

Focus Question:

Where does sewage go, and how is it treated?

Book Summary

Text Type: Nonfiction/Informational

Everyone uses the restroom, but did you ever stop to think what happens to your waste after you flush the toilet? *What Happens When You Flush?* provides students a comprehensive look at where sewage goes and how it is treated in our communities. A thought-provoking topic and interesting facts will keep students engaged in this book while also giving them a chance to summarize and determine the author's point of view.

The book and lesson are also available for levels O and R.



Lesson Essentials

Instructional Focus

- ☐ Summarize to understand text
- ☐ Determine author's point of view
- ☐ Describe information provided by the table of contents
- ☐ Recognize and use prepositional phrases
- ☐ Identify and use homographs correctly in sentences

Materials

- ☐ Book: *What Happens When You Flush?* (copy for each student)
- ☐ Summarize, prepositional phrases, homographs worksheets
- ☐ Discussion cards
- ☐ Book quiz
- ☐ Retelling rubric

Vocabulary

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

• Words to Know

Story critical: *clarifier* (n.), *digester* (n.), *septic system* (n.), *sewage* (n.), *sewage treatment plant* (n.), *sewerage systems* (n.)

Enrichment: *aeration* (n.), *drainage field* (n.), *effluent* (n.), *methane* (n.), *organisms* (n.), *percolate* (v.)

- **Academic vocabulary:** *alike* (adj.), *allow* (v.), *complex* (adj.), *expert* (n.), *instead* (adv.), *remove* (v.)

Guiding the Reading

Before Reading

Build Background

- Place on the board a photograph of a toilet. Ask students if they know what happens to the waste and water when they flush the toilet. Invite volunteers to share their ideas with a partner.
- Have students draw a diagram to show what they think happens to the waste and water after it is flushed down the toilet. Encourage them to use labels to explain their diagram. Invite students to share their diagrams with the class.

Introduce the Book

- Give students their copy of *What Happens When You Flush?* 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

Explain to students that engaged readers summarize, or create a brief overview, as they read. Ask students to preview the book, looking at photographs, captions, and other text features. Explain to students that when readers summarize what they read, it helps them remember information in one section or the whole book. Point out that a summary often answers the questions *Who*, *What*, *When*, *Where*, and *Why*. Write these question words on the board. Have students work with a partner to read "Where Does Waste Come From? Where Does It Go?" (pages 5 and 6). Invite partners to share the who, what, when, where, and why of that section. Record this information on the board under the correct headings.

Introduce the Comprehension Skill:

Author's point of view

- Explain to students that when an author writes about a topic, he or she often expresses his or her attitude and opinion about the subject. Explain

Guiding the Reading (cont.)

that this is called the *author's point of view*. Discuss with students that the author's point of view is often expressed through his or her purpose for writing: to inform, to persuade, or to entertain the reader. Point out that although an author's purpose when writing a nonfiction book is usually to inform, we can often infer how the author feels about the topic from the details included in the book.

- Explain to students that, as they read the book, they will be looking for details that reveal the author's point of view.

Vocabulary

Have students turn to the "Words to Know" box on the copyright page. Discuss each word with students. Then, have students turn to the glossary on page 16. Explain that the glossary provides definitions for the vocabulary words in the book. Point out the use of each content word and academic vocabulary word in the book, and then use each word in a different model sentence. Have students work in groups to create posters for these words. Have them include on each poster the word and its part of speech, the definition, the word in an example sentence, and a picture illustrating the meaning of the word.

Set the Purpose

- Have students read to find out more about where sewage goes and how it is treated after it is flushed down the toilet. Write the Focus Question on the board. Invite students to look for evidence in the book to support their answer.
- Have students make a small question mark in their book beside any word they do not understand or cannot pronounce. These can be addressed in a future discussion.

During Reading

Text-Dependent Questions

As students read the book, monitor their understanding with the following questions. Encourage students to support their answers by citing evidence from the book.

- *What is sewage? How is it created?* (level 1) page 5
- *How is sewage disposed of differently in different parts of the world?* (level 3) page 6
- *What are the steps of one of the common systems of sewage removal?* (level 2) pages 8–9
- *How is sewage removal in rural areas different from sewage removal in urban areas?* (level 3) multiple pages
- *What must happen when septic tanks become full?* (level 1) page 11
- *How do the sewage systems of the past compare to systems today?* (level 3) multiple pages

- *Where did night-soil men get their name?* (level 3) pages 13–14
- *Why did the author write this book about sewage removal systems?* (level 3) multiple pages

Text Features: Table of contents

Explain that the table of contents is a list of the sections in a book. Discuss that it can be used to find information quickly and is located at the front of the book. Have students turn to page 3 of the book. Ask students what they can expect to read about in this book. Have students work with a partner to predict what information each section might contain. Ask students: *How does the table of contents help you create a summary of the book? In which section might you learn more about the history of sewage? On what page does this section begin? Which section tells more information about septic systems?* Continue to ask students about information from the table of contents and on which pages they will find the information.

Skill Review

- Review how to summarize with students. Have students turn to page 7 and reread the section "Inside the Treatment Plant." Have students work with a partner to list the who, what, where, when, and why *from the section*. Then have students create a short oral summary using this information. Invite volunteers to share their summary with the class.
- Model how to complete the [summarize worksheet](#).
- Review with students that an author of a nonfiction book often expresses his or her point of view about a topic. Have students turn to page 15 and reread the last paragraph.
- Model identifying the author's point of view. **Think-aloud:** *I know that an author includes details in his or her writing that reflect his or her beliefs or feelings about a topic. When I read, I look for details that the author includes to make a point about the topic. For example, on page 15, the author writes: "So, the next time you flush, take a moment to appreciate the wonders of the modern sewerage system!" This sentence tells me the author's point of view on sewerage systems and how important they are to our communities. I will look for other phrases and key words throughout the story that tell the author's point of view.*
- Have students work with a partner to reread different sections of the book and look for examples of the author's point of view. Invite partners to share their findings with the class.

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.

Guiding the Reading (cont.)

Skill Review

Graphic Organizer: Summarize

Review the summarize worksheet that students completed. Have students share their work in groups. Invite volunteers to share with the rest of the class the details they chose and how they used those details to create a summary for the book.

Comprehension Extension

Discussion cards covering comprehension skills and strategies not explicitly taught with the book are provided for extension activities.

Response to Focus Question

Have students cite specific evidence from the book to answer the Focus Question. (Answers will vary. Sample: *Most sewage goes into underground sewer pipes that connect to the local sewage treatment plant. Here, the water is cleaned, and things that can make people sick are removed. Some sewage also goes into septic tanks, which are tanks buried underground that hold the waste until it is cleaned out.*)

Comprehension Checks

- Book quiz
- Retelling rubric

Book Extension Activities

Build Skills

Grammar and Mechanics: Prepositional phrases

- Write the following sentence on the board: *I'll brush my teeth after breakfast.* Point out the word *after*. Ask students to explain the word's meaning in the sentence (*it explains when something will be done*).
- Review or explain that *after* is a *preposition* and that prepositions are words that show a relationship between things. Further explain that they provide information about where, when, how, why, and with what something happens. Ask students to identify possible prepositions that identify where, when, how, why, or with what something happens. Record this list on the board. A list of common prepositions includes *aboard, about, above, across, after, against, along, among, around, at, before, behind, below, beneath, beside, between, beyond, but, by, down, during, except, for, from, in, inside, into, like, near, of, off, on, out, over, past, since, through, throughout, to, toward, under, underneath, until, up, upon, with, within, and without*.
- Explain that a *phrase* is a short group of words and that a *prepositional phrase* is a group of words beginning with a preposition and ending with the object of the preposition. Refer to the sentence *I'll brush my teeth after breakfast.* Ask students to identify the prepositional phrase (*after breakfast*).

- **Check for understanding:** Have students look through the text and circle examples of prepositional phrases. Have them share what they found with the class. Circle the prepositions listed on the board that students identify in the text and discuss the type of information each prepositional phrase provides (*how, when, why, and so on*) and how each one links the words in the sentence.
- **Independent practice:** Introduce, explain, and have students complete the [prepositional phrases worksheet](#). If time allows, discuss their answers.

Word Work: Homographs

- Write the word *palm* on the board and draw a picture of a hand. Ask students to turn to a partner and use the word *palm* in a sentence. Then draw a picture of a palm tree and ask students to create a new sentence. Invite volunteers to share their sentences with the class.
- Review or explain that *homographs* are multiple-meaning words. Explain that they are spelled the same and sound the same, but they have two different meanings.
- Put students into groups, and give each group the following five words: *roll, jam, fine, mark, ball*. Have groups create two versions of each word, with pictures and sentence examples. Have groups share their work with the class.
- **Check for understanding:** Write the following words on the board: *slide, wave, duck*. Have students write two sentences for each word on a separate sheet of paper, reflecting the two different meanings of each word.
- **Independent practice:** Introduce, explain, and have students complete the [homographs worksheet](#). If time allows, discuss their answers.

Connections

- See the back of the book for cross-curricular extension ideas.