

## About the Book

Text Type: Nonfiction/Informational Page Count: 24 Word Count: 1,871

### Book Summary

Readers will learn that one drop of blood contains more than 5 million red blood cells, but they'll be amazed when they find out that if all the arteries, veins, and capillaries in the body were stretched end to end, they would reach across the United States 20,000 times! These and other facts about the circulatory system are included in the *Book of Blood*. Types of blood vessels, blood cells, and blood types are explained. Photographs, illustrations, and a diagram showing how blood is pumped through the heart help readers connect with the text.

## About the Lesson

### Targeted Reading Strategy

- Make connections to prior knowledge

### Objectives

- Make connections to prior knowledge to understand informational text
- Identify main idea and details of text
- Identify subject-verb agreement
- Understand content vocabulary

### Materials

Green text indicates resources available on the website

- Book—*Book of Blood* (copy for each student)
- Chalkboard or dry erase board
- Connect to prior knowledge, main idea and details, subject-verb agreement, content vocabulary 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](http://VocabularyA-Z.com).

- Content words:

Story critical: *bacteria* (n.), *circulation* (n.), *clot* (v.), *plasma* (n.), *pulse* (n.), *viruses* (n.)

Enrichment: *analogy* (n.), *antigen* (n.), *artery* (n.), *capillary* (n.), *circulatory system* (n.), *depleted* (v.), *oxygenated* (v.), *protein* (n.), *transfusion* (n.), *veins* (n.)

## Before Reading

### Build Background

- Have students tell what they know about the heart and the circulatory system.

### Preview the Book

Introduce the Reading Strategy: **Make connections to prior knowledge**

- Introduce, explain, and have students complete the [connect-to-prior-knowledge worksheet](#).

- Tell students that when they are able to make a connection with something they already know about the topic of the book before they begin to read, they will be better able to understand and remember what they read.
- Give students a copy of the book and have them preview the front and back covers and read the title. Have students discuss what they see on the covers and offer ideas as to what kind of book this is and what it might be about.
- Direct students to the table of contents. Explain that some of the section titles have been written in such a way to pique their interests. Have them find a section title that is interesting but does not provide a clear idea of what the section is about. Have students find a section title that does provide an idea of what they will read about in the section. After reviewing the table of contents, model making a connection with prior knowledge.  
*Think aloud: Some of the section titles are interesting, but I don't know what they are about. I'll have to read them to find out. I think I have a good idea of what might be in a couple of the sections, though. For example, the one titled "What Is Your Pulse?" is about a person's pulse. That's the heartbeat that you can feel in your wrist or your neck. I know that when I'm race walking, my pulse rate is much higher than when I am reading a book because my heart is working harder. (Tailor comments to fit personal experience.)*
- Have students share prior knowledge of any of the topics listed in the table of contents.
- Have students preview the rest of the book, including the title page, photographs and captions, diagram, and boxes titled "Blood Bonus." Show students the box on page 11 titled "Try This!" and explain that they can try this activity when they've finished reading. Point out the glossary and index and have students explain the purpose of each.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

### Introduce the Vocabulary

- Remind students of the strategies they can use to work out words they don't know. For example, they can use what they know about letter and sound correspondence to figure out the word. They can look for base words and prefixes and suffixes. They can use the context to work out meanings of unfamiliar words.
- Model how to apply word-attack strategies. Have students find the bold word *circulation* on page 5. Tell students to use what they know about syllables and vowels (one vowel sound per syllable) to sound out the word. Tell students that they can figure out the meaning of this word by thinking about its base word, *circle*, and the suffix *-ation*. Have students explain what the word *circle* means. Tell them that when the suffix is added it to the base word, the new word means *the act of moving in a circle*. Tell students that they can confirm the word's meaning by reading the sentence, which contains a definition context clue. Tell them that they can also use a dictionary to confirm the meaning if a context clue is unavailable.
- Remind students that they should check whether words make sense by rereading the sentence.
- Preview other vocabulary words such as *bacteria*, *clot*, and *pulse* before students begin reading.

### Set the Purpose

- Have students think about what they know about the heart, blood, and the circulatory system as they read the book.

## During Reading


### Student Reading

- **Guide the reading:** Have students read to the end of page 11. Ask them to underline any important information about the heart or circulatory system. Invite them to go back and reread the pages if they finish before everyone else.

- When they have finished reading, ask students to tell what they underlined. Reinforce unfamiliar vocabulary by using words such as *ventricle*, *atrium*, and *aorta* in the discussion. Model making connections using prior knowledge.

**Think-aloud:** *While I'm reading I think to myself, "Do I know anything about this?" If I do, I am able to make a connection that makes what I'm reading more meaningful. For example, when I read about types of blood vessels, I thought about when my brother had a heart attack. His doctors said it was because he had a clogged artery. They cleared out the artery and put a small, special tube in it so the blood could pass through easily. Making connections helps me understand and remember what I read. (Tailor comments to fit personal experience.)*

- Have students read the remainder of the book. Remind them to think about what they know about the circulatory system 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 strategies and context clues.

## Reflect on the Reading Strategy

- Have students complete the connect-to-prior-knowledge worksheet and compare what they knew before they read the book with what they know after reading it. Briefly discuss each item.
- Discuss how making connections with things in the text to prior knowledge keeps them actively involved in the reading process and helps them understand and remember what they have read.

## Teach the Comprehension Skill: Main idea and details

- Introduce and model:** Remind students that all books have a main idea, which is the main topic of the book. Point out that the title of the book often gives them an idea of the book topic. Ask students whether they can tell the main idea of this book from the title.
- Tell students that each section also has a main idea. Often, but not always, the section headings give a clue to the main idea. Sometimes the section starts out with a topic sentence that explicitly identifies the main idea. Other times the main idea must be inferred after reading the whole section. Use the table of contents to demonstrate how you would guess the main idea of each section.

**Think aloud:** *The title gives me the idea that the book is about our circulatory system. The first section head, "Special Delivery," doesn't really give me much information. But, since I have a pretty good idea of what the book is about, I can guess that the main idea of this section is going to tell me something about how this system works. I can guess from the second heading that the pumping station is probably talking about what pumps the blood through our bodies. Who has an idea of the main ideas for the rest of the sections?*

- Check for understanding:** Write your ideas for the first and second sections on the board. Then have students turn to the first section to confirm or revise the main idea. Work with them to help them determine the main idea and point out clues in the text that help them decide on the main idea. For example, the last sentence on page 5 suggests what the main idea of the section is.
- Remind students that each section is written with a main idea in mind, and the writer uses facts or details to support the main idea. Guide students to locate important details that support the main idea and record these on the board. Model how to differentiate between important and unimportant information. For example, the analogy to the post office is interesting but the real details of the section are that the heart is the center of the system, and blood travels through blood vessels. Write the details under the main idea on the board. Have students work with a partner to find the main idea and details of the next section and share their ideas with the group.

- **Discussion:** Read the second paragraph on page 6 with students. Explain that this paragraph is comparing voluntary and involuntary muscles. Tell students that muscles over which they have control are called voluntary muscles. Explain that muscles over which they have no control, like their hearts, are called involuntary muscles. Have students look at the diagram on page 7. Tell them to use their fingers to trace the flow of blood from the vena cava to where it is pumped out to the lungs. Have them explain what happens to the blood that goes into the vena cava and how it is different when it is pumped back into the heart. Have students look at the illustration on page 9. Have them compare how an artery and vein are alike and different. Have them identify one detail about each. Have students reread the box titled “Try This!” on page 11. Show students how to take a pulse and have them experiment with a partner. Have students tell one main idea and one detail about red cells and the three types of white cells. Ask students to explain how the intestines, kidneys, and liver affect the flow of blood in the body. Have students explain why blood is red, and provide one detail about hemoglobin. Have students identify the four blood types and explain the importance of matching blood when giving a transfusion.
- **Independent practice:** Introduce, explain, and have students complete the [main-idea-and-details worksheet](#). If time allows, discuss their responses.

## Build Skills

### Grammar and Mechanics: Subject-verb agreement

- Explain to students that good writers have learned the rules about how to make the subject and verb in a sentence work together.
- Write the following subject-verb pairs on the board: *boy/talks*, *plane/flies*, *bird/sings*. Discuss how each subject is singular.
- Edit each of the singular subjects on the board to make them plural: *boys*, *planes*, *birds*. Ask students to tell whether or not each new subject works with its verb (no). Have volunteers change each verb to make it work with each new subject. Discuss how the endings of the verbs must change to agree with each plural subject.
- Discuss how certain verbs, such as *is* and *has*, don’t follow this pattern. Write the following subject-verb pairs on the board: *she/is*, *he/has*. Point out that if *she* became two girls, then the subject-verb pair would change to *they/are* and if *he* became two boys, then the subject-verb pair would change to *they/have*.
- Write the following example on the board: *Blood flow through another valve*. Invite students to identify the subject (blood) and verb (flow) in the example.
- Discuss how, in this example, the subject is *blood*, which is singular. Based on this information, ask students to tell whether or not the verb, *flow*, agrees with the subject (no). Point out that the correct subject-verb agreement in this example would be *Blood flows through another valve*.
- **Check for understanding:** Write the following examples on the board and have students explain whether or not the subject-verb agreement is correct: *The vena cava deliver the blood to the upper chamber of the heart (incorrect)*. *Pulmonary veins take the blood to the left atrium of the heart (correct)*. *The blood in your body are confined to tubes called blood vessels (incorrect)*.
- **Independent practice:** Introduce, explain, and have students complete the [subject-verb- agreement worksheet](#). If time allows, discuss their answers.

### Word Work: Content vocabulary

- Tell students that many of the words in the book are used to tell about the blood, heart, and circulatory system. Provide opportunities for students to talk about difficult words such as *antigens*, *ventricles*, and *plasma*. Have pairs of students practice using the words in sentences as they explain the circulatory system to one another.
- **Independent practice:** Introduce, explain, and have students complete the [content vocabulary worksheet](#). If time allows, discuss their answers.

## Build Fluency

### Independent Reading

- Invite students to read their books independently or with a partner. Partners can take turns reading parts of the book.

### Home Connection

- Give students their books to take home to read with parents, caregivers, siblings, or friends.

## Extend the Reading

### Writing Connection

Have students use facts and details from the text to write and illustrate acrostic poems using the words *Healthy Heart*, *Book of Blood*, or words of their choosing. For example, an acrostic for *Heart* might be as follows:

Hardworking  
Exercise  
Aorta  
Red blood cell  
Type of blood

### Science Connection

Provide print and Internet resources for students to further research heart health, or invite a local cardiologist to talk to the group. Have them make *Heart Healthy* posters that suggest tips for having a healthy heart. Display the posters in the classroom, lunchroom, or library.

### 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:

- consistently use what they already know to make connections with what they read (before, during, and after reading) in discussion and on a worksheet
- correctly state the main idea of each section and determine the relevant supporting details from the irrelevant details in discussion and on a worksheet
- accurately recognize and apply subject-verb agreement in discussion and on a worksheet
- correctly recognize and use content vocabulary to describe how the circulatory system works in discussion and on a worksheet

### Comprehension Checks

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