



About the Book

Text Type: Nonfiction/Informational Page Count: 16 Word Count: 1,216

Book Summary

Oil is a very important source of energy. But Earth has a limited amount of it, and finding and collecting oil can be difficult and dangerous. In *Deep Trouble: The Gulf Coast Oil Spill*, find out what happened in the Gulf of Mexico in April 2010. After reading this book, do you think drilling for oil in the ocean is worth the risk?

About the Lesson

Targeted Reading Strategy

- Ask and answer questions

Objectives

- Use the reading strategy of asking and answering questions to understand text
- Understand and identify cause-and-effect relationships
- Identify and understand the use of colons
- Identify and use syllable patterns to divide two- and three-syllable words

Materials

Green text indicates resources available on the website

- Book—*Deep Trouble: The Gulf Coast Oil Spill* (copy for each student)
- Chalkboard or dry erase board
- [KWLS/ask and answer question questions, cause and effect, syllable patterns worksheets](#)
- [Discussion cards](#)



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

Vocabulary

- Content words:

Story critical: *absorb (v.), contaminated (adj.), minimize (v.), oil slick (n.), refineries (n.), toxic (adj.)*

Enrichment: *engulfed (v.), guarantee (v.), inferno (n.), precaution (n.), wetlands (n.)*

Before Reading

Build Background

- Write the word *oil* on the board. Ask students to share what they know about oil, for example, what we use it for, how we get it, and so on. Explain that oil is a very important energy source, but it can be risky trying to get it. Accidents sometimes happen, and huge oil spills can be created. Ask students if they have heard about the great disaster in the Gulf of Mexico in April 2010.
- Create or project a KWLS chart on the board and distribute the [KWLS/ask-and-answer-question questions worksheet](#). Review or explain that the *K* stands for knowledge—information we already know. The *W* stands for information we want to know, the *L* stands for the knowledge we learn as we read the book, and the *S* stands for what we still want to know about the topic after reading the book. As various topics and facts are discussed, fill in the first column (*K*) on the board with information students know about the topic. Have students complete the same section of their KWLS worksheet.

- Ask students what they would like to know about oil, how we get it, and how oil accidents occur. Have them fill in the second column (*W*) of their worksheet. Write their questions on the class chart.

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, fiction or nonfiction, 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).
- Preview the table of contents on page 3. Remind students that the table of contents provides an overview of the book. Ask students what they expect to read about in the book, based on what they see in the table of contents. (Accept all answers that students can justify.)

Introduce the Reading Strategy: **Ask and answer questions**

- Discuss how recalling prior knowledge about a topic, and asking and answering questions while reading, can help readers understand and remember the information in a book.
- Direct students to the table of contents. Use it as a way to model asking questions.
Think-aloud: I can use the table of contents to think of questions I'd like to have answered about oil spills. For example, the first section is titled "Explosion Aboard the Deepwater Horizon." I wonder if Deepwater Horizon is the name of a ship. I also want to know how the explosion occurred. I will write these questions in the W column of my chart. I think this section of the book will answer my questions.
- Have students look at the other section titles. Write any questions they have, based on the cover photographs and table of contents, in the *W* column of the KWLS chart on the board. Have students record these questions on their worksheet.
- Have students preview the rest of the book, looking at diagrams, photographs, and captions. Point out that these all contain other information about oil spills. Show students the glossary. Have them add any additional questions they might have about the book to their KWLS chart. Write shared questions on the class chart.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

Introduce the Comprehension Skill: **Cause and effect**

- Discuss cause-and-effect relationships. Explain that a *cause* is an action or event that makes something happen, and the *effect* is what happens because of, or as a result of, the action or event.
- Model cause-and-effect.
Think-aloud: I know that there are reasons, or causes for events to happen. When the temperature outside is very cold and it drops below 32 degrees Fahrenheit (0 degrees Celsius), a puddle of water will freeze. The cause is the temperature dropping; the effect is the puddle freezing.
- Explain to students that there can be more than one effect that results from a cause. Ask students what else can happen when the temperature drops below 32 degrees Fahrenheit.
- Tell students that they will be looking for cause-and-effect relationships as they read the book.

Introduce the Vocabulary

- Model strategies that students can use to work out words they don't know. For example, they can use what they know about letters and sounds, base words, prefixes, and suffixes. They can also use the context to work out meanings of unfamiliar words.
- Have students find the word *engulfed* on page 4. Ask students how they might read this word if they don't already know it. Suggest that they look at how it starts and point out the *en* prefix. They might recognize the base word *gulf* and the suffix *ed*.


- Remind students to look for clues to a word's meaning in the sentence that contains the unfamiliar word, as well as in sentences before and after. Read aloud the paragraph on page 4 and ask students to infer what the word *engulfed* might mean.
- Explain to students that sometimes they will not find any context clues that define an unfamiliar word. Point out the glossary at the back of the book. Review or explain that a glossary contains a list of words from the book and their definitions. Model how students can use the glossary to locate a word's meaning. Have a volunteer read the definition for *engulfed* in the glossary. Compare the glossary definition with the sentence containing the word on page 4.
- Have students locate other content vocabulary words in the glossary and text. Read and discuss their definitions as a class.

Set the Purpose

- Have students read to find out about oil spills. Remind them to look for the answers to their questions and to think about cause-and-effect relationships as they read.

During Reading

Student Reading

- **Guide the reading:** Have students read to the end of page 5. Remind them to look for information that will answer questions on their KWLS chart.
 - When they have finished reading, have students discuss the information in this section and share what they learned about the explosion. Have students circle any questions on their KWLS chart that were answered and add any new questions that were generated.
 - Model answering a question on the KWLS chart and filling in additional information.
Think-aloud: I wanted to know if the Deepwater Horizon was a ship. I found out that it is an oil-drilling rig forty-two miles off the coast of Louisiana. I also wanted to know what caused the explosion. This section did not tell me what caused the explosion. I will have to keep reading. I'll write what I learned in the L column of my chart. This section ends by saying that no one knew how serious the disaster would become. This makes me wonder about what happened after the explosion. I'll write this question in the W column of my chart.
 - Create a two-column cause-and-effect chart on the board. Label one side *Cause* and the other side *Effect*. Write *Oil rig explodes* under the *Cause* heading. Ask students to use the text and think-aloud discussion to identify the effect of this cause (*eleven workers died, and many others were injured*). Write this information under the *Effect* heading.
 - Introduce and explain the [cause-and-effect worksheet](#). Ask students to write the information from the board on their worksheet. Have them identify and write on their worksheet a cause-and-effect relationship that happens as a result of the *Deepwater Horizon* experiencing a second explosion (*it sunk to the bottom of the ocean*).
 - **Check for understanding:** Have students read pages 6–8. Have them write answers they found while reading in the *L* column of their KWLS worksheet and additional questions they raised in the *W* column. Invite them to share the information they learned and the questions they generated as they read the book. Record shared responses on the class KWLS chart.
 - Have students identify and write on their worksheet a cause-and-effect relationship that happened as a result of the safety valve failing. (*Cause: Safety valve fails; Effect: Oil begins leaking into the ocean.*)
 - Have students read the remainder of the book. Encourage them to continue looking for and writing answers to their KWLS worksheet questions and to add new questions as they read. Remind them to continue thinking about cause-and-effect relationships.
-  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 share questions they added to their KWLS worksheet while reading, and ask them what questions were answered (or not answered) in the text.
- **Think-aloud:** *I wanted to know what happened after the explosion. I found out that millions of gallons of oil began leaking into the ocean. I also learned that the company that owns the rig tried several things to stop the leak; finally, on September 19 the well was plugged for good.*
- Reinforce that asking questions before and during reading, and looking for the answers while reading, keeps readers interested in the topic. It also encourages them to keep reading to find answers to their questions. It also helps them understand and remember what they have read.
- **Independent practice:** Point out to students that all of their questions may not have been answered in this text. Encourage them to fill in the final column (S) of their chart with information they would still like to know about oil spills. Brainstorm other sources they might use to locate additional information to answer their questions.

Reflect on the Comprehension Skill

- **Discussion:** Discuss with students the information on their cause-and-effect worksheet. Point out that sometimes one effect leads to another, and so on. Return to the chart on the board and explain how the last effect you recorded (oil leaking into the ocean) causes other effects—wildlife and people are harmed, and it hurts the fishing and tourism industries as well.
- **Independent practice:** Have students complete their worksheet by identifying at least one more cause-and-effect relationship. If time allows, have them share their findings.
- **Enduring understanding:** In this book, you read about how important oil is to people and also how it can also harm us and the environment if an accident happens. Now that you know this, do you think we should continue drilling for oil in the ocean?

Build Skills

Grammar and Mechanics: Colons

- Review or explain that a colon is a punctuation mark (:) used before a long quotation, an explanation or example, or a series. It also is used after the salutation in a formal letter.
- Direct students to the title page, and point out the title, *Deep Trouble: The Gulf Coast Oil Spill*. Ask students how the colon is used in this instance (to set off further explanation of “deep trouble”).



Check for understanding: Have students turn to page 13, and point out the colons starting in the middle of the page and continuing over to page 14. Ask them to explain the purpose of the colons in this section (to set off a series of explanations of cleaning methods).

Word Work: Syllable patterns

- Review or explain that it is important to know how to divide words into syllables, both for speaking and for reading.
- Review the following syllable rules and provide an example of each:
 1. Each syllable is a “beat” of a word.
 2. Every syllable has only one vowel sound.
 3. Words are divided between syllables.
 4. When two consonants come between two vowels, the word is divided between the consonants. Example: *wonder/won-der*
 5. A prefix or suffix usually makes a separate syllable. Example: *longest/long-est*
 6. A consonant followed by *le* at the end of a word forms a separate syllable. Example: *table/ta-ble*
 7. Compound words are always divided between words.

- Write the words *drilling*, *plastic*, and *below* on the board, and ask students to say each word. Have them tell the number of syllables in each word, and write the numbers that students provide next to the words.
- Model and discuss with students where the syllable break comes in each word and why (*drilling*, suffix; *escape*, vc/cv; *below*, one vowel per syllable).
- ✍ **Check for understanding:** Write the following words on the board: *nearby*, *workers*. Ask students to use the inside back cover of their book to write how each word should be divided into syllables and why. Discuss their responses.
- **Independent practice:** Introduce, explain, and have students complete the [syllable patterns worksheet](#). If time allows, have students discuss their answers.

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 share their KWLS worksheet with someone at home, explaining how it works and what they learned.

Extend the Reading

Informational Writing and Art Connection

Ask students to choose one question they still have from the S column of their KWLS worksheet. Provide print and Internet resources to allow students to research and find the answer. Require a well-structured paragraph. Provide paper for students to include a picture, or allow them to print a photograph from an approved website. Display their findings on a bulletin board or bind into a class book.

Visit [Writing A-Z](#) for a lesson and leveled materials on informational writing.

Science Connection

Use butcher paper to create a chart on the different ways oil spills can be cleaned up. Refer them back to pages 13–14. Set up a research center with a pan of water, and add vegetable oil to the water to create an “oil spill.” Have students brainstorm ways to absorb and clean the water. Then provide the materials for them to experiment (for example, paper towels, feathers, cotton balls) Record their findings on the chart.

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 quiz.

Assessment

Monitor students to determine if they can:

- consistently ask relevant questions about the topic prior to and during reading; locate answers to questions in text during discussion and on a worksheet
- understand and identify cause-and-effect relationships in the text during discussion and on a worksheet
- identify and understand the use of colons in discussion and in the text
- identify and understand how to syllabicate words from the text in discussion and on a worksheet

Comprehension Checks

- [Book Quiz](#)
- [Retelling Rubric](#)