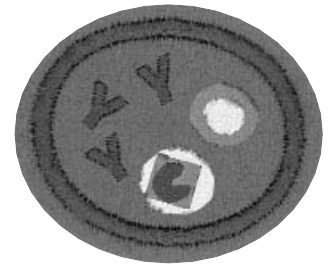


## Blood and the Body's Defenses

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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.
3. Be able to draw pictures of and name the 7 types of blood cells and indicate what each type does.
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. 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? Explain why blood appears blue/green in your veins but if you cut yourself, the blood that comes out is bright red. Explain why a lack of iron in your diet might make you have yellowish-colored blood.
7. Explain how blood clots when you are injured. How does typical "First Aid" help in this process?
8. What does it mean to be a blood donor? If possible, know your own blood type. What types of blood can be donated to you? Which blood types cannot be donated to you? Why?
9. Tell two stories in the Bible in which blood is involved. 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. Keep a record for three weeks of how often you repeat these 10 habits.
11. Define the following terms relating to the body's defenses: immunology, pathogen inflammation, antibody, memory cells, immunity, vaccine, allergy, histamine, and antihistamine.
12. Poison Ivy and poison Oak are plants commonly encountered by active Pathfinders. Be able to identify Poison Ivy and Poison Oak and know how to avoid having allergic reactions to them, and 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. Which ones are you now immune to? Explain 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.

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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.

## **Skill Level 2**

**Original Honor 2000**