

Pre-Visit Activity #1: Carlo's Day at the Landfill

Overview:

After a trip to the landfill, Carlo learns to reduce, reuse, and recycle the packaging from his lunch. Students listen to the teacher read the story, and then solve a puzzle using recycling vocabulary.

Arizona Department of Education Academic Standards:

Please refer to the Arizona Department of Education Academic Standards section for the ADE standards addressed by this lesson.

Objectives:

Students will be able to:

- ☛ define and use recycling vocabulary
- ☛ state that almost half of what we put in our landfill could be reused or recycled
- ☛ identify and describe four alternatives to trash disposal: reduce, reuse, recycle, and compost

You will need:

- one photocopy of each of the six recycling vocabulary images
- one photocopy of the six vocabulary words and their definitions (cut into strips as indicated)
- a transparency of the "Solve the Puzzle" page
- overhead projector and marker
- text of the story: *Carlo's Day at the Landfill*

Directions: (estimated time 60 minutes)

1. Introduction

- Write the six recycling vocabulary words on the board.
- Tell the students that this activity will prepare them for a visit by a special guest from the City of Tucson's recycling program, *Too Good To Throw Away!*

2. Read *Carlo's Day at the Landfill*

Before reading the story, tell the students that there is a puzzle within the story that they will try to solve.

Ask the students to listen carefully while you read the story. When they hear any of the six vocabulary words, they should raise their hand. Distribute one of the six images and the accompanying definitions to the first six students who hear the words in the text of the story. At the end of the story, have each student holding a recycling image stand up, show the class their image, and read the definition on the strip of paper. You may want to ask students to give their own examples for each word.

3. Solve the Puzzle

Using an overhead projector and the "Solve the Puzzle" transparency, ask students: *What could Carlo do differently to avoid throwing valuable natural resources in the landfill?* Work through the list and explore various options for each item. Make a star in the boxes corresponding with appropriate choices. (For some items, there will be more than one appropriate option.) Refer to "Answer key" and "Teacher Notes." Make the point that we do have other choices! Then help students choose the *best* option for each item. Circle that star. After completing the chart, be sure to wrap up by discussing:

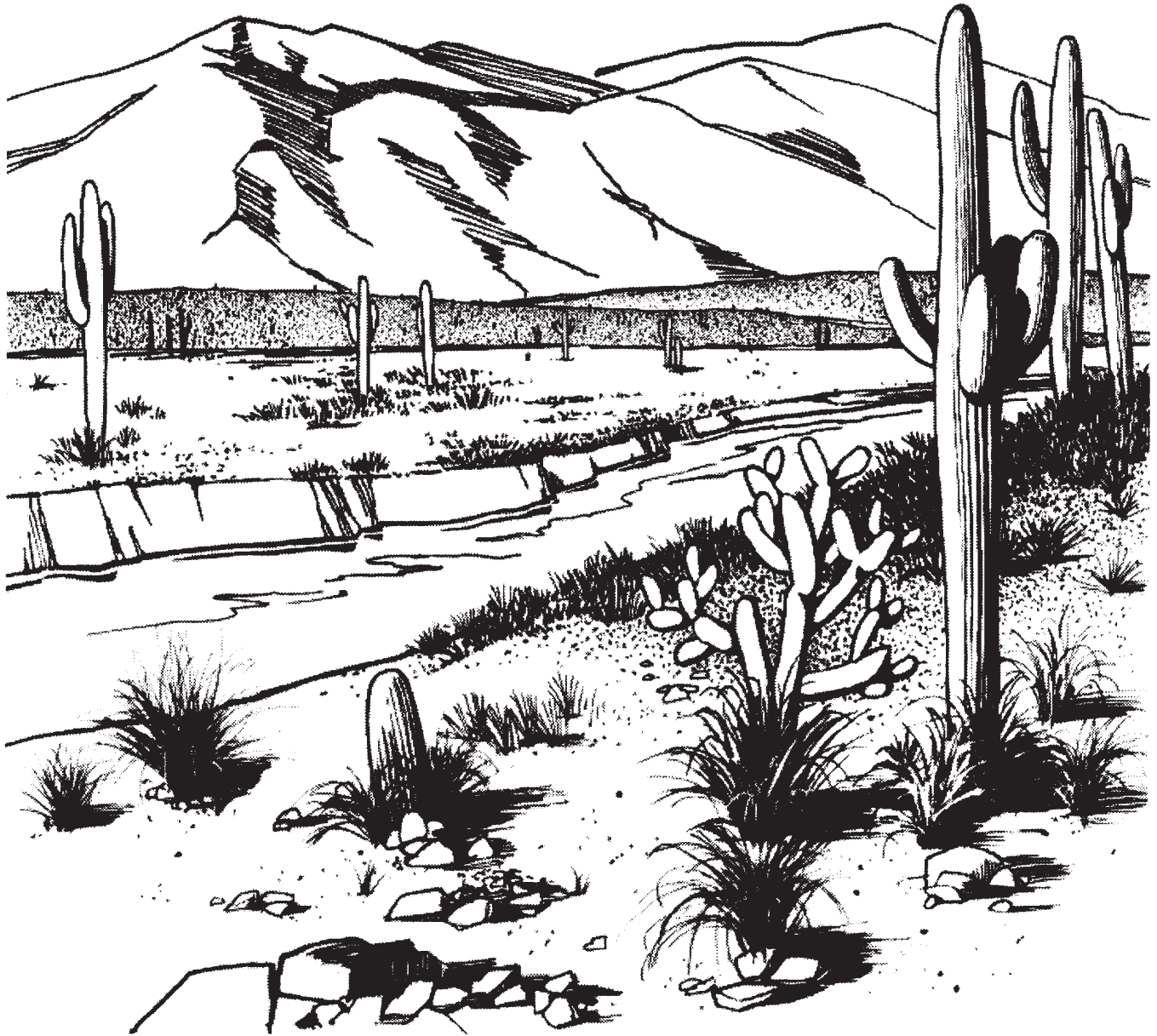
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Pre-Visit Activity #1: Carlo's Day at the Landfill (continued)

- Why is it important for Carlo—and us!—to recycle? Emphasize the importance of saving natural resources. Discuss how our lives would be different if our supply of various resources became depleted.
- What other options are more desirable than throwing resources away?
- Review the items on the list and differentiate between renewable and non-renewable items. Explain that even if a resource is renewable, it still may be limited (i.e., it takes many years for a tree to grow to maturity).
- How can students reduce the amount of trash from their own lunches?

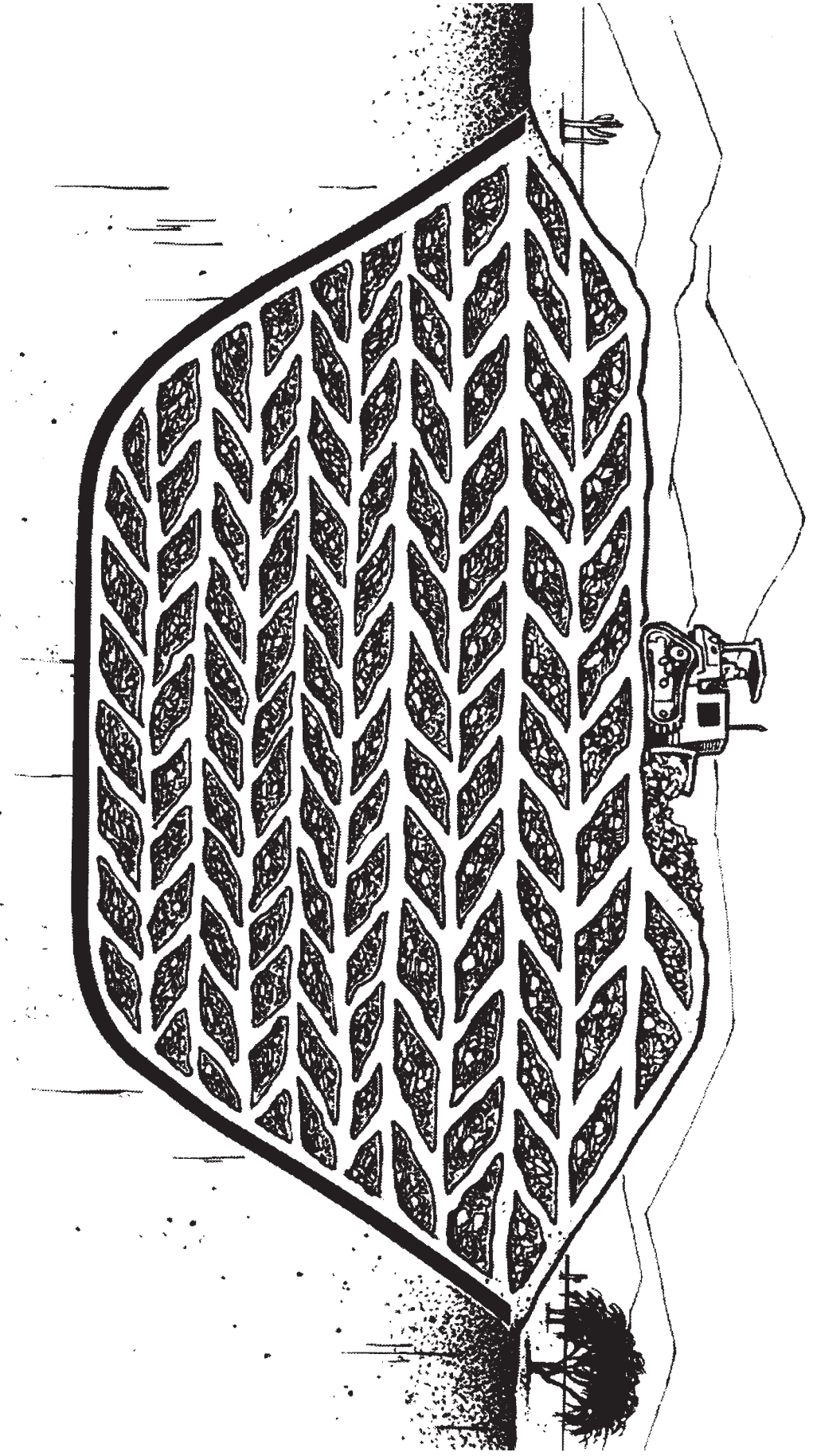
Extension Idea:

As a research project, students could select an item from Carlo's lunch and trace it back to its natural origins. Guide students to the important conclusion that all things come from natural resources.



natural resources

Landfill





reduce



reuse



recycle



compost

Know Your 3 Rs Vocabulary

Note to Teachers: Copy on card stock if available and cut along dotted lines.



Natural Resources (*noun*): Raw materials and energy that we get from nature: land, water, trees, sunshine, and minerals. Everything comes from natural resources. For example, this piece of paper came from a tree.



Landfill (*noun*): The place where trash is taken and buried in a special pit lined in plastic. Almost half of the things that end up there could have been reused, composted, or recycled.



Reduce (*verb*): To buy or use less stuff or to throw away less trash. For example, you can use a cloth bag repeatedly instead of a plastic bag to carry home groceries.



Reuse (*verb*): To save something and use it over again for the same purpose or another purpose. For example, you could make a toy rocket out of old paper towel rolls.



Recycle (*verb*): To make something used into something new. When you run out of things to do with your cans and newspapers, you can recycle them so they go to companies that make new things from them. A recycled newspaper can be made into another newspaper or comic book.



Compost (*verb/noun*): To compost is a way to recycle food scraps and yard waste. You can compost things that were once part of a living plant. Banana peels, coffee grinds, grass clippings, and leaves can all go in a compost pile to eventually turn into rich soil.



Carlo's Day at the Landfill

After a trip to the landfill, Carlo learns to reduce, reuse, and recycle the packaging from his lunch.

Carlo loves field trips. Today was going to be especially cool: his 4th grade class was going to the landfill. On the bus, Carlo and his friend Jack talked about the awesome things they might find at the landfill: old bikes, video games, comic books, and maybe even some unopened bags of cookies.

"Speaking of cookies, what do you have for lunch?" Jack asked.

Carlo looked into his brown paper lunch bag. He pulled out a piece of pizza wrapped in aluminum foil, a plastic container full of applesauce, a plastic spoon, an aluminum can of soda, a banana, and a bag of potato chips.

"Trade you an apple for your chips," offered Carlo's friend.

"No way," answered Carlo. "Hey look! We're at the landfill!"

The landfill was a big place, but it was not as cool as they had expected. There was trash everywhere, and lots of it: plastic bags, old food, broken couches, boxes, paper, and more.

"Peeeuuwww!" said Jack. "This place stinks!"

Once they were off the bus, Ms. Ortiz talked to their class about the landfill. "This is where the garbage trucks come after they leave your house," she explained.

"Who cleans landfills up?" Jack asked.

"Nobody cleans them up," Ms. Ortiz answered.

"That's the problem. We just cover them up and dig another big hole. That's why it's best if we can find ways to throw out less trash."

"You mean by recycling?" asked another student.

"That's a great way," agreed Ms. Ortiz. "Do you see that newspaper over there? It could have been recycled into another newspaper. But instead, somebody just threw it out, and now we have to use more natural resources, like trees, to make more paper. Almost half of the things here could have been reused, composted, or recycled."

Ms. Ortiz pointed to the desert full of trees, cacti, and birds. "Once this landfill cell is full, we're going to dig a new one over there. That's why today I want to teach you how to reduce, reuse, recycle, and compost—so we don't have as much trash to bury."

After the visit to the landfill, the class ate lunch at the park. When Carlo finished his lunch, he was about to throw the whole bag into the trashcan. But then he remembered what Ms. Ortiz said about reducing, reusing, recycling, and composting.

He looked down at his brown paper bag, at the aluminum foil, banana peel, plastic spoon, plastic applesauce container, aluminum soda can, and chip bag. Instead of sending it all to the landfill, Carlo made a plan, took his lunch bag home, and only threw away two of the seven things from his lunch. WHAT DO YOU THINK CARLO DID WITH THE OTHER FIVE THINGS?








Solve the Puzzle: *What should Carlo do?*

	REDUCE	REUSE	RECYCLE	COMPOST	THROW OUT
1. Brown Paper Bag					
2. Aluminum Foil					
3. Applesauce Container					
4. Plastic Spoon					
5. Soda Can					
6. Banana Peel					
7. Potato Chip Bag					

Answer Key

Solve the Puzzle:

What should Carlo do?

	REDUCE	REUSE	RECYCLE	COMPOST	THROW OUT
1. Brown Paper Bag	 use a durable lunch box or a cloth bag	★	★	★	
2. Aluminum Foil	 use a durable container	★			
3. Applesauce Container	 fill a durable container from large jar	★ use in craft projects, etc.	#1 or #2 plastics must have a neck to be recycled		
4. Plastic Spoon	 use a metal spoon	★			
5. Soda Can	 use a durable container for juice		★		
6. Banana Peel					
7. Potato Chip Bag	 fill a durable container from large bag				

Teacher Notes on *Carlo's Day at the Landfill*

Carlo realized that there were many different things he could have done to reduce the amount of trash that he produced, but here's what he actually did:

1. Carlo learned that he could **recycle** his brown lunch bag rather than toss it in the trash. But he noticed that the bag was still clean, so he decided to **reuse** it for the rest of the week. Then he used it to carry fruit peels out to the **compost** pile, since it could be composted too. A few weeks later, he realized that he could go further to **reduce** this waste. Instead of using a brown paper bag every week, he asked his parents to buy him a cool lunch container that would last for years.
2. Carlo realized he could rinse off the aluminum foil and **reuse** it a few times before recycling it. Later it occurred to him that he could further **reduce** waste by putting his pizza and sandwiches in a durable, washable plastic container.
3. Carlo knew that the applesauce container was *not* recyclable in Tucson. (Here we can recycle ONLY #1 and #2 plastic bottles or jugs with necks or screw-on lids. Tubs or containers without necks cannot be recycled even if they are #1 or #2.) So Carlo decided to **reuse** his applesauce cups to hold pennies and small toys. He even used a bunch of them to build forts with walls and towers. But Carlo really liked applesauce, and he soon realized that it would be quite a challenge to reuse all his applesauce cups. So to **reduce** his waste further, he convinced his dad to buy large jars of applesauce; then, when they packed his lunch, they spooned an individual serving into a small durable plastic container that could be easily washed.
4. At first, Carlo washed his plastic spoon with soap and water so he could **reuse** it. The spoons tended to get broken after a week or two. So Carlo took another step to **reduce** waste, by reducing the number of spoons he needed, and started carrying a regular metal spoon with his lunch.
5. Everyone knows that it is better to **recycle** an aluminum soda can than to throw it away. Soda cans are hard to reuse! But Carlo liked apple juice and orange juice as much as he liked soda. His family started buying cans of frozen juice concentrate to mix with water, because this involves less packaging waste than buying juice in other ways. Carlo dug a thermos out of the back of the kitchen cabinet. Each day he washed and refilled it from the big jar of juice in the fridge.
6. Carlo got an okay from his neighbor to start putting banana peels (and orange peels and apple cores too) in the neighbor's **compost** pile. Carlo liked the idea of composting his banana peels instead of letting them sit useless in a landfill. (When the neighbor gave Carlo's family green chilies and calabasas (squash) from the garden, it was interesting to think that this tasty food was grown with bits of Carlo's old fruit peels.)
7. Finally, because he knew it could not be recycled, Carlo threw away the potato chip bag. But avoiding putting things in the **landfill** had become a game to him. So sometimes he still took chips in his lunch, and sometimes he took tasty crackers. But to **reduce** waste, he convinced his dad to buy crackers and chips in big boxes and bags. Carlo then packed these in his lunch in a reusable plastic bag or even a plastic container to keep them from getting crushed.