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Pathfinder's Name

## Blood and the Body's Defenses

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- 1. Have the Microscopic Life Honor.
- 2. Name the two major constituents of blood. What is the percentage of each in normal blood.

Constituents

Percentage

1. \_\_\_\_\_
2. \_\_\_\_\_

- 3. Be able to draw pictures of and name the 7 types of blood cells and indicate what each type does.

1. \_\_\_\_\_
5. \_\_\_\_\_

2. \_\_\_\_\_
6. \_\_\_\_\_

3. \_\_\_\_\_
7. \_\_\_\_\_

4. \_\_\_\_\_

- ❑ 4. Observe some preserved human blood under a microscope. Count 100 white blood cells and draw a graph showing the number of each of the five types of white blood cells that you found.

Blood Cells

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_

Graph

Which type is most common?

\_\_\_\_\_

Which is least common?

\_\_\_\_\_

- ❑ 5. Do at least one of the following and report on what you observed:
  - a. Observe blood being drawn from someone's arm by a medical professional.
  - b. With the help of an experienced person, observe blood flowing through some capillaries (either on video tape or in a living organism (such as hamster cheek-pouch, frog skin, or goldfish tail) using a microscope.
  - c. Visit a medical laboratory where blood tests are performed.
  - d. Visit a blood bank.
- ❑ 6. What two gases are transported by the red blood cells?
  - 1. \_\_\_\_\_
  - 2. \_\_\_\_\_

Explain why blood appears blue/green in your veins but if you cut yourself, the blood that comes out is bright red.

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Explain why a lack of iron in your diet might make you have yellowish-colored blood.

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7. Explain how blood clots when you are injured.

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How does typical "First Aid" help in this process?

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8. What does it mean to be a blood donor?

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If possible, know your own blood type. \_\_\_\_\_

What types of blood can be donated to you?

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Which blood types cannot be donated to you?

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Why?

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9. Tell two stories in the Bible in which blood is involved.

Stories: 1. \_\_\_\_\_  
2. \_\_\_\_\_

From what you know about blood, why do you think that the Bible uses blood as a symbol of God's saving power?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. List 10 specific health habits that can help your body stay healthy and fight off infection. Find a reference from the Spirit of Prophecy that supports each one of these.

Habits

References

Habits	References
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

11. Define the following terms relating to the body's defenses:

immunology \_\_\_\_\_

pathogen inflammation \_\_\_\_\_

antibody \_\_\_\_\_

\_\_\_\_\_

memory cells \_\_\_\_\_  
\_\_\_\_\_

immunity \_\_\_\_\_  
\_\_\_\_\_

vaccine \_\_\_\_\_  
\_\_\_\_\_

allergy \_\_\_\_\_  
\_\_\_\_\_

histamine \_\_\_\_\_  
\_\_\_\_\_

antihistamine \_\_\_\_\_  
\_\_\_\_\_

- ❑ 12. Poison Ivy and poison Oak are plants commonly encountered by active Pathfinders.

Identify Poison Ivy and Poison Oak

Poison Ivy \_\_\_\_\_  
\_\_\_\_\_

Poison Oak \_\_\_\_\_  
\_\_\_\_\_

How to avoid an allergic reaction \_\_\_\_\_  
\_\_\_\_\_

Explain what to do if you get an allergic reaction to either.

\_\_\_\_\_  
\_\_\_\_\_

- ❑ 13. Make a list of as many as possible of the infectious diseases that you have had.

Diseases \_\_\_\_\_  
\_\_\_\_\_

Which ones are you now immune to? Explain why or why not.

Disease

Why or why not?

_____	_____
_____	_____
_____	_____

14. From your personal medical records, list all the vaccines that you have had and determine from your doctor when your next vaccination should be.

Vaccines

_____	_____
_____	_____
_____	_____

Next one: \_\_\_\_\_

15. Write or tell about one infectious disease (at least 250 words).

16. What is AIDS?

\_\_\_\_\_

\_\_\_\_\_

How is it spread?

\_\_\_\_\_

\_\_\_\_\_

Is there a cure?

\_\_\_\_\_

\_\_\_\_\_

Why is it so devastating?

\_\_\_\_\_

\_\_\_\_\_

17. Find three biblical references that have to do with cleanliness and the control of or spread of disease.

1. \_\_\_\_\_ 3. \_\_\_\_\_

2. \_\_\_\_\_