



About the Book

Text Type: Nonfiction/Informational Page Count: 24 Word Count: 1,395

Book Summary

The Internet is an introduction to the network that connects millions of computers around the world. The book explains how it began, how information is sent from computer to computer, and how the Internet itself works. Photographs and illustrations support the text.

About the Lesson

Targeted Reading Strategy

- Summarize

Objectives

- Identify the main idea and supporting details in the text
- Summarize to understand the text
- Identify and use complex sentences
- Identify and use synonyms

Materials

- Book—*The Internet* (copy for each student)
- Chalkboard or dry-erase board
- Index cards
- Main idea and details, complex sentences, synonyms 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: **browser** (n.), **domain names** (n.), **Internet** (n.), **modem** (n.), **search engine** (n.), **URL** (n.)

Enrichment: **bandwidth** (n.), **bit** (n.), **broadband** (adj.), **byte** (n.), **clients** (n.), **fiber optic** (adj.), **IP address** (n.), **ISP** (n.), **multimedia** (adj.), **server** (n.), **WiFi** (n.)

Before Reading

Build Background

- Provide opportunities for students to explore the Internet. Cut out and post page 21: *Explore More*. Read steps 1 through 4 aloud and give students time to experiment. Brainstorm with students to create a list of possible appropriate subjects to search on www.google.com.
- Ask students to discuss what they already know about the Internet, and ask them to describe how they think it works.


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 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 Comprehension Skill: **Main idea and details**

- Write the following list of words on the board: *rowboat, tugboat, steamboat, sailboat*. Ask students to describe what these words refer to (different types of boats). Point out that the description of these words help to identify the main idea. (There are different types of boats.) The words *rowboat, tugboat, steamboat, and sailboat* are the 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.
- Read pages 4 and 5 aloud to students. Model identifying the main idea and details from page 5.

 **Think-aloud:** *As I read the second chapter, most of the sentences mention something about information and how it is exchanged. I think this chapter is about the exchange of information. I will underline this information. The sentences also mention how the Internet is a worldwide network, and information is exchanged through the Internet to any computer connected to it. Based on what I've read, I think the main idea of the chapter is: The Internet is a worldwide computer network used to exchange information.*

- Write the main idea on the board. Ask students to identify the details from the book that support this main idea (it connects millions of computers around the world, any computer connected to the Internet can exchange packets of information, and so on). Write these details on the board.

Introduce the Reading Strategy: **Summarize**

- Explain 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, when, where, what, and why*.
- Model summarizing the main idea and details from page 5 on the board.
Think-aloud: *To summarize, I decide which information is most important to the meaning of the chapter that would be important to remember. 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 chapter might be: The Internet is a worldwide network used to exchange information. This network connects millions of computers. Computers that are connected to the Internet can exchange information with each other around the world.*
- 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

- As students preview the book, ask them to talk about what they see in the photographs and diagrams. Reinforce the vocabulary words they will encounter in the text.
- Give groups of students a large sheet of poster paper with the following (story critical) vocabulary words: *Internet, modem, and search engine* written in a bubble drawn on the page. Have them write and draw what they know about each word, reminding them to collaborate and share ideas. Remind students that they can look for context clues in the text and photographs to help them define an unfamiliar word.


- When all groups are finished collaborating, invite them in to a class discussion. Ask volunteers to share their posters and what they know about their words. Create a class definition for each word, using students' prior knowledge.
- Review or explain that the glossary contains a list of vocabulary words and their definitions. Model how students can use the glossary or a dictionary to find a word's meaning. Have them locate the glossary at the back of the book. Invite a volunteer to read the definition for *Internet* in the glossary. Have students compare the definition with their prior knowledge of the word. Then have them follow along on page 4 as you read the sentence in which the word *Internet* is found to confirm the meaning of the word. Repeat the exercise with the remaining vocabulary words.
- Invite students to turn to the photograph on the cover. Have them write a short paragraph about the Internet, utilizing the three vocabulary words. Repeat the activity after reading the book, to check for student understanding of the vocabulary.


Set the Purpose

- Have students read the book to find out more about the Internet. Encourage them to underline or record on a separate piece of paper the important details in each chapter.

During Reading

Student Reading

- **Guide the reading:** Have students read from page 6 to the end of page 9. Encourage those who finish before others to reread the text. When students are ready, discuss the important information they identified.
- Model identifying the main idea and details.
Think-aloud: As I read the section titled "How Is Information Sent?" most of the sentences mentioned something about the types of cables or radio waves used to send information over the Internet. However, I also read a lot about how the bandwidth of the cables determines the speed and amount of information moving over the Internet at any given time. I will underline this information. Based on what I've read, I think the main idea of the chapter is: The speed at which an amount of information is sent through cables or radio waves over the Internet depends on bandwidth.
- Write the main idea on the board. Ask students to identify details that support this main idea (information flows through wire or fiber-optic cable, information can also be sent wirelessly on radio waves, greater bandwidth means that more information can travel through a cable, fiber-optic cable has a greater bandwidth and can carry more information, and so on). 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. (The speed at which an amount of information is sent through cables or radio waves over the Internet depends on bandwidth. Information can flow through wire or fiber-optic cable, or be sent wirelessly on radio waves. Fiber-optic cable has a greater bandwidth than wire cable. This means that it can carry much more information. The greater the bandwidth of the cable, the greater the speed and amount of information flowing through it.)
 **Check for understanding:** Have students read from page 10 to the end of page 14. Invite them to share the important details they underlined in the chapter. Write these details on the board. Have students work with a partner to identify the main idea from these details. (Retrieving information over the Internet involves a series of steps.) Discuss their responses as a class and write a main idea on the board.
- Ask students to use the main idea and details of the chapter to write a brief summary of the chapter on a separate piece of paper. Have them share what they wrote.

- Ask students to read the remainder of the book. Remind them to think about the important details in the book so they can summarize the information as they read.
-  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 skills and context clues.

Reflect on the Comprehension Skill

- **Discussion:** Discuss how stopping to review the important details helped students remember the facts and better understand the information.
- Invite students to share the important details they underlined on pages 15 and 16. 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. (The Internet has grown from a small to a large network of computers.) Discuss their responses as a class.
- **Independent practice:** Introduce, explain, and have students complete the [main-idea-and-details worksheet](#). If time allows, discuss their responses.

Reflect on the Reading Strategy

- Review with students how you combined the main idea and details from the section “How Is Information Sent?” to develop a summary for that section.
- **Enduring understanding:** In this book, you learned about the history of the Internet and how it is used to send and receive information around the world. Now that you know this information, how has the Internet affected your life and how do you think it will continue to affect people’s lives in the future?

Build Skills


Grammar and Mechanics: Complex sentences

- Write the following sentence on the board: *You are free to surf the Internet _____ you have access.*
- Have students read the sentence and suggest words that belong in the blank to complete the sentence (*if, once, when*).
- Review or explain that a *conjunction* is a word that joins together two parts of a sentence. Point to the examples students suggested to complete the sentence on the board. Explain that these conjunctions join parts of sentences together to form a *complex sentence*.
- List the following examples of conjunctions on the board (*after, although, as, because, before, if, once, since, so that, than, though, unless, until, when, while*).
- Reread the sentence on the board, including a conjunction in the sentence. (*You are free to surf the Internet once you have access.*) Underline *You are free to surf the Internet*. Explain that this part of the sentence is called the *independent clause* because it is a complete thought. Circle *once you have access*. Explain that the part of the sentence that includes and follows the conjunction is called the *dependent clause*. Point out that even though both sentence parts contain a subject and verb, the dependent clause does not express a complete thought and is not a sentence that can stand alone.
- Have students read the sentence with the dependent clause at the beginning (*Once you have access, you are free to surf the Internet.*). Point out that either sentence is correct. However when the dependent clause is at the beginning of the sentence, a comma often separates the clauses.
- Write the following sentence on the board: *Although client computers send and receive information, they don’t provide a service.*

Lesson Plan *(continued)*

The Internet

- Have students identify the conjunction (*although*), the dependent clause (*although client computers send and receive information*), and the independent clause (*They don't provide a service*). Point out that in this example, the dependent clause is at the beginning of the sentence.

 **Check for understanding:** Have students locate the following sentence from page 12 in their book: *Once the browser found the page you wanted, it made it possible for you to view the page on your computer.* Have students underline the dependent clause (*Once the browser found the page you wanted*) and circle the independent clause (*it made it possible for you to view the page on your computer*). Ask students to identify the conjunction (*once*).

- **Independent practice:** Introduce, explain, and have students complete the [complex sentences worksheet](#). If time allows, discuss their responses.

Word Work: **Synonyms**

- Write the word *changed* on the board and then read the third sentence in the book. Ask students to suggest a word that means almost the same thing (*altered, modified, transformed*). Review or explain that a word that means the same or almost the same as another word is called a *synonym*.
- Ask students to explain why the use of synonyms is important in writing (they help to describe something in text, they make the writing more interesting and varied, and so on). Have students provide examples of their thinking from the first paragraph (for example, *accumulate* instead of *gather*).
- Have students turn to page 12 and find the word *ask* in the last sentence on the page. Show students a thesaurus. Use the word *ask* to demonstrate how a thesaurus is used. Write synonyms for *ask* on the board. Point out that a thesaurus identifies synonyms for words.
- **Check for understanding:** Give pairs of students a thesaurus. Ask them to locate synonyms for the word *simple*. If needed, provide additional practice using a thesaurus.
- **Independent practice:** Introduce, explain, and have students complete the [synonyms worksheet](#). If time allows, discuss their answers aloud after they are finished.

Build Fluency

Independent Reading

- Invite students to read their book independently or with a partner. Encourage repeated timed readings of a specific section of the book.

Home Connection

- Give students their book to take home to read with parents, caregivers, siblings, or friends. Have students discuss with someone at home how to summarize a chapter using the main idea and details of the chapter.

Extend the Reading

Writing and Art Connection

Have students use the Internet to further research Tim Berners-Lee. Have them locate such information as: where he is from, his education, how he wrote the common network language, how he was recognized for his work, and so on. Have students use the information to write a brief biographical report.

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

Math Connection

Have students reread page 9, including the Math Minute box. Explain and discuss the concept of bytes, kilobytes, and megabytes. Have students solve the Math Minute question on a separate piece of paper. Discuss their answers. Then have them create their own Math Minute question about bytes, kilobytes, and/or megabytes. Circulate each question so that every student has an opportunity to solve it before answers are shared.

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.
- 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 through discussion and on a worksheet
- accurately use main idea statements and supporting details to write a summary in their own words
- correctly identify the parts of complex sentences; write complex sentences during discussion and on a worksheet
- correctly identify and use synonyms in the text and on a worksheet

Comprehension Checks

- **Book Quiz**
- **Retelling Rubric**