

Lesson Plan

Landfills: What a Load of Garbage!



About the Book

Text Type: Nonfiction/Informational Page Count: 16 Word Count: 877

Book Summary

When you throw trash away, where does it go? Where is "away"? Most trash goes to landfills. This book explains what landfills are and how they operate. Students will also learn why trash is a threat to the environment and why getting rid of it is becoming expensive. Diagrams and photographs support this informative text.

About the Lesson

Targeted Reading Strategy

• Summarize

Objectives

- Summarize to understand text
- Sequence events
- Identify prepositions
- Identify how the suffix -ion changes the meaning of words

Materials

Green text indicates resources are available on the website.

- Book—Landfills: What a Load of Garbage! (copy for each student)
- Chalkboard or dry-erase board
- Dictionary
- Sequence events, prepositions, suffixes worksheets
- Discussion cards

Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting the book on an interactive whiteboard or completed with paper and pencil if the books are reused.)

Vocabulary

*Bold vocabulary words also appear in a pre-made lesson for this title on VocabularyA–Z.com.

Content words:

Story critical: biodegradable (adj.), groundwater (n.), landfills (n.), pollute (v.), toxic (adj.), treated (v.)

Enrichment: elements (n.), methane (n.), organic (adj.)

Before Reading

Build Background

- Hold up or point out the classroom trash can, and ask students to think of one thing they threw away today. Ask them what it was made of: plastic, metal, wood, food? Next, ask them where it goes. Assist them in thinking through the route the classroom garbage takes. For example, the custodian empties it into his cart, he bags it and takes it to the dumpster behind the school, the city garbage truck picks it up on Thursdays, and so on.
- Next, show students the photographs on the front and back covers. Explain to students that these are pictures of landfills—the places where garbage is taken and stored—and that they will learn more about them in this book.



Lesson Plan (continued)

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Preview the Book Introduce the Book

- Give students their copy of the book. Guide them to the front and back covers and read the title. Have students discuss what they see on the covers. Encourage them to offer ideas as to what type of book it is (genre, text type, and so on) and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, author's name).

Introduce the Reading Strategy: Summarize

- Direct students to the table of contents. Remind students that the table of contents provides an overview of what the book is about. Ask students what they expect to find out about in each section.
- Have students preview the rest of the book, looking at illustrations, photographs, captions, and other text features. Show students the glossary and explain its purpose.
- Explain to students that one way to understand and remember information in a book is to stop now and then during reading to summarize in their mind what they are reading about in the book.
- Model how to summarize.

 Think-aloud: As I read this book, I am going to stop every now and then to remind myself about the information I have read so far. This helps me remember what I'm reading and makes me think about new information. When I finish reading the book, I should be able to tell, in my own words, some of the information about garbage and landfills that I have read about.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

Introduce the Comprehension Skill: Sequence events

- Review or explain that writers present the events of a story or text in a particular order. Signal words are often provided to help readers identify the order of the events. Ask students to identify examples of signal words (today, first, next, then, last, finally, dates, and so on).
- Model how to sequence events.
 Think-aloud: I know that a process, like a story, also has a sequence of events. For example, when I call someone on my cell phone, first I turn the phone on. Next, I dial the number using the number pad on the phone, or I find the person in my contact list. Then, I hit send. Last, I speak into the phone.
- Have volunteers explain the order of a simple process, such as making a sandwich or getting ready for school. Use time-order words (*first, next,* and so on) to record the steps on the board.

Introduce the Vocabulary

- Have students turn to the table of contents on page 3, and read the section titles. Ask volunteers to predict what these items might have to do with landfills.
- Point out the glossary at the back of the book. Review or explain that a glossary and a dictionary contain lists of words and their definitions.
- Model how students can use the dictionary to find a word's meaning. Have them locate the word biodegradable in the dictionary. Invite a volunteer to read the definition for biodegradable. Have students compare the dictionary definition with the glossary definition. Have them compare these with their prior knowledge of the word. Point out that often a dictionary lists more than one definition for a word or may only list the root word. Explain to students that often they will have to find the root word and read all of the definitions or entries to find the meaning or verb tense that most closely represents the context that the word appears in.
- Have students follow along on page 11 as you read the paragraph in which the word biodegradable is found to confirm the meaning of the word. Repeat the exercise with the remaining vocabulary words.



Lesson Plan (continued)

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Set the Purpose

• Have students read to learn about landfills and trash collection.

During Reading

Student Reading

- **Guide the reading:** Have students read to the end of page 4. Encourage those who finish before others to reread the text. When students are ready, discuss the important information they identified.
- Model summarizing important information in the book.

 Think-aloud: As I read the first section, I paused to summarize in my mind what I learned about trash in the past. For example, I read that people in ancient Troy used to just throw their garbage on the floor and then cover it with a layer of dirt. I also read that it's not that different from what we do today! I'll keep reading to learn what the author means by that. While I read, I'll summarize what I've read to help me remember the new information.
- Check for understanding: Have students read to the end of page 6 and study the diagrams. Invite some students to share the important information in the section "Trash Today." Ask other students to summarize "How Much Trash Do We Create?" Ask students how the charts on pages 5 and 6 support or are connected to the text.
- Remind students again about what it means to sequence information in text. Point out that some sections of this book present information that describes a process or a sequence, and some sections do not. Review the information in the first three sections, and ask students if they were written in a sequential structure or described a process (no).
- Have students read page 7, and then ask them if this section has a sequential structure to it. Explain that a sequence of events can usually be written out as a list, and model for students how to summarize this section by writing the sequence in a list on the board. For example:

Truck unloads trash into a cell

Heavy truck drives over trash and smashes it down

Bulldozer covers trash with dirt

• Have students read the remainder of the book. Remind them to think about the details in each section so they can summarize the information after they read and to pause after each section and decide if it has a sequential structure.

Have students make a question mark in their book beside any word they do not understand or cannot pronounce. Encourage them to use the strategies they have learned to read each word and figure out its meaning.

After Reading

• Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

Reflect on the Reading Strategy

- Ask students to explain how the strategy of summarizing helped them understand the book.
- Think-aloud: I know that summarizing keeps me actively involved in what I'm reading and helps me understand and remember what I've read. I know that I will remember more about landfills because I summarized the information in my own words as I read the book.

Reflect on the Comprehension Skill

- **Discussion**: Review with students the process garbage goes through to be processed at a landfill. Refer students to page 10, and ask them to recall the functions of the seven items in the illustration.
- Independent practice: Introduce, explain, and have students complete the sequence events worksheet. If time allows, discuss their responses aloud.



Lesson Plan (continued)

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• Enduring understanding: In this book, you read about landfills, the environmental concerns associated with them, and some ideas for the future of trash. Now that you know this, what will you think about the next time you throw something in the trash can?

Build Skills

Grammar and Mechanics: Prepositions

- Review or explain that *prepositions* are words that show a relationship between things. They provide information about the location (*inside*, *outside*, and so on), direction (*to*, *under*, *over*, and so on), and time when something happens (*after*, *before*, *during*, and so on). Prepositions also can explain the relationship between two words (*about*, *with*, and so on).
- List common prepositions on the board, such as about, after, before, below, between, during, for, in, of, out, over, through, until, and with.
- Have a volunteer draw a rabbit on the chalkboard. Have another volunteer draw a log in front of the rabbit. Write the following sentence on the board: *The rabbit goes* _____ *the log.*
- Draw lines from the rabbit over, under, through, beside, and to the log one at a time. Have volunteers fill in the blank with the correct preposition.
- Write the following sentence on the board: *People living in the ancient city of Troy threw their garbage on the floor.* Point to the word *in.* Have a volunteer explain how the preposition is used in this sentence (it explains where they lived). Point to the word *on* and repeat the process.
 - Check for understanding: Have students look through the text and circle examples of prepositions. On the board, record the prepositions students identify in the book. Discuss the type of information each preposition provides (how, when, where, why, and so on) and how each one links the words in the sentence.
- Independent practice: Introduce, explain, and have students complete the prepositions worksheet. If time allows, discuss their answers aloud after students finish.

Word Work: Suffix -ion

- Have students define the word *suffix*. (A suffix is a word part added to the end of a base word to change the meaning of the word or to change its part of speech.) Have students provide examples of suffixes and explain how each one changes the meaning of the original word.
- Write the word *quest* on the board. Ask a volunteer to tell the meaning of the word or to look it up in the dictionary (to search for). Write the word *question* on the board. Explain that the suffix -ion has been added to make a new word. Ask a volunteer to tell the meaning of the new word (to ask for further information about something).
- Ask students to explain the similarities between the meanings of the two words (both definitions involve the search for more information).
- Explain that the suffix -ion means the act of doing something.
- Write the word *locate* on the board. Have a volunteer use the dictionary to find the definition of the word *locate* (to identify or discover the place of something). Write the word *location* on the board. Have students use the definitions of the word and the *-ion* suffix to explain the meaning of the new word (the place or position of something).
- Explain that when the -ion suffix is added, the spelling of the base word may change. Ask a volunteer to tell how the spelling of the base word *locate* was changed when the suffix was added (the e was dropped before adding the suffix -ion).
- Check for understanding: Write the words protect and explode on the board. Ask students to define each word. Have them tell whether a spelling change is needed when the suffix is added. Have volunteers write the new words on the board: protection and explosion. Discuss how the meaning of each word was altered when the suffix was added.
- Independent practice: Introduce, explain, and have students complete the suffixes worksheet. Discuss their answers aloud after students finish.



Lesson Plan (continued)

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Build Fluency

Independent Reading

• Allow students to read their book independently. Additionally, partners can take turns reading parts of the book to each other.

Home Connection

• Give students their book to take home to read with parents, caregivers, siblings, or friends. Have students summarize what they learned about landfills.

Extend the Reading

Informational Writing Connection

Provide print and Internet resources for students to further research one of the three ways trash is processed (see http://www.wm.com/about/community/pdfs/follow the waste stream.pdf for a useful diagram), and invite students to add to the knowledge learned in the book by finding three additional facts about what happens to trash and how it can be used to create energy. Citing information from their research on note cards, have students participate in a roundtable sharing and discussion format.

Visit WritingA–Z.com for a lesson and leveled materials on informational writing.

Science Connection

Provide Internet and print resources to introduce students to composting and its benefits. Gather materials ahead of time to set up a classroom compost pile. Have students bring in organic waste to observe over time.

Skill Review

Discussion cards covering comprehension skills and strategies not explicitly taught with the book are provided as an extension activity. The following is a list of some ways these cards can be used with students:

- Use as discussion starters for literature circles.
- Have students choose one or more cards and write a response, either as an essay or as a journal entry.
- Distribute before reading the book and have students use one of the questions as a purpose for reading.
- Cut apart and use the cards as game cards with a board game.
- Conduct a class discussion as a review before the book guiz.

Assessment

Monitor students to determine if they can:

- consistently use the strategy of sequencing to comprehend the text during discussion and on a worksheet
- accurately sequence events of a nonfiction text on a worksheet
- correctly identify and use prepositions during discussion and on a worksheet
- accurately identify the addition of the -ion suffix on base words and how it changes the meaning of the word during discussion and on a worksheet

Comprehension Checks

- Book Quiz
- Retelling Rubric