



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.
- Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- 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.
- Demonstrate the ability to advocate for personal, family, and community health.

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

Students are continually exposed to germs, from doorknobs, railings, you name it. But fortunately, our immune systems are on duty to battle germs that could make us ill. These activities will help your students learn about how the immune system protects them from germs and illness.

Related KidsHealth Links

Articles for Kids:

Your Immune System

KidsHealth.org/en/kids/immune.html

Movie: The Immune System

KidsHealth.org/en/kids/ismovie.html

Activity: Immune System

KidsHealth.org/en/kids/bfs-isactivity.html

What Are Germs?

KidsHealth.org/en/kids/germs.html

Why Do I Need to Wash My Hands?

KidsHealth.org/en/kids/wash-hands.html

Articles for Teens:

Immune System

TeensHealth.org/en/teens/immune.html

Why Should I Care About Germs?

TeensHealth.org/en/teens/care-about-germs.html

Hand Washing

TeensHealth.org/en/teens/handwashing.html

Article for Teachers:

Tips From School Nurses on Keeping Students Healthy

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. How does the immune system protect our bodies from germs? What are leukocytes and why are they so important?
2. How do people develop immunity to germs and diseases?
3. What can you do to help your immune system keep you healthy? How do these things keep away illnesses?
4. How do immunizations (shots) help your immune system?



Activities for Students

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

Immune System Vocabulary

Objectives:

Students will:

- Learn words related to the immune system and their definitions

Materials:

- Computer with Internet access
- “Immune System Vocabulary” handout and “Immune System” quiz and answer key

Class Time:

- 1 hour

Activity:

Phagocyte, lymphocyte, immunity – what do these words mean? Read about the immune system at KidsHealth.org to find out how your body fights off sickness. After reading the articles, complete the word search puzzle, and then I’ll pass out a quiz so you can show what you know about your body’s defense system for attacking germs and diseases.

Extensions:

1. The best way to help keep your immune system do its job is to (1) wash your hands regularly to avoid infections. (2) Eating nutritious foods, (3) getting plenty of exercise, (4) getting adequate sleep, and (5) visiting a doctor regularly help, too. Create a poster to hang on school walls, or an infographic, podcast or video to share on social media, to remind students about these five ways to help out their immune systems.
2. Create a chart for one week to track what you do to help your immune system. Include data on:
 - hand washing (especially before preparing food and eating and after using the bathroom)
 - eating nutritious foods
 - being active, exercising, or playing sports
 - getting enough sleep



Immunity Highway

Objectives:

Students will:

- Identify how the immune system protects the body from germs and diseases
- Learn the components and steps of the immune response

Materials:

- Computer with Internet access
- Overhead projector or smartboard
- “Immunity Highway” handouts

Class Time:

- 1 hour

Activity:

We’re going to take a road trip on the Immunity Highway and learn how the immune system protects our bodies from germs. Read the article, “Immune System,” then we’ll fill in the parts on the Immunity Highway handout that describe the steps the immune response system takes to defend your body. We’ll use the words in the word bank at the bottom of the page to help us fill in the parts of our trip.

Reproducible Materials

Handout: Immune System Vocabulary

KidsHealth.org/classroom/6to8/body/systems/immune_handout1.pdf

Handout for Teachers: Immune System Vocabulary Answers

KidsHealth.org/classroom/6to8/body/systems/immune_handout2.pdf

Handout: Immunity Highway

KidsHealth.org/classroom/6to8/body/systems/immune_handout3.pdf

Handout for Teachers: Immunity Highway Answers

KidsHealth.org/classroom/6to8/body/systems/immune_handout4.pdf

Quiz: Immune System

KidsHealth.org/classroom/6to8/body/systems/immune_quiz.pdf

Answer Key: Immune System

KidsHealth.org/classroom/6to8/body/systems/immune_quiz_answers.pdf



Name: _____

Date: _____

Immune System Vocabulary

Instructions: Circle the immune system vocabulary words from the word bank. They could be arranged vertically, horizontally, and backward.

G	J	A	K	N	V	E	S	S	E	L	S	G	J
Z	R	N	Z	S	A	N	N	W	N	C	D	N	K
K	K	T	H	N	E	V	C	S	Q	O	E	I	L
P	B	I	X	E	J	T	W	H	S	E	F	H	Y
Y	T	G	O	E	T	A	N	N	I	S	H	S	M
A	K	E	S	E	I	D	O	B	I	T	N	A	P
T	Z	N	G	C	O	G	V	L	N	K	A	W	H
L	Y	M	P	H	O	C	Y	T	E	S	B	D	N
L	J	M	X	E	I	M	M	U	N	E	H	N	O
X	O	S	J	O	G	G	Z	W	U	X	H	A	D
B	B	R	T	F	J	F	F	J	D	Y	P	H	E
Z	Y	P	H	A	G	O	C	Y	T	E	F	Y	S
R	K	I	W	A	A	F	O	S	E	S	A	S	L
P	F	L	E	U	K	O	C	Y	T	E	S	Y	Z

WORD BANK

ANTIBODIES

HAND WASHING

INNATE

LYMPH NODES

PHAGOCYTE

ANTIGEN

IMMUNE

LEUKOCYTES

LYMPHOCYTES

VESSELS



Immune System Vocabulary Answers

G	J	A	K	N	V	E	S	S	E	L	S	G	J
Z	R	N	Z	S	A	N	N	W	N	C	D	N	K
K	K	T	H	N	E	V	C	S	Q	O	E	I	L
P	B	I	X	E	J	T	W	H	S	E	F	H	Y
Y	T	G	O	E	T	A	N	N	I	S	H	S	M
A	K	E	S	E	I	D	O	B	I	T	N	A	P
T	Z	N	G	C	O	G	V	L	N	K	A	W	H
L	Y	M	P	H	O	C	Y	T	E	S	B	D	N
L	J	M	X	E	I	M	M	U	N	E	H	N	O
X	O	S	J	O	G	G	Z	W	U	X	H	A	D
B	B	R	T	F	J	F	F	J	D	Y	P	H	E
Z	Y	P	H	A	G	O	C	Y	T	E	F	Y	S
R	K	I	W	A	A	F	O	S	E	S	A	S	L
P	F	L	E	U	K	O	C	Y	T	E	S	Y	Z

WORD BANK

ANTIBODIES

HAND WASHING

INNATE

LYMPH NODES

PHAGOCYTE

ANTIGEN

IMMUNE

LEUKOCYTES

LYMPHOCYTES

VESSELS



Name: _____

Date: _____

Immunity Highway

Instructions: Fill in the parentheses on the map below to label how the immune system works. Refer to the article “Immune System” and the word bank below to help you.

Rest Stop
(_____)

Rest Stop
(_____)

Rest Stop
(_____)

(_____) Found Here

(_____) Made Here

(_____) Produced Here

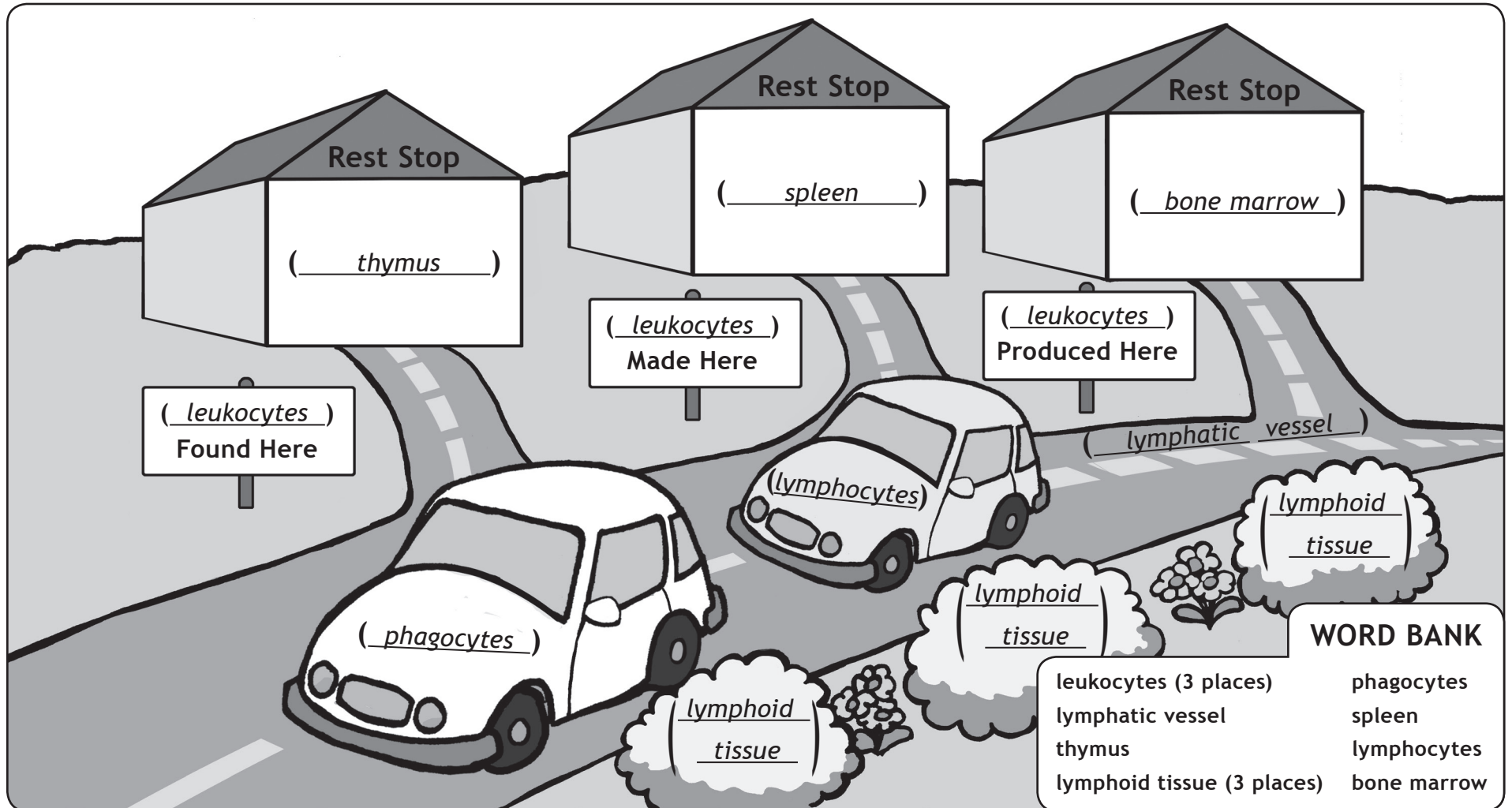
(_____) (_____) (_____)

WORD BANK

leukocytes (3 places)	phagocytes
lymphatic vessel	spleen
thymus	lymphocytes
lymphoid tissue (3 places)	bone marrow



Immunity Highway Answers





Name: _____

Date: _____

Quiz

Instructions: Show what you know about the immune system by filling in the blanks with the vocabulary words from the word bank.

1. The _____ system protects your body from sickness and germs.
2. _____ are white blood cells that seek out and destroy organisms or substances that can cause disease.
3. _____ are glands that work like filters to remove germs. They're found in your neck, armpits, and other areas.
4. Cells that chew up invading germs are called _____.
5. _____ are the cells that recognize invaders like germs.
6. Leukocytes travel through the body through lymphatic _____.
7. A foreign substance that invades your body is called an _____.
8. When your body detects an antigen, _____ are made and lock onto it. Once an antigen is recognized, your immune system can remember it the next time and protect you from getting sick again.
9. Humans are born with _____ immunity.
10. _____ is one of the best ways to avoid infections and help keep your immune system healthy.

WORD BANK

antibodies

hand washing

innate

lymph nodes

phagocytes

antigen

immune

leukocytes

lymphocytes

vessels



Quiz Answer Key

1. The immune system protects your body from sickness and germs.
2. Leukocytes are white blood cells that seek out and destroy organisms or substances that can cause disease.
3. Lymph nodes are glands that work like filters to remove germs. They're found in your neck, armpits, and other areas.
4. Cells that chew up invading germs are called phagocytes.
5. Lymphocytes are the cells that recognize invaders like germs.
6. Leukocytes travel through the body through lymphatic vessels.
7. A foreign substance that invades your body is called an antigen.
8. When your body detects an antigen, antibodies are made and lock onto it. Once an antigen is recognized, your immune system can remember it the next time and protect you from getting sick again.
9. Humans are born with innate immunity.
10. Hand washing is one of the best ways to avoid infections and help keep your immune system healthy.

WORD BANK

antibodies

hand washing

innate

lymph nodes

phagocytes

antigen

immune

leukocytes

lymphocytes

vessels