



PREREADING ACTIVITIES



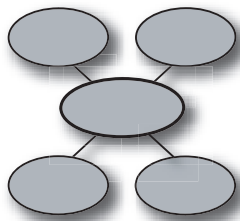
Before distributing **KIDS DISCOVER Blood**, activate students' prior knowledge and set a purpose for reading with these activities.

Discussion

To get students thinking about how this topic relates to their interests and lives, ask:

- ✓ Would you want to be a doctor or scientist who works with blood? Why or why not?
- ✓ What questions do you have about blood?

Concept map



Explain to students that they will be reading *Blood*. Ask: *What are some words that are related to blood?* List students' responses on the board. (See box below for some terms they may suggest.) After creating a list, ask

students to group the words into categories, such as **What's in Blood** or **Diseases**. Create a concept map by writing *Blood* on the board and circling it. Write the categories around the circle and draw lines between the ideas to show connections. Then write the words from the list around the appropriate categories. Encourage students to add more words to the concept map as they read *Blood*.

KEY TERMS

- | | |
|----------------------|--------------|
| ✓ circulatory system | ✓ antibodies |
| ✓ transfusion | ✓ vein |
| ✓ sickle cell anemia | ✓ clot |
| ✓ leukemia | ✓ plasma |
| ✓ hematology | ✓ bruise |
| ✓ platelets | ✓ blood type |

Get Set to Read (Anticipation Guide)



Copy and distribute the **Get Set to Read** blackline master (page 3 of this Teacher's Guide). Explain to students that this **Anticipation Guide** will help them find out what they know and what misconceptions they have about the topic. **Get Set to Read** is a list of statements—some true, some false. Ask students to write whether they think each statement is true or false in the **Before Reading** column. Be sure to tell students that it is not a test and they will not be graded on their answers. The activity can be completed in a variety of ways for differentiated instruction:

- ◆ **Have students** work on their own or in small groups to complete the entire page.
- ◆ **Assign pairs** of students to focus on two statements and to become "experts" on these topics.
- ◆ **Ask students** to complete the **Before Reading** column on their own, and then tabulate the class's answers on the chalkboard, on an overhead transparency, or on your classroom computer.
- ◆ **Review the statements** orally with the entire class.

If you predict that students will need assistance finding the answers, complete the **Page Number** column before copying **Get Set to Read**.

Preview

Distribute *Blood* and model how to preview it. Examine **titles, headings, words in boldface type, pictures, charts, and captions**. Then have students add new information to the **Concept Map**. If students will only be reading a few pages at one sitting, preview only the selected pages.

BE WORD WISE WITH POWER VOCABULARY!

You have exclusive access to additional resources including Power Vocabulary blackline masters for every available KIDS DISCOVER title! These activities introduce students to 15 specialized and general-use vocabulary words from each KIDS DISCOVER title. Working with both types of words helps students develop vocabulary, improve comprehension, and read fluently. Follow the links from your Teacher's Toolbox CD-ROM and find your title to access these valuable resources:

- ◆ Vocabulary cards
- ◆ Crossword puzzle
- ◆ Word find
- ◆ Matching
- ◆ Cloze sentences
- ◆ Dictionary list

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Name _____ Date _____

Get Set to Read

Your blood circulates throughout your body. What do you know about this life-giving substance? In *Before Reading*, write *true* if you think the statement is true. Write *false* if you think the statement is not true. Then read *KIDS DISCOVER Blood*. Check back to find out if you were correct. Write the correct answer and the page number where you found it.

CHALLENGE: Rewrite each false sentence in a way that makes it true.

Before Reading		After Reading	Page Number
_____	1. Blood is made up entirely of red blood cells.	_____	_____
_____	2. Blood vessels branch into smaller tubes to reach every part of the body.	_____	_____
_____	3. Imhotep, an ancient Egyptian, concluded that the heart makes blood move through the body.	_____	_____
_____	4. A person with type AB blood can receive only AB blood in transfusions.	_____	_____
_____	5. Only blood can flow through the bloodstream.	_____	_____
_____	6. Platelets begin the process of healing cuts.	_____	_____
_____	7. Most killer viruses travel through the air.	_____	_____
_____	8. All animals have red blood.	_____	_____



DISCUSSION & WRITING QUESTIONS



Use the following questions as oral discussion starters or for journaling. For additional in-class discussion and writing questions, adapt the questions on the reading comprehension blackline masters on pages 5 and 6.

All pages

- ✓ Why do you think people decide to become doctors?
- ✓ What do you think would be the best part of being a doctor? The worst part?
- ✓ What character traits do you think a doctor should have? Explain.

Pages 2–3

A speck of blood is made up of several different types of cells and substances. Ask:

- ✓ Are you surprised to learn that blood is made up of several different substances? Why or why not?

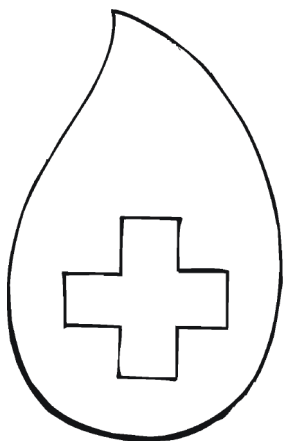
Pages 4–5

On page 5, the circulatory system is compared to Venice. Ask:

- ✓ Why do you think the author compared the circulatory system to Venice?
- ✓ Did this comparison help you visualize and remember information about the circulatory system? Why or why not?

Pages 6–7

- ✓ Are the questions asked and answered on pages 6–7 questions that you had about blood?
- ✓ What other questions do you have about blood? Where can you find answers to these questions?



Pages 8–9

- ✓ Why do you think some people donate blood?
- ✓ Why do you think some people prefer not to donate blood?
- ✓ When you are older, do you think you will want to donate blood? Why or why not?

Pages 12–13

- ✓ Have you ever had a cut that took a long time to heal? What happened?
- ✓ Have you ever had to get stitches to close up a wound? What happened?

Pages 14–15

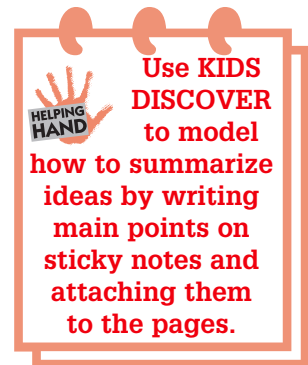
Although there may be hemorrhagic fever virus in various places in the world, those places are not unsafe to visit. Have students imagine that they can visit one of the places featured on pages 14 and 15: southwestern U.S.; Venezuela; East Africa; Bolivia; Argentina; Democratic Republic of the Congo; China; the Middle East; the former Soviet Union; Nigeria; Guinea; Liberia; Sierra Leone; Egypt; or Scandinavia. Ask:

- ✓ Which place would you most like to visit? Why did you choose that place?
- ✓ Have you ever been to any of the other places? If so, how was life there similar and different to life in the United States?

Pages 16–17

Have students look at the insects and animals shown on pages 16 and 17. Ask:

- ✓ Have you ever had an encounter with any of these creatures? What was it and how did it affect you?





Name _____ Date _____

It's in the Reading

After reading **KIDS DISCOVER *Blood***, choose the best answer for each question.
Fill in the circle.



Find your answers on the pages shown in the book icon next to each question.

1. Your blood makes antibodies to ____.

- A. carry oxygen
- B. fight diseases
- C. feed white blood cells
- D. keep you warm



2. Unlike the arteries, the veins ____.

- A. are oxygen rich
- B. carry white blood cells
- C. reach every organ of the body
- D. have little oxygen



3. An idiom is a phrase that has a meaning different from that of its words.

The saying ____ is an idiom.

- A. "Your circulatory system is a lot like Venice."
- B. "That person has blood on his or her hands."
- C. "If blood freezes frostbite occurs."
- D. "Delivery boats act like red blood cells."



4. Your spleen is like your bone marrow in that they both make ____.

- A. red blood cells
- B. plasma
- C. white blood cells
- D. platelets



5. A person cannot donate blood if he or she ____.

- A. has eaten an hour before donation time
- B. is healthy
- C. is 21 years old
- D. weighs 98 pounds



6. Leviticus 17:11 is referred to on page 12 because it is the ____.

- A. the source of the quotation
- B. the source of the picture
- C. an explanation of the quotation
- D. a primary source document



7. The term *germs* refers to ____.

- A. poisons
- B. chemicals
- C. unclean surfaces
- D. bacteria and viruses



8. Many hemorrhagic fever viruses discussed in the magazine are named after ____.

- A. scientists
- B. the carrier of the disease
- C. geographic locations
- D. Spanish words



9. Viruses can multiply ____.

- A. only in the body of an animal
- B. on unclean surfaces
- C. in the air
- D. anywhere



10. Flees and leeches are alike in that both ____.

- A. are insects
- B. feed on blood
- C. live in salt water
- D. have blue blood



11. Why is the blood referred to as a life-and-death issue?



Name _____ Date _____

Everything Visual

Are you looking for a quick and easy way to read data? Look for graphs. Graphs organize data in a visual way. You might find data given in line graphs, bar graphs, pictographs, and circle graphs. Look at the graphs on page 9. Then answer the questions.

1. According to the pictograph and its caption, what percent of people have the blood antigen D?

2. What do the blue people in the pictograph represent?

3. If the pictograph showed Asian populations only, how would it differ?

4. What is the topic of the circle graph?

5. What type of blood do most people have?

6. What is the rarest type of blood?

7. Does the pictograph or the circle graph rely more on its caption? Explain.



Name **ANSWER KEY** _____ Date _____

Get Set to Read

Your blood circulates throughout your body. What do you know about this life-giving substance? In *Before Reading*, write *true* if you think the statement is true. Write *false* if you think the statement is not true. Then read *KIDS DISCOVER Blood*. Check back to find out if you were correct. Write the correct answer and the page number where you found it.

CHALLENGE: Rewrite each false sentence in a way that makes it true.

Before Reading	After Reading	Page Number
_____ 1. Blood is made up entirely of red blood cells of red blood cells, white blood cells, plasma, and platelets.	_____ <i>False</i>	_____ <i>p. 2</i>
_____ 2. Blood vessels branch into smaller tubes to reach every part of the body.	_____ <i>True</i>	_____ <i>p. 5</i>
_____ 3. Imhotep, an ancient Egyptian, concluded that the heart makes blood move through the body.	_____ <i>True</i>	_____ <i>p. 6</i>
_____ 4. A person with type AB blood can receive only AB blood any type of blood in transfusions.	_____ <i>False</i>	_____ <i>p. 9</i>
_____ 5. Only blood Blood, poisons, and germs can flow through the bloodstream.	_____ <i>False</i>	_____ <i>p. 12</i>
_____ 6. Platelets begin the process of healing cuts.	_____ <i>True</i>	_____ <i>p. 13</i>
_____ 7. Most killer viruses travel through the air spread through direct contact.	_____ <i>False</i>	_____ <i>pp. 14-15</i>
_____ 8. All animals have red blood. Some animals have blood that is different in color.	_____ <i>False</i>	_____ <i>p. 17</i>



Name **ANSWER KEY** _____ Date _____

It's in the Reading

After reading **KIDS DISCOVER *Blood***, choose the best answer for each question.
Fill in the circle.



Find your answers on the pages shown in the book icon next to each question.

1. Your blood makes antibodies to ____.

- A. carry oxygen
- B. fight diseases (*main idea and details*)
- C. feed white blood cells
- D. keep you warm



2. Unlike the arteries, the veins ____.

- A. are oxygen rich
- B. carry white blood cells
- C. reach every organ of the body
- D. have little oxygen (*comparison and contrast*)



3. An idiom is a phrase that has a meaning different from that of its words.

The saying ____ is an idiom.

- A. "Your circulatory system is a lot like Venice."
- B. "That person has blood on his or her hands." (*figurative language*)
- C. "If blood freezes frostbite occurs."
- D. "Delivery boats act like red blood cells."



4. Your spleen is like your bone marrow in that they both make ____.

- A. red blood cells
- B. plasma
- C. white blood cells (*comparison and contrast*)
- D. platelets



5. A person cannot donate blood if he or she ____.

- A. has eaten an hour before donation time
- B. is healthy
- C. is 21 years old
- D. weighs 98 pounds (*synthesis*)



6. Leviticus 17:11 is referred to on page 12 because it is the ____.

- A. the source of the quotation (*writing convention*)
- B. the source of the picture
- C. an explanation of the quotation
- D. a primary source document



7. The term *germs* refers to ____.

- A. poisons
- B. chemicals
- C. unclean surfaces
- D. bacteria and viruses (*context definition*)



8. Many hemorrhagic fever viruses discussed in the magazine are named after ____.

- A. scientists
- B. the carrier of the disease
- C. geographic locations (*generalization*)
- D. Spanish words



9. Viruses can multiply ____.

- A. only in the body of an animal (*main idea and details*)
- B. on unclean surfaces
- C. in the air
- D. anywhere



10. Fleas and leeches are alike in that both ____.

- A. are insects
- B. feed on blood (*comparison and contrast*)
- C. live in salt water
- D. have blue blood



11. Why is the blood referred to as a life-and-death issue?

Students should point out that the blood provides oxygen and nutrients to all organs, giving them what they need to continue operating, but it also can carry germs and poisons that can kill an organism.



Name **ANSWER KEY** _____ Date _____

Everything Visual

Are you looking for a quick and easy way to read data? Look for graphs. Graphs organize data in a visual way. You might find data given in line graphs, bar graphs, pictographs, and circle graphs. Look at the graphs on page 9. Then answer the questions.

1. According to the pictograph and its caption, what percent of people have the blood antigen D?

According to the pictograph, 85 percent of all people have the D antigen.

2. What do the blue people in the pictograph represent?

They represent people who do not have the D antigen.

3. If the pictograph showed Asian populations only, how would it differ?

For Asian populations the pictograph would have 99 red figures and 1 blue figure.

4. What is the topic of the circle graph?

"Blood types in the world population" is the topic of the circle graph.

5. What type of blood do most people have?

Most people have type O blood.

6. What is the rarest type of blood?

Type AB is the rarest type of blood.

7. Does the pictograph or the circle graph rely more on its caption? Explain.

The pictograph relies more on its caption because you must read the caption to determine what the figures represent.