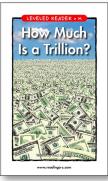




Lesson Plan

How Much Is a Trillion?



About the Book

Text Type: Nonfiction/Informational Page Count: 16 Word Count: 597

Book Summary

How Much Is a Trillion? teaches readers number sense while exploring the concept of large numbers. The text gives many concrete and engaging examples that students can relate to, as well as helping them understand just how one could make a million, a billion, and a trillion! Photographs, captions, and charts support the text.

About the Lesson

Targeted Reading Strategy

Summarize

Objectives

- Summarize to understand text
- · Identify main idea and details
- Identify vowel diphthong ou
- Identify and use contractions
- Read and understand number words

Materials

Green text indicates resources available on the website

- Book—How Much Is a Trillion? (copy for each student)
- Chalkboard or dry erase board
- Dictionaries
- Main idea and details/summarize, contractions, number words 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

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

Content words:

Story critical: billion (.), exact (adj.), million (n.), thousand (n.), trillion (n.), universe (n.)

Before Reading

Build Background

- Ask students to think of the largest number they know. (Write all appropriate responses on the board).
- If available, have a large jar of pennies or other small objects. Ask students how many objects they think are in the jar.
- Ask students what it would be like to have a thousand pennies. How much space would that take up? What about a million pennies?
- Explain to students that this book will help them to understand how big these big numbers are.



Lesson Plan (continued)



How Much Is a Trillion?

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 Comprehension Skill: Main idea and details

- Write the following list of words on the board: thousand, million, billion, and trillion. Ask students to describe what these words refer to (numbers). Point out that the definitions of these words help to identify the main idea (large numbers). These number words are details that support this main idea.
- Explain that sometimes the amount of information about a topic is so large that it is grouped into sections, and each section has its own main idea. Remind students that it is often useful to pay attention to subtitles for clues about the main idea. For this reason, good readers pay attention to—and don't skip—subtitles.
- Read pages 8 and 9 aloud to students. Model identifying the main idea and details of the first section.
 - Think-aloud: While reading, I will make sure to stop after each section to review in my mind the important details. First, I want to use the subtitles to help me find the main idea of this section. Next, I will decide which of the details are important and which are not. This section talks about how hard it is to picture, or visualize, a large number. I think that's the main idea of this section. On page 9, the example that tells me how long it would take to count to a million is an important detail for me to remember.
- Write the main idea on the board. Ask students to identify the details in the book that support this main idea. Write these details on the board.

Introduce the Reading Strategy: Summarize

- Explain to students that one way to understand and remember information in a book is to write a summary, or a brief overview, of the most important information in the text. Point out that a *summary* includes the main idea and one or two supporting details. It often answers the questions *who*, *what*, *when*, *where*, *why*, and *how*.
- Model summarizing the main idea and details from the first section on the board. Think-aloud: To summarize, I decide which information is most important to the meaning of a section. To do this, I can identify the main idea and important details and then organize that information into a few sentences. When I look at the main idea and details on the board, a summary of this section might be: It's hard to understand just how big some numbers are and what they might look like. Some numbers are so big that you could never count to them in your whole life.
- Write the summary on the board. Have students identify the main idea and details within the summary. Discuss how you used your own words to create the summary.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

Introduce the Vocabulary

• Write the following words from the content vocabulary on the board: exact, thousand, million, universe.



LEVEL M

Lesson Plan (continued)

How Much Is a Trillion?

- Point out that these four words can be found in the text and that most of the words in this group are used often in mathematics. Give groups of students four pieces of blank paper. Have them write or draw what they know about each word. Create a definition for each word using students' prior knowledge.
- Model how students can use a dictionary to find a word's meaning. Have them locate the word exact in the dictionary. Invite a volunteer to read the definition for exact. Have students compare the dictionary definition with their own definition.
- Have students follow along on page 14 as you read the sentence in which the word *exact* is found to confirm the meaning of the word. Repeat the exercise with the remaining vocabulary words.

Set the Purpose

Have students read the book to find out more about large numbers. As they read, encourage them to underline or highlight the important details in each section.

During Reading

Student Reading

- **Guide the reading**: Have students read to the end of page 6. Encourage those who finish early to go back and reread.
- Model identifying details.
 Think-aloud: While reading
 - Think-aloud: While reading, I'm making sure to stop after each section to review in my mind the important details. First, I reminded myself that the main idea of the text is Understanding large numbers. The first thing that I notice about page 6 is the subtitle "How Much Is a Million?" This subtitle gives me clues about the main idea of this section. As I read, I notice that the author gives me important details about how big a million is. The paragraph mentions that some of the biggest cities in the world have millions of people living in them. Based on what I've read, I think the main idea of the section is: A million is a very large number!
- Write the main idea on the board. Ask students to identify details that support this main idea (it has six zeros in it; some of the biggest cities in the world have millions of people; sometimes the lottery is a million dollars). Write these details on the board.
- Review how to create a summary from the main idea and details. Refer back to the summary created during the Introduce the Reading Strategy section. Discuss and create the summary as a class, and write it on the board. (A million is a very large number! It has six zeros in it when you write it. Some cities have millions of people in them. Sometimes people win a million dollars in the lottery).
 - Check for understanding: Have students read pages 7 through 9. Encourage them to underline or highlight important details as they read. Invite them to share the important details they underlined in the section titled "Ready or Not, Here I Come!" Write these details on the board. Divide students into groups and have them work with their group to identify the main idea from the details in the section. Discuss their responses as a class, and write a main idea on the board.
- Ask each group to use the main idea and details of the section to write a brief summary on a separate piece of paper. Have them share what they wrote with the class.
- Have students read the remainder of the book. Encourage them to continue to underline important details as they read the rest of the book.
 - 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.



Lesson Plan (continued)



How Much Is a Trillion?

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 Comprehension Skill

- **Discussion**: Discuss how stopping to review the important details as they read helped students to remember the facts and better understand the information in the book.
- Invite students to share the important details they underlined on page 14. Write these details on the board. Divide students into small groups. Have each group work together to identify the main idea from the details and write this information on a separate piece of paper. (A trillion is a very large number.) Discuss their responses as a class.
- Independent practice: Introduce and explain the main-idea-and-details/summarize worksheet to students. Have them write a main idea and supporting details for the section titled "Big Numbers are Useful." If time allows, discuss their responses.

Reflect on the Reading Strategy

- Review with students how the main idea and details of each section can be used to develop
 a summary. Discuss with them the benefits of summarizing information they read (to understand
 the main point of a larger piece of writing). Invite students to share instances in which
 summarizing might be helpful.
- Independent practice: Have students complete their main-idea-and-details/summarize worksheet by writing a summary for the section titled "Big Numbers are Useful." If time allows, discuss their responses.
- Enduring understanding: In this book, you learned about some ways to understand just how big some numbers are. The next time your parent or caregiver says, "I've told you a million times...," what will you say to him or her?

Build Skills

Phonics: Vowel diphthona ou

- Write the word *count* on the board and have students find and read the sentence in which the word is found on page 5. Ask students what sound they hear in the middle of the word. Point out that in this word, the *ou* dipthong creates a sound like /ow/. The same sound can be created with the spelling *ow* as in *crowd*.
- Write the word our on the board and have students find and read the sentence in which it is found on page 9. Ask them what sound they hear and how it is spelled.
- Write the word would on the board. Ask students what sound the vowel combination ou in the word makes (long /o/). Remind them that the ou combination can have other sounds as well.
- Challenge students to find another word with the ou dipthong in the book (thousand, p.4) and to create their own list of ou words (cloud, proud, crowd, loud, and so on).

Grammar and Mechanics: Contractions

- Write the following sentence on the board from page 5 of the text: Some numbers are so big that you couldn't count them up in your whole lifetime. Ask a volunteer to come to the board and circle the contraction. Explain that sometimes in written and spoken language, we combine two words to make a contraction. When these two words are joined, some of the letters are taken out and replaced by an apostrophe. In this example, couldn't comes from could not, and the o is taken out. An apostrophe takes the place of the o and helps the reader to see that this word is a contraction.
- Ask students if they can name other common contractions. Write a list on the board.
- Have students turn to page 7. Ask them to find the following sentence: I've told you a million times. Ask a volunteer to identify the contraction (I've). Ask what two words the contraction I've is made up of (I have). Discuss the location of the apostrophe.





Lesson Plan (continued)

How Much Is a Trillion?

- Check for understanding: Write the following sentence on the board: What's the biggest number you can think of? Have students write the word that is a contraction on a piece of paper. Ask them to circle the apostrophe and see if they can identify the two words that were combined to make this contraction (What is).
- Independent practice: Introduce, explain, and have students complete the contractions worksheet. Discuss their answers aloud after students finish.

Word Work: Number words

- Explain that when reading aloud, readers will sometimes encounter different symbols, numbers, and abbreviations in the text. Good readers read these parts of the text fluently, just as they read the words.
- Direct students to page 6. Ask them to find the number in the text (1,000,000). Review or explain that the number is called a *cardinal number* and that it is used to describe an amount. Point out that a cardinal number is read in the same manner as the written word(s) for the number. Practice reading the number and symbol aloud.
- Check for understanding: Have students turn to page 7. Ask them to find a number in the text (273). Have volunteers read the number aloud. Write the number on the board using its word equivalent. Ask another volunteer to find a number on this page that is written as a word (million). Challenge a volunteer to come to the board to write the number as a numeral. Ask the other students to count the number of zeros to see if the volunteer was correct.
- Independent practice: Introduce, explain, and have students complete the number words worksheet. If time allows, 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 practice identifying the main idea and supporting details with someone at home.

Extend the Reading

Informational and Narrative Writing Connection

Provide print resources (for example, *How Much is a Million?, If You Made a Million,* and *Millions to Measure* by David M. Schwartz) and Internet resources for students to further research large numbers. Using information from their research, have them write a one-page report on the information found. Then have them choose something they would like to have a million of and write a narrative with the title "If I Had a Million ______." Require an error-free final copy and at least one illustration. Bind all of the stories together to make a class book with its own front and back cover.

Visit Writing A-Z for a lesson and leveled materials on expository writing.

Elements of Nonfiction Connection

Remind students of the importance of using subtitles and the table of contents to help them identify the main idea and to easily skim a text for information. Using the text, ask them to use the table of contents and the subtitles to help them quickly find the page number that would help them understand how big a billion is.



LEVEL M

Lesson Plan (continued)

How Much Is a Trillion?

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:

- identify the main idea and supporting details to better understand the text in discussion and on a worksheet
- accurately use main-idea statements and supporting details to write a summary in their own words
- fluently read the ou vowel diphthong during discussion and independently
- recognize and use contractions during discussion and on a worksheet
- understand and use large numbers in both numerical and written form

Comprehension Checks

- Book Quiz
- Retelling Rubric