an activity that they engage in each day that uses water (e.g., brushing teeth); at the same time they should dip the sponge in the water and hold it. As each student dips the sponge, the water level will lower.
 - Tell the class that the challenge with using the world's water is that eventually it can dry up or become so polluted that it is difficult to use. We all can stop that by being "Water Savers."
 - Ask each student with a sponge to identify one way that they think they can save water (e.g., turning off running water while brushing teeth) ; as each student names this activity, have them squeeze the sponge back into the water. As each student identifies a water saving measure and squeezes the water back into the bowl, the water level will increase.
- Conclude by saying that this reflects that even little contributions can improve the natural environment and encourage the students to be water savers every day.

Assessment Idea

- Check for understanding as reflected by student participation in discussion and activities

References

- “10 Fun Conservation Activities for Parents, Teachers, and Kids”
<http://ecohearth.com/eco-zine/kids-and-family/1309-10-fun-conservation-activities-for-parents-teachers-kids.html>
- Loops and Scoops "Garbage"
<http://www.pbslearningmedia.org/resource/lpsc10.sci.life.garbage/garbage/> "
- Loops and Scoops "Magazines"
<http://www.pbslearningmedia.org/resource/lpsc10.sci.life.mag/magazines>
- PBS Kids EekoWorld – Interactive Website on the Environment
<http://pbskids.org/eeoworld/>
- PBS Kids: Reduce, Reuse, Recycle K-1 http://www-tc.pbskids.org/eeoworld/parentsteachers/pdfs/lessonk_1.pdf
- PBS Learning Media: Reduce, Reuse, Recycle Lesson
http://www.pbslearningmedia.org/resource/lpsc10.sci.life.lp_reduce/reduce-reuse-recycle/
- PBS Learning Media: Environment- A Tale of Two Soup Cans
<http://www.pbslearningmedia.org/resource/msts14.ela.twosoup/environment-a-tale-of-two-soup-cans>
- PBS Learning Media: Landfill-Human Impact on the Physical Environment
<http://www.pbslearningmedia.org/resource/181216317-human-impact/birds-flying-over-landfill-human-impact-on-the-physical-environment-geography/>



RECYCLING: REDUCE, RECYCLE, REUSE

OVERVIEW

In this lesson students will be introduced to the concepts of reducing, reusing and recycling. They will learn new vocabulary, read labels, and connect environmental concepts to their everyday experiences. Students will perform a skit highlighting what they have learned about taking action to conserve the earth's resources.

OBJECTIVES

Students will do the following:

- Use varied strategies to comprehend written or oral language from a variety of sources
- Actively listen to audio information using Internet resources
- Summarize information by retelling
- Make connections between new information and prior knowledge
- Understand new vocabulary and concepts
- Understand relationships among organisms and their environment
- Participate in group activities and class discussion
- Perform a dramatic skit

SUBJECT AREAS

Language Arts, Science, Drama

INTERNET LINKS

Bookmark the following Web sites:

- [EekoWorld](http://pbskids.org/eekoworld) (<http://pbskids.org/eekoworld>)
- [Recycling Symbols](http://www.ronz.org.nz/nz_recycling_symbols/gallery.html) (http://www.ronz.org.nz/nz_recycling_symbols/gallery.html)
- [Sarah Cynthia Sylvia Stout](http://www.mste.uiuc.edu/courses/ci407su01/students/north/kristy/Project/K-Poem-Net.html) (<http://www.mste.uiuc.edu/courses/ci407su01/students/north/kristy/Project/K-Poem-Net.html>)
- [Recycling Symbols](http://www.ronz.org.nz/nz_recycling_symbols/gallery.html) (http://www.ronz.org.nz/nz_recycling_symbols/gallery.html)

MATERIALS

- One large bag of popcorn
- 6 small individual serving-size bags of popcorn
- One-gallon jug of juice in a glass jar
- A six pack of juice boxes (Be aware of food allergies if students eat popcorn or juice.)
- Assorted items that can be reused and recycled (detergent bottles, soda bottles, blankets, glass jars, magazines, newspapers, paper plates, plastic yogurt cups, paper, plastic water bottles, cereal boxes, etc.)
- Computer with Internet access

Teacher Note: You may wish to teach this lesson in short segments by using each of the activities on a different day.



BUILDING BACKGROUND

Activity One: Exploring EekoWorld

Ask the students to brainstorm ideas about garbage and recycling and record their ideas on a board or chart paper. Visit the [Garbage & Recycling](#) section of the EekoWorld Web site at

As you view the different pages of this section, ask questions to confirm students' understanding of the different concepts. Focus on explaining how we depend on the earth's resources, and how we can play a role in taking care of the earth.

After viewing this information, ask the students what new information they have learned about this topic. Tell the students that they are going to learn more about reducing, recycling and reusing materials.

STEPS

Activity One: Reducing Waste

Step 1

Tell the students that you are going to show them what it means to reduce waste. Explain the idea of reducing waste by telling your class that when you avoid making garbage in the first place, you don't have to worry about disposing of waste or recycling it later.

Show the students the large bag of popcorn and the individual bags of popcorn and ask them which they think makes more waste. Show the students how more wrapping is used in the individual bags and tell them that if more paper and packaging is used to make something, it makes more waste, or garbage. Explain how packing popcorn in reusable containers will reduce waste because it makes less garbage.

Show the students the gallon jug of juice in a glass jar, and a six-pack of juice boxes. Ask the students to predict which of these items makes more waste. Tell the students that it takes more paper and plastic to make the juice boxes.

Step 2

Ask questions to ensure students' understanding of the differences between the items you have presented to them. Encourage students to think of other examples of how to reduce waste. Use the following prompts as guides to stimulate discussion:

- If you write on both sides of paper, how does this reduce waste?
- If you buy one big bottle of detergent instead of three small ones, how does this reduce waste?
- If you use a reusable lunch box or bag instead of paper, how does this reduce waste?
- If you use dishes instead of paper plates, how does this reduce waste?
- If you use a reusable mug instead of a paper or plastic cup, how does this reduce waste?
- If you say, "No thanks, I don't need a bag," when you buy something that doesn't require a bag, how does this reduce waste?

Activity Two: Recycling

Step 1

Ask students to share what they may know about recycling. Tell the students that recycle means to use something again. Share the following examples of things that can be recycled:

- Glass bottles
- Plastic water bottles
- Detergent bottles
- Cereal boxes



- Newspapers
- Magazines
- Plastic yogurt cups

You may wish to have the class revisit the EekoWorld section which shows what happens to paper, glass and plastic when it is recycled.

Step 2

Share the following recycling symbols with your class. Some of the symbols mean that the item may be recycled, and some of the symbols mean that the item is made from recycled materials. You may wish to visit [the Recycling Symbols Web site](#) that shows many examples of recycling symbols.

Ask the students to look for examples of recycling symbols on the items you have provided.

Activity Three: Reusing

Step 1

Ask the students to tell you what they know about reusing things. You may use the following questions as prompts:

- Did you ever go to a yard sale? What is a yard sale?
- Did you ever donate your old toys or clothes to a charity?
- Did you ever give clothes that no longer fit you to a brother, sister or a cousin?
- Did you ever use an old glass jar to hold your pencils, pens or paintbrushes? Tell the students that these are all examples of reusing things.

Step 2

Show the following items to your class and ask how they might be reused:

- Gift wrapping paper
- Paper lunch bags
- A toy
- An empty peanut butter jar
- A cardboard box
- A plastic milk jug
- A detergent bottle
- An empty plastic soda bottle

Step 3

Ask the students to generate more examples of how one can reuse varied items. Encourage your students to bring examples into class. Explain to the class how reusing things instead of throwing them out can help take care of the earth.

Activity Four: The Play

Step 1

Invite students to bring in items that are examples of how to reduce waste, items that are recycled, and items that are reused. As a class, sort the items into three groups:

- Things that reduce waste
- Things that can be recycled



- Things that can be reused

Tell the students that you will be using these items in a class play.

Step 2

Divide the class into three groups. Assign each group to one of the following categories:

- Reduce
- Recycle
- Reuse

Have each student in the group present one item. Each student says the name of the item they have, and how it reduces waste. Place three bins on the stage. Label each bin with one of the following signs: Reduce, Recycle, Reuse.

Select a narrator to read the one sentence introduction to each category.

Step 3

Present the play using the guidelines below.

Part 1: REDUCE

Narrator: There are three important ways to help take care of the earth.

Entire Class: REDUCE, RECYCLE, REUSE

Narrator: When you reuse things, you can help the earth.

Each student in the "reduce" group presents an item. The following are examples of what students might say:

- This is paper. When you use less paper, you reduce waste.
- This is a large bag of dog food. When you buy a big size, you reduce waste.

After the item is presented, each student puts the item in the bin labeled "Reduce."

* * *

Part 2: RECYCLE

Narrator: There are three important ways to help take care of the earth.

Entire Class: REDUCE, RECYCLE, REUSE

Narrator: Recycling is using something again. When you recycle things you can help the earth.

Each student in the "recycle" group presents one item that can be recycled and places it in recycling bin.

Use the following examples as a guide:

- This is a detergent bottle. You can recycle this.
- This is a plastic water bottle. You can recycle this.

After the item is presented, each student puts the item in the bin labeled "Recycle."



* * *

Part 3: REUSE

Narrator: There are three important ways to help take care of the earth.

Entire Class: REDUCE, RECYCLE, REUSE

Narrator: When you reuse things instead of throwing them out you can help the earth.

Each student presents one item that can be reused and places it in the bin labeled "Reuse."

Use the following examples as a guide:

- This is a reusable lunch box.
- This is a reusable cup.

After the item is presented, each student puts the item in the bin labeled "Reuse."

* * *

Part 4: THE END

Entire Class: REDUCE, RECYCLE, REUSE. REDUCE, RECYCLE, REUSE. REDUCE, RECYCLE, REUSE. (You may choose to have class clap and stomp a beat as they say these words.)

EXTENSION ACTIVITIES

Activity One: Banner Making

Ask the class to create a banner with the words REDUCE, RECYCLE, REUSE and illustrations. Share the banner by posting it where others in the school and community can view it.

Activity Two: Poetry

Share Shel Silverstein's poem entitled "[Sarah Cynthia Sylvia Stout Would Not Take Out the Garbage](#)." Ask the students to illustrate the poem. Post students' work to share with others in the school or community.

STANDARDS

[McRel Standards](#) (www.mcrel.org)

Language Arts: Reading

Standard 7. Uses reading skills and strategies to understand and interpret a variety of informational texts

Level I (Grades K-2)

1. Uses reading skills and strategies to understand a variety of informational texts (e.g., written directions, signs, captions, warning labels, informational books)
2. Understands the main idea and supporting details of simple expository information
3. Summarizes information found in texts (e.g., retells in own words)
4. Relates new information to prior knowledge and experience



Language Arts: Listening & Speaking

Standard 8. Uses listening and speaking strategies for different purposes

Level I (Grades K-2)

1. Makes contributions in class and group discussions (e.g., reports on ideas and personal knowledge about a topic, initiates conversations, connects ideas and experiences with those of others)
2. Asks and responds to questions (e.g., about the meaning of a story, about the meaning of words or ideas)

Science

Standard 6. Understands relationships among organisms and their physical environment

Level I (Grades K-2)

1. Knows that plants and animals need certain resources for energy and growth (e.g., food, water, light, air)

Lesson 1: Environmental Health 101





Lesson 1: Environmental Health 101

Snapshot

This lesson introduces the broad concept of environmental health and why children may be particularly at risk from environmental health hazards by focusing on the differences between adults and children. These differences will be highlighted by examining the four things that all living beings need in order to survive (air, water, food, and shelter).

Preparation and Materials:

- Posters 1–3, Visual Cards 1–6, Take-Home Talk
- Flip chart and markers
- Black or white board
- Large sheets of paper for each child to make a poster
- Markers or crayons

Objectives—Students will be able to:

- define *environment* and *environmental health*;
- list the four things that all living beings need;
- understand why children are often more at risk from environmental health hazards; and
- understand that their actions can help to create a healthier environment for themselves and for everyone around them.

Vocabulary: environment, living beings, health, and impact

Procedure:

1. Introduction—The Earth and Our Club: A Comparison (*5 minutes*)
2. Define Vocabulary—Environment, Living Beings, Health, and Impact (*5 minutes*)
3. Stayin' Alive—Air, Water, Food, and Shelter (*10 minutes*)
4. The Big Four Search Activity (*10–15 minutes*)
Optional Activity: The Big Four Poster Creation (*10–15 minutes*)
5. Close and Take-Home Talk (*10 minutes*)



Lesson 1: Environmental Health 101

1. Introduction:

The Earth and Our Club: A Comparison *(5 minutes)*



[Show **Poster #1** (Earth).] Pass it around and ask what the class knows about the Earth.

Prompts: What is the Earth made of? Who uses it? How is it used? How do you take care of it? What happens if it's not taken care of?



[Show **Poster #2** (Building).] Pass it around and ask the class to think about the building that they are in now. What do they know about the building?

Prompts: What is it made of? Who uses it? How is it used? How do you take care of it? What happens if it's not taken care of?



The Earth and the building that the class is sitting in are alike. What do they have in common?

Prompts: People use them both. People use the resources of the Earth and the resources of the building we are in today. Both the Earth and this building can get dirty and need to be cleaned. They both need to be cared for (cleaned/not polluted) in very specific ways. There are lots of people in some areas and not a lot in others—some locations and activities are in higher demand than others.

Lesson 1: Environmental Health 101

Poster #1



Lesson 1: Environmental Health 101

Poster #2







Lesson 1: Environmental Health 101

2. Define Vocabulary: Environment, Living Beings, Health, and Impact (5 minutes)

Explain

Today we're going to talk about how our Earth, our city, our community spaces, our schools, and our homes are all connected and impact each other.

Ask

When you hear the word **environment**, what comes to mind? What does the word environment make you think of?

Prompts: Do you think about basketballs or animals? Ice cream or water? Mountains or TVs?

Explain

When we hear the word **environment**, we often think about nature, right? Things that are outdoors—plants, animals, wind, rain, water, sun, and different types of land—forests and deserts, mountains and jungles, rainforests and fields. Well, the environment is all of these things and a lot more—**environment** means **everything** that affects the life, development, and survival of living things.

Ask

We hear the word pollution connected to the environment sometimes. What is pollution?

Explain

Pollution is when our air, water, or food has things in it that are not good for us. Pollution might be poisonous chemicals or other things that make us sick (such as when we drink from a river or stream). The water may look clean, but there could be dangerous chemicals in the water. When it rains and trash and debris pool together in the road it ends up going down the storm drain and flowing into the streams and lakes that we use for our drinking water. And this trash and debris can contaminate it. We call this **rainwater runoff**. There's also runoff from farms contain pesticides, and runoff from homes and residential areas such as malls that use chemicals to treat lawns and gardens, or parasites and microbes from animals. When we breathe, drink, or eat something that is polluted or contaminated with something that is not healthy for us, scientists describe that as being exposed to an environmental hazard.

Ask

Now, can you name some living things? *[Encourage a lot of answers.]* All of these things that you named are living things and all of them are impacted by the environment around them.



Lesson 1: Environmental Health 101

3. Stayin' Alive: Air, Water, Food, and Shelter (10 minutes)

Explain
Do

If the environment is **everything** that affects a living thing and helps that living thing survive, we need to figure out what we need in order to survive. *[Pass out **Visual Cards #1-6** to six students and ask them to represent that living thing—for each of the four necessary things, ask the student if it applies to the living thing on his or her card (e.g., What do frogs eat to stay alive? Do bees have shelters? Do whales need air?).]*

Do
Ask

*[Take a deep exaggerated breath.]*What am I doing? Breathing! We need air to stay alive.

Ask

Who breathes more air, a child or an adult?

Explain

Children breathe more air than adults because they breathe more rapidly.

Ask

What did you do at lunch time? Eat and drink! We need food and water to stay alive.

Ask

Who eats and drinks more, adults or children?

Explain
Do

Adults might eat more food, **but** children eat and drink more in relation to their body weight than adults. If a baby drinks a bottle of water and an adult drinks the same amount of water, the water takes up a much greater percentage of the baby's total weight than the adult's. *[Show **Poster #3** (Graphic of Baby and Adult).]*

Ask

That's a big difference isn't it? How else are the bodies of adults and children or babies different?

Prompts: Think about the changes that a kid goes through between ages 2 and 7.

(continued on other side)

3. Stayin' Alive *(continued – page 2)*

Explain

A lot happens to a kid in the 5 years between ages 2 and 7! The toddler grows taller, learns tons of new words, goes from walking just a little to running and playing games. And those are just the things that we can see. Inside, his or her organs and bones are growing and changing; the toddler's brain changes as he or she continues to learn.

Ask

Now think about an adult who matures from ages 30 to 35. Does an adult grow during this 5-year period as much as a child grows from ages 2 to 7?

Explain

Children develop and their bodies change in ways that adults don't. In fact, your brain and body is developing at a fast rate up until you're in your twenties. Some changes you can see and others you cannot. And remember, the environment includes everything around a child as he or she grows. If there are harmful chemicals or pollution in the environment, they will impact a child's development.

Ask

When was the last time you saw an adult playing in a sandbox? Or in the mud? Who plays on the ground more—adults or kids?

Explain

Children, your age and younger and older, play outside and they live closer to the ground. They also pick stuff up from the ground all the time, which can increase their chances of getting sick from the environment. Now this doesn't mean that kids shouldn't play outside! It just means that we need to be aware of harmful things around us so that we know how to avoid them. And it means that we all need to understand the causes of pollution and how we can help to prevent them.

Ask

Could you survive and thrive if you lived outside all the time? In winter? In thunderstorms during the summer? We need shelter from these things in order to live. And we need to think about the shelters that we create because in our homes, schools, or other places that provide shelter, there can be environmental hazards that can harm us.

Explain

Living things, like you and me and cats and insects and fish and the President, need four key things to stay alive: air, water, food, and shelter.

3. Stayin' Alive *(continued – page 3)*

Ask

Are there other things that help us stay alive? *[Respond to the students' answers. They will likely give some answers that fall into the categories of air, water, food, and shelter.]* Are they things that we need or things that we want?

Ask

So, we need air, water, food, and shelter to stay alive, right? But what happens if we have water, but it's dirty? Or if we have air, but it's polluted? Or if we have food, but it's not nutritious? Or if we have shelter, but it makes us unhealthy? Do we still live?

Explain

Humans can adapt a lot and we can survive in the short term in environments that aren't healthy for us in the long term. We will spend the next couple of months learning how we can make our environment healthier. And we'll be focusing on the four big things you determined that we need to live today: air, water, food, and shelter. Let's start with the one we're standing in now—shelter!



Lesson 1: Environmental Health 101

Visual Card #1 **Frog**





Lesson 1: Environmental Health 101

Visual Card #2 **People**





Lesson 1: Environmental Health 101

Visual Card #3 Bumble Bees





Lesson 1: Environmental Health 101

Visual Card #4 **Panda Bears**





Lesson 1: Environmental Health 101

Visual Card #5 **Bald Eagle**





Lesson 1: Environmental Health 101

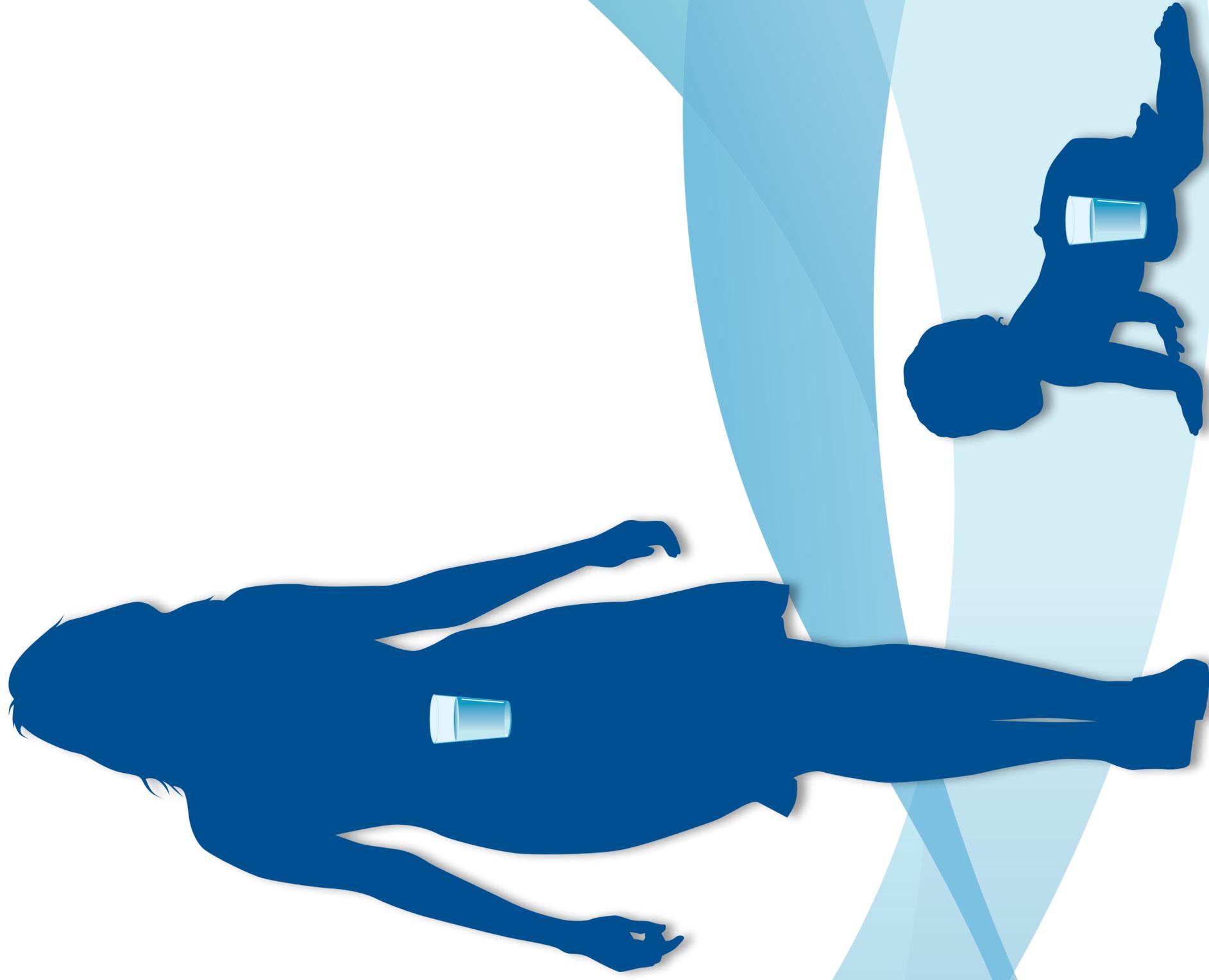
Visual Card #6 **Orca Whale**



Lesson 1: Environmental Health 101

Poster #3







Lesson 1: Environmental Health 101

4. The Big Four Search Activity

(10–15 minutes)

Do

[Take the students on a search to answer the following questions: Where do we see the four things that we need to live right here in our building? Where do we see examples in our area?]

[Keep a running list of all of the items that the class identifies. Start in the space that you're in and tell the students to start big: bricks, linoleum tiles, glass windows, metal supports, etc. Then go smaller: paint (How many layers? How do you know?), plastic molding, glass bulbs, wires, cables, etc. Smaller still: Open some cabinets; go into other rooms. Remind the students to think about the toddler—what would he or she put in his or her mouth? Encourage the students to get on their hands and knees so that they can see the world as a toddler might. Where does the water come from? Does this building store any food? Where? And how? How does air come into the building and go out?]

Explain

All of these things that you identified are part of our environment—we are in contact with them every day. This shelter helps us survive and thrive, but we usually don't stop to think about it and the things inside of it that we use every day. Just like the air we breathe, the water we drink, and the food we eat, we need to stop and ask if the places where we live and play and learn are healthy for us and, if not, we need to ask how we can change that.

Optional Activity: The Big Four Poster Creation (10–15 minutes)

Explain

Now that we know the four things that all living beings need, let's spread the word! Each of you (or in pairs) will make a poster that explains the four things we need to stay alive. Think about including drawings of different examples of these four things.

Do

[Pass out large sheets of paper and markers or crayons.]



Lesson 1: Environmental Health 101

5. Close and Take-Home Talk

(10 minutes)

Explain
Do

Close your eyes and take a nice deep breath. We've covered a lot today and I want to review it, but first let's talk about food!

Ask

If we want to make brownies, what things do we need?

Prompts: What ingredients do we need? Do we need to heat them? What would happen if we didn't include chocolate? Or if we didn't heat the ingredients?

Explain

All of the different ingredients come together to create delicious brownies. We can think about our environment in the same way—we need certain ingredients in order to live in a healthy way. Open your eyes. Can someone raise your their and tell me one of the four ingredients that we need to live?

Ask

Making sure that our environment is healthy—and has all of the ingredients that we need—is important to everyone, but it's especially important that the environment is healthy for babies and kids. Why?

Explain
Do

Think about how big a baby is and how big an adult is. If a baby drinks a bottle of water and an adult drinks the same amount of water, the water takes up a much greater percentage of the baby's total weight than in the adult. [Show **Poster #3** (*Graphic of Baby and Adult*)] This is true for all of the things that we eat and the air that we breathe as well. And let's think about those babies; they are growing so fast and their bodies—all of their organs and muscles and their brains—are developing. If they don't get the healthy ingredients that they need, their growth and development can suffer.

(continued on other side)

5. Close and Take-Home Talk *(continued – page 2)*



The coolest part about learning something new is sharing the knowledge. Tonight, when you get home, I want you to talk with your family about the things that we learned today. What will you tell them? Will you talk about the four big things that we all need in order to live? What are they again? *[Wait for the students to name them.]* Conduct a search of your shelter, your home—what materials can you see by looking closely? Where did those materials come from? How did they get there?



*[Pass out **Take-Home Talk.**]* This Take-Home Talk Sheet has some things that you can share with your family, and some activities that you can do at home. See what you can accomplish and we'll talk about it the next time we meet. We'll be talking more about shelter next time!



Take-Home Talk

Lesson 1: Environmental Health 101

To Share:

- The environment is everything that affects a living thing and helps it survive.
- All living things need air, water, food, and shelter to survive.
- Kids and babies can be more heavily impacted by unhealthy environments because their bodies are growing and developing at a faster rate than that of adults.

To Do and Talk About:

- **Alive and Thrive Search!** Can you and your family think of 20 living beings in your neighborhood? Can you think of 100 living beings that you know?
- **So Many Shelters!** What kind of shelter has your family spent time in before? Apartment buildings? Houses? Trailers? Hotels? Motels? Tents? Cabins? Campers? Condos? What else? What are your favorite stories from these places?
- **Get the Straight Scoop!** We all need food to survive and luckily there are lots of different kinds of food and everyone likes something a little different. Interview people you know to find out what their favorite food is and the strangest thing that they have ever eaten.

Person: _____ Favorite Food: _____ Strangest Food: _____

Person: _____ Favorite Food: _____ Strangest Food: _____

Person: _____ Favorite Food: _____ Strangest Food: _____

To Take Back:

- What was the coolest thing that you learned from talking about this topic with your family and friends?