



[KidsHealth.org/classroom](http://KidsHealth.org/classroom)

## Teacher's Guide

This guide includes:

- Standards
- Related Links
- Discussion Questions
- Activities for Students
- Reproducible Materials

## Standards

This guide correlates with the following National Health Education Standards:

Students will:

- Comprehend concepts related to health promotion and disease prevention to enhance health.
- Demonstrate the ability to access valid information and products and services to enhance health.
- Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Demonstrate the ability to use decision-making skills to enhance health.
- Demonstrate the ability to use goal-setting skills to enhance health.
- Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

National Health Education Standards:  
<http://www.cdc.gov/healthyschools/sher/standards/index.htm>

Let's hear it for leukocytes! These germ-fighting white blood cells are an important part of the immune system, along with the other cells, tissues, and organs in the human body that work together to help you fight illnesses. These activities will help your students learn how the body protects itself from disease.

## Related KidsHealth Links

### Articles for Kids:

#### Your Immune System

[KidsHealth.org/en/kids/immune.html](http://KidsHealth.org/en/kids/immune.html)

#### Movie: The Immune System

[KidsHealth.org/en/kids/ismovie.html](http://KidsHealth.org/en/kids/ismovie.html)

#### Word Find: Immune System

[KidsHealth.org/en/kids/bfs-iswordsearch.html](http://KidsHealth.org/en/kids/bfs-iswordsearch.html)

#### Activity: Immune System

[KidsHealth.org/en/kids/bfs-isactivity.html](http://KidsHealth.org/en/kids/bfs-isactivity.html)

#### Quiz: Immune System

[KidsHealth.org/en/kids/isquiz.html](http://KidsHealth.org/en/kids/isquiz.html)

#### What Are Germs?

[KidsHealth.org/en/kids/germs.html](http://KidsHealth.org/en/kids/germs.html)

#### Why Do I Need to Wash My Hands?

[KidsHealth.org/en/kids/wash-hands.html](http://KidsHealth.org/en/kids/wash-hands.html)

#### The 5-Second Rule

[KidsHealth.org/en/kids/5-seconds.html](http://KidsHealth.org/en/kids/5-seconds.html)

### Article for Teachers:

#### Tips From School Nurses on Keeping Students Healthy

[KidsHealth.org/en/parents/healthy-nurse-tips.html](http://KidsHealth.org/en/parents/healthy-nurse-tips.html)

## Discussion Questions

*Note: The following questions are written in language appropriate for sharing with your students.*

1. What does the immune system do? Why is this job so important?
2. What parts of the body make up the immune system?
3. What are germs? How can germs spread from person to person? What you can do to avoid getting sick from germs?
4. What can you do to help your immune system keep you healthy?



## Activities for Students

*Note: The following activities are written in language appropriate for sharing with your students.*

### Germ Headquarters

#### Objective:

Students will:

- Learn about the parts of the immune system and how they function

#### Materials:

- Computer with Internet access
- Word processing program, or pencil or pen and paper

#### Class Time:

1 hour

#### Activity:

Shhh. OK, the coast is clear. **Attack!** You and some of your closest germ friends have just invaded a person's body. You're on your way to causing an infection, but you run into a roadblock: The person's immune system is fighting back! Your mission may fail! You need to call Germ Headquarters and inform them of the situation. After reading about germs and the immune system at KidsHealth.org, write a dialogue back and forth between the you and Germ Headquarters describing the battle. In the dialogue, start with how you get into the person's body, and how the body fights back. Describe a mission in which you and your germs friends succeed and cause an illness, and explain what happens to the person's body.

#### Extension:

Sometimes kids can have problems with their immune systems that aren't related to germs. Select an immune system problem like allergies, lupus, celiac disease, or juvenile rheumatoid arthritis. Do research at KidsHealth.org to learn more about the problem, and write down some facts explaining symptoms and treatment.



## Help Wanted: Leukocytes

### Objective:

Students will:

- Learn about the role of white blood cells in the immune system

### Materials:

- Computer with Internet access
- Help wanted advertisements from a newspaper or online
- "Help Wanted: Leukocytes" handout

### Class Time:

1 hour

### Activity:

"Sniffle." "Cough." Sounds like you're coming down with something. Well, your leukocytes - germ-fighting white blood cells - can help make you get better. But there's have a problem: You seem to be short on white blood cells! You'd better post a help wanted ad to get some more leukocytes fast! Take a look at some ads from a newspaper or the Internet to get some ideas about how to write a help wanted ad. Then go to [KidsHealth.org](http://KidsHealth.org) to learn about white blood cells. Now you're ready to write a help wanted ad of your own. Include the following information:

- Job description (what white blood cells have to do on the job)
- Qualifications (skills that white blood cells need to have)
- Benefits (what white blood cells will get for doing a good job)

Good luck hiring some qualified white blood cells!

## Reproducible Materials

### Handout: Help Wanted: Leukocytes

[KidsHealth.org/classroom/3to5/body/systems/immune\\_handout1.pdf](http://KidsHealth.org/classroom/3to5/body/systems/immune_handout1.pdf)

### Quiz

[KidsHealth.org/classroom/3to5/body/systems/immune\\_quiz.pdf](http://KidsHealth.org/classroom/3to5/body/systems/immune_quiz.pdf)

### Quiz: Answer Key

[KidsHealth.org/classroom/3to5/body/systems/immune\\_quiz\\_answers.pdf](http://KidsHealth.org/classroom/3to5/body/systems/immune_quiz_answers.pdf)



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Help Wanted: Leukocytes

Instructions: Write a help wanted ad on the blank lines or the other side of this paper so you can hire some more leukocytes to help keep you healthy. Take a look at some ads from a newspaper or the Internet to get ideas about how to write a help wanted ad. Then go to KidsHealth.org to learn about white blood cells. Include the following information:

- Job description (what white blood cells have to do on the job)
- Qualifications (skills that white blood cells need to have)
- Benefits (what white blood cells will get for doing a good job)

# Help Wanted

**TOP JOB**  
**Insurance**  
**Home Surveyor**  
P/T or F/T Flexible  
Schedule! Work  
from your home.  
No experience is  
necessary. Will train.  
[www.surveyor.com](http://www.surveyor.com)

candidates should  
fax resume to 512-  
232-5666.

**Legal Assistants**  
Large firm seeks  
top legal assistant  
with litigation  
experience to  
work for managing  
partner. 3 to 5  
years experience  
required. Please  
contact Joe Smith  
to apply. Phone:  
112-231-1121

**Senior Management**  
Looking for customer  
service oriented individual  
with strong, proven upper  
management/leadership  
experience to oversee  
day-to-day operations.  
Responsible for design of  
workflows, validation of  
policies and procedures,  
productivity, financial budgets,  
in a very fast-paced dynamic  
environment. Company offers  
a competitive salary, benefits  
package and excellent work  
environment. Send resumes to  
[jobs@maintenancerus.com](mailto:jobs@maintenancerus.com)

**Leasing**  
**Consultant**  
For large apartment  
community.  
Applicant must  
have 5+ years  
apartment rental  
experience and  
strong sales closing  
skills. Great benefits  
and 401K. Please fax  
resume and salary  
requirements to  
321-456-9876.

**TOP JOB**  
**Maintenance**  
**Engineer**

Hi-rise office  
building requires  
minimum 5 yrs  
experience with  
a Class A license,  
and absorption  
chillers and steam  
related equipment.  
Must have knowledge  
of plumbing and  
electrical to apply.  
Fax resume to:  
211-511-5555.  
[www.hiriseon4th.com](http://www.hiriseon4th.com)

**PRODUCT**  
**MANAGER**

A leading supplier of bath  
and shower products seeks  
an experienced professional  
to act as Product Manager.  
The person we seek must be  
a strong communicator who  
will develop and manage our  
entire bath line. Must have a  
degree and a minimum of 3  
years Marketing experience.  
Strong organization and  
project management skills  
required. Forward resume  
and salary requirements to  
[jdownsing@showerclean.com](mailto:jdownsing@showerclean.com)  
Fax: 557-222-1212

**LANDSCAPERS**  
Company seeking  
three experienced  
landscapers with  
familiarity of native  
and non-native trees,  
shrubs and perennials,  
ornamental grasses,  
and annuals. Qualified



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Quiz

Instructions: Answer each question.

1. What is the job of the immune system?

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2. What are leukocytes?

- a. red blood cells
- b. white blood cells
- c. platelets
- d. plasma

3. What do phagocytes do?

- a. chew up invading germs
- b. allow the body to remember previous invaders
- c. carry oxygen throughout the body
- d. help you stop bleeding if you get a cut

4. List two places where leukocytes can be found:

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5. What is another name for the glands in your neck?

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6. What do lymph nodes do?

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7. Name three places where you have lymph nodes:

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8. \_\_\_\_\_ are doctors who specialize in immune system problems.

9. Name two ways you can help your immune system protect you:

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10. True or false: When your lymph nodes are swollen, your immune system is at work. T F



## Quiz Answer Key

1. What is the job of the immune system?  
The job of the immune system is to protect the body from disease. The parts of the immune system work together to fight of outside invaders like germs.
2. What are leukocytes?
  - a. red blood cells
  - b. white blood cells
  - c. platelets
  - d. plasma
3. What do phagocytes do?
  - a. chew up invading germs
  - b. allow the body to remember previous invaders
  - c. carry oxygen throughout the body
  - d. help you stop bleeding if you get a cut
4. List two places where leukocytes can be found:  
spleen and bone marrow
5. What is another name for the glands in your neck?  
lymph nodes
6. What do lymph nodes do?  
Lymph nodes work like filters to remove germs that could hurt you
7. Name three places where you have lymph nodes:  
in your neck, in your armpit, and in your groin area
8. Immunologists are doctors who specialize in immune system problems.
9. Name two ways you can help your immune system protect you:  
any two of the following: washing your hands regularly, eating nutritious foods, getting plenty of exercise, and getting regular medical checkups
10. True or false: When your lymph nodes are swollen, your immune system is at work.  T  F