

Focus Question:

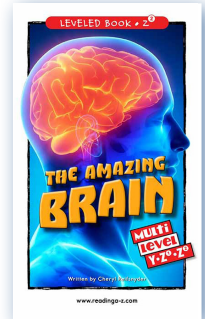
What makes the human brain amazing?

Book Summary

Text Type: Nonfiction/Informational

The human brain is an amazing organ. It controls every part of the body, from breathing to writing a symphony. In *The Amazing Brain*, students will learn how different parts of the brain perform different functions, the methods scientists use to learn more about the body's incredible control center, and most importantly, how to care for their own brains. Students will also have the opportunity to identify the main idea and details as well as to summarize the information from the text.

The book and lesson are also available for levels Y and Z1.



Lesson Essentials

Instructional Focus

- ☐ Summarize to understand text
- ☐ Identify main idea and details
- ☐ Recognize and understand the use of commas in a series
- ☐ Understand and use graphics to clarify text
- ☐ Identify and understand root words and their affixes

Materials

- ☐ Book: *The Amazing Brain* (copy for each student)
- ☐ Summarize, commas in a series, root words 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: *cerebrum* (n.), *corpus callosum* (n.), *decipher* (v.), *hemispheres* (n.), *lobes* (n.), *neurons* (n.)

Enrichment: *autonomic* (adj.), *brain stem* (n.), *cerebellum* (n.), *electrodes* (n.), *motor* (adj.), *network* (n.), *noninvasive* (adj.), *onset* (n.), *signals* (n.)

- **Academic vocabulary:** *complex* (adj.), *control* (v.), *enable* (v.), *energy* (n.), *entire* (adj.), *network* (n.)

Guiding the Reading

Before Reading

Build Background

- Ask students to follow these directions: *stand up, touch your nose, take a deep breath in and blow it out, close your eyes, open your eyes, and sit down.* Ask students which part of their body allows them to do all of those actions (*brain*).
- Have students discuss what they know about the brain and share their ideas with the class. Explain that they are going to learn more about the brain and why it is amazing.

Introduce the Book

- Give students their copy of *The Amazing Brain*. 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).
- 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, on the basis of what they see in the table of contents. (Accept all answers that students can justify.)

Introduce the Comprehension Skill:

Main idea and details

- Explain to students that most books have a main idea, or a general topic that is the subject of a book. The extra information and descriptions that help explain the main idea are the details of the book. Point out to students that the title of a book often provides clues about the main idea.
- Have students discuss with a partner their predictions about the main idea of the book. Invite students to share their predictions.

Guiding the Reading (cont.)

Introduce the Reading Strategy: **Summarize**

Explain to students that engaged readers can recall, talk about, and write about what they've read using main ideas and details from the text to summarize. A summary is a brief overview of the most important information in the text. Point out that essential details in a summary answer the questions *who, what, when, where, and why*.

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 19. Explain that the glossary provides definitions for the vocabulary words in the book. Point out the use of each of the vocabulary words 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 what makes the brain amazing. 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.

- *Why is the corpus callosum so important?* (level 2) page 8
- *What did scientists learn from Phineas Gage?* (level 2) pages 9–10
- *According to the diagram on page 10, which brain lobe is responsible for vision?* (level 1) page 10
- *Why is it important for scientists to study healthy brains?* (level 3) page 11
- *What benefit would people with disabilities have if computers could decipher a brain's electrical signals?* (level 3) pages 13–14
- *Why is brain protection the most important key to brain health?* (level 3) page 18

Text Features: **Graphics**

Explain that graphics include charts, graphs, and diagrams in a book that help the reader better understand the text. Have students review the graphics throughout the book and discuss how the visual display of information in the graphics helps clarify the written text. Ask students: *How would the book be different without the diagram showing the parts of the brain? How does the diagram showing the function of different brain lobes help the reader?*

Skill Review

- Guide students to an understanding of the main idea of the book (*the brain is an important part of the human body*). Write the main idea on the board.
- Draw a square around the main idea on the board. Draw four lines extending downward from the square and write the names of the four sections of the book: "The Brain," "Three Brains in One," "Studying the Brain," "Maintain Your Brain." Draw squares around each of these sections, and draw one line downward from each square for the main idea of each section. Then, draw three lines downward from each of the sections' main idea for details. This will create a web diagram on the board.

- Model identifying details that support the main idea of the book.
Think-aloud: *I know the overall main idea of this book: the brain is an important part of the human body. Each section of this book will also have its own main idea and details, which will support the book's overall main idea. In the first section, "The Brain," I read that the brain acts as the control center for the entire human body. This is the main idea of the first section. Since every main idea needs details to explain it, I will be looking for details that explain or describe how the brain acts as the control center for the entire human body. I will continue to look for main ideas and details from each section of this book as I read, which will also support the overall main idea of this book.*

- Have students work with a partner to identify three details that support the main idea from the first section of the book.
- Remind students to continue identifying the main idea and details from each section of the book as they read.

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 main idea and details from each section of the book and write them on the board. Put students into groups of four, and assign each student in the group a different section from the book to use to complete the **summarize worksheet**. Have students share their summaries with the group, and then ask groups to read their summaries aloud to the class in the correct sequence to create an overall summary of 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. (Students should include that the brain is amazing because it is the control center for the entire human body, and it is the reason humans can think, speak, hear, see, breathe, and so on.)

Comprehension Checks

- **Book quiz**
- **Retelling rubric**

Book Extension Activities

Build Skills

Grammar and Mechanics: **Commas in a series**

- Remind students that one specific way to use commas is with words in a series, or a list. Have students turn to page 4 and find the second sentence in the second paragraph. Ask students to circle the commas and count how many items are in this list of words.
- Explain to students that when a list includes three or more words, commas are used to separate the words. The commas help the reader understand that the items in the list are all separate items.
- **Check for understanding:** Have students turn to page 5 and find the second sentence. Have students circle the commas and identify the three items in the list.
- **Independent practice:** Introduce, explain, and have students complete the **commas-in-a-series worksheet**. If time allows, discuss their answers.

Word Work: **Root words**

- Explain to students that a root word is the smallest part of a word that can stand alone as a separate word. Often the root word can help the reader identify or infer the meaning of a longer word.
- Explain that prefixes and suffixes are syllables, or groups of letters, added to either the beginning or the end of a word to alter or change its meaning or verb tense.
- Have students turn to page 5 and find the word *information* in the last paragraph. Ask students to identify the root word (*inform*) and its meaning (*to supply knowledge or fact*). Discuss with students how adding the *-ation* suffix changed the meaning to *facts or knowledge*.
- **Check for understanding:** Write the words *cerebrum*, *cerebellum*, and *cerebral* on the board. Ask students to identify the part of the word that is common to all three words (*cereb-*). Ask students to infer what the word part *cereb-* might mean (*having to do with the brain*). Have students work with a partner to look up each word in the dictionary to identify its meaning and part of speech. Then, have students identify the prefix or suffix of each word.
- **Independent practice:** Introduce, explain, and have students complete the **root words worksheet**. If time allows, discuss their answers.

Connections

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