

Smarty Pants Magazine for Kids

Your Amazing Body:

The Immune System-Defense Against Germs

Teacher/Parent Page

The Reading for Elementary Readers

The Reading for Early Readers or 'Read-a-Loud'

*Refer back to the Reading and Glossary to complete Quiz/Worksheet Activities.
Answers to tests are at the bottom of the Quiz/Worksheet Activity

Health Objectives:

- .What are germs?
- How germs cause sickness
- Importance of Hygiene for Health

Applications

1. Language Comprehension - Early Readers or 'Read-a-Loud' (Copy as needed)

1-a Health Poster Coloring Page for all ages

1-b True/False Card Game

Glossary (Copy as needed)

2. Language Comprehension - Elementary (Copy as needed)

2-a Worksheet Quiz (with answers) Word Recognition/Word Bank

2-b Worksheet. True/False Quiz (with answers)

3. Math (Copy as needed)

3-a Germs on Hands Graphic Worksheet

4. Anatomy (placement of body parts) (Copy as needed)

4-a Graphic Worksheet of Immune System (simplified)

4-b Graphic Worksheet of Immune System (detailed)

5. Creative Writing (Copy writing and Illustration sheets as needed)

5-a Write a Story

5-b Illustrate the Story

6. Castle/Knights Coloring Page (Copy as needed)

Your Amazing Body! The Immune System

The King Who Built a Castle

Imagine a *King* that built a *castle* out of golden stones and rare jewels. He filled it with fine furniture, thick carpets, velvet curtains, and beautiful paintings. The courtyard was lush with green flowering gardens. Then he invited all his friends to a party to *celebrate*. At the moment when he was most happy, *Invaders* from a foreign land suddenly broke into the castle and destroyed everything.

What happened?!

The King Forgot To Build a *Moat*

The King did not think about how to *protect* all his riches. He did not build *watchtowers*. He did not dig a *moat* of water around his castle or construct a *drawbridge*. He did not have gates and doors of thick wood and iron hinges. And he posted no guards in *armour* with *cross-bows and arrows* on the castle roof. He had no defence against *enemies* that would try to enter his castle, steal his riches and try to harm him.

Fun Fact: Your Body Is Your Castle!

A moat and guards would have protected the King's castle. Here is how your amazing body protects itself from 'Evil Invaders'.

Guards of the Immune System

Germs are in the air (*air-borne*) and on the surfaces of objects that you and others touch each day. Germs are so tiny, you have to look in a microscope to see them. Good germs are the Guards of the Immune System that keep you healthy. Bad germs that make you sick are called *pathogens*.

The body's first Defence is to *prevent* the germs that cause disease from entering your castle. Your skin is a wall that stretches to cover your body and keep out foreign invaders.

The hairs of your eyebrows, eyelashes work as a filter to trap dust and dirt from entering your body. Liquid tears wash the eyes. Sticky *mucous* liquid of the nose (snot!) forms to flush out intruding particles.

The Enemy Inside

If a strong germ gets inside your castle walls, then your Immune System rushes into battle. Like soldiers with weapons, your body is well-equipped to go to war with any germs that intend to harm you.

Super-power *antibodies* in the Immune System usually win and you stay well.

The Germ That Went Around the World

When a pathogen germ does make a person sick, that person is *contagious*. This means that germs can pass on to another person that is close by. That other person will get sick. Sometimes, travelling quickly, as people go here and there in their daily lives, the germ can infect people around the world.

To the Rescue!

The Immune System is made up of *cells, tissues, organs, and systems*. Cells are the basic building blocks of your body. Cells combine to form tissues. Tissues group together to make larger organs that do specific jobs.

Germ-fighting organs in the Immune System are the;

- *Lymph Nodes*
- *Thymus*
- *Spleen*
- *Bone Marrow.*

These germ-catching filters are located throughout the body. Their job is to keep your body healthy. They work together to form larger *systems*.

Fun Fact: Your school system is made up of teachers, students, principals, cafeteria workers, custodians, and other school employees. Their job is to provide and maintain an environment that protects and educates children.

How Does The Immune System Work?

Your Immune System is always on the job to keep you from getting sick.

B- Cells 'tag' invaders with an *antibody*. This mark warns other Immune System cells that these germs are the enemy.

K-Killer Cells rush to the invaders to devour them.

Cytotoxic T-Cells destroy body cells that get *infected* before they have a chance to spread through the rest of the body.

Memory Cells recognize and remember the enemy. The Immune System responds faster the next time that germ tries to invade the body.

Helper T-Cells aid the immune system by attracting new soldier cells to battle. How You Can Fight Germs: Your Amazing Body is working without you even thinking about it! Body systems are on guard as you sleep and wake and go about your business of being a kid. Your body is where you live. It is your castle and you are the ruler of your castle.

Here are some choices you can make everyday to fight the 'evil invaders' of your domain!

7 Things To Do 7 Days a Week

1. Wash your hands!
2. Wash your hands!
3. Wash your hands!

**Wash at least 20 seconds! Sing "Happy Birthday", "Twinkle, Little Star", or the "ABC's".

4. Eat your fruits and vegetables
5. Drink lots of water
6. Run and play in the sunshine
7. Cough and sneeze into your 'antecubital fossa' (the area of the arm that forms when you bend your elbow!) Try it!

B – Smart. B - Healthy. B - the Best ME you can Be!

Name: _____ Date: _____



**THINGS THAT I LIKE
ABOUT MYSELF...**

1. _____
2. _____
3. _____
4. _____
5. _____

Download free printables at: www.freeprintableonline.com

The King Who Built a Castle

1. The Evil Invaders

One day, a King built a Castle. Then, he invited his friends to a party.

But, Evil Invaders, from a faraway land broke into the castle. They broke everything. They hurt the people. They took all the King's gold. Then, they went back to their faraway land.

The King had not been wise. He forgot to protect his Castle. He had no defense against the Invaders.

2. Your Body is Your Castle

Your body is your Castle. Germs are the Invaders. But Your Amazing Body has Guards to defend your body.

The Guards work to stop germs from getting into your body.

Your skin and hair stop germs. Tears from your eyes wash out germs. 'Snot' from your nose washes out germs.

3. Germs Can Invade Your Body

Sometimes, a bad germ can get inside your body. Then, powerful anti-germ fighters go into action.

This is your Immune System.

4. Super Germ-Fighters!

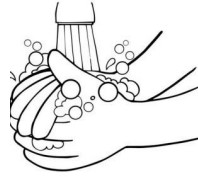
The 'weapons' in Your Immune System are very good at killing germs. But, sometimes, you might feel sick. Then, other parts within your body join together to help you get well.

Always tell someone you love if you are feeling sick. Your body might need some medicine from a Doctor to help get well.

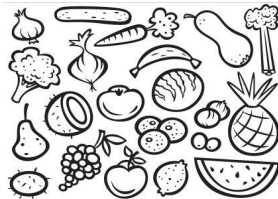
You can make healthy choices everyday to fight the 'evil invaders' of 'your' castle.

7 Things To Do 7 Days a Week

1. Wash your hands!
2. Wash your hands!
3. Wash your hands!



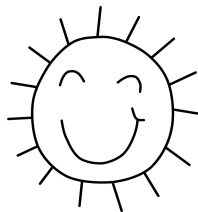
4. Eat fruits and vegetables.



5. Drink water.



6. Run and play in the sunshine.



7. Cover your mouth when you cough or sneeze.



B-Smart. B-Healthy. B- the Best ME you can Be!

Teacher Instruction for Card Game

This is a simple and really fun game to play for Reading Comprehension for Early Learners. Cut a set of different-colored construction paper squares 3x3" for each child (Ex. Red/Green). Write the Letter T on the Green and the Letter F on the Red. Read the simplified version Explain the game. Each child has a set of cards. Ask the True/False Questions below. The children answer by holding up the T or the F. No need to correct. You follow up with the correct answer. The children will adjust their cards. They will like this game.

Example Script

1. *Teacher: "A King lives in a Castle. Is that True or False?" Kids hold up a T or an F. Teacher Responds: True! A King does live in a Castle! Good job.*

2. Evil Invaders came to the castle to bring the King a nice present. True or False? False! *They wanted to rob him.*

3. The Evil Invaders stole the King's bed. True or False? False! *They stole his gold. (or ask them, "What did they steal?")*

4. The King forgot to protect his castle. True or False? True! *He had no guards. (ask, "What does it mean to be protected")*

5. Protect means to take care of something or someone. True or False? True.

6. Your body is like a Castle you live in. True or False? True!

9. Germs can get into your body. True or False? True!

10. Germs can make you sick. True or False? True! *(May want to discuss being sick)*

11. Your body has an Immune System that fights germs. True or False? True!
(explain 'System'- working together, cooperation. (your School System has teachers, parents, principal, cafeteria/maintenance workers, etc. that work together to protect you; or ask, *(We are in a School System. ask children to list the people that work at school)*)

12. You should eat plenty of candy and chocolate cake. True or False? False! *(some might answer True!. (fruits and vegetables)*

13. You should drink plenty of water to be healthy. True or False? True.
(discuss how important and how much water to drink each day)

14. Sunshine is good for you. True or False? True!

15. It's ok to cough in somebody's face. True or False? False *(cover your mouth.)*

Glossary

Antibody	Germ-Killers in the Immune System that fight disease.
Bone Marrow	Produces white blood cells for healing.
Cells	Building blocks of all living things.
Defense	Protecting something or someone against attack.
Disease	A condition of temporary or permanent illness.
Contagious	Infection passed on from one living being to another.
Filter	A material with holes that catches liquids that pass through.
Germ	A tiny living cell or group of cells that may or may not cause disease.
Hygiene	Being clean for good health and prevention of disease.
Immune System	Body cells, tissues, and organs that work together to block disease germs.
Infection	Invasion and spread of disease germs.
Invade	To enter by force to do harm.
Moat	A man-made, deep, wide ditch filled with water to deter entry.
Mucous	A protective, slippery substance of water, cells, and salts.
Lymph Nodes	Small, round parts of the Immune System that catch and remove germs.
Organs	A group of tissues that form to do a certain job in the body.
Pathogens	A germ, virus, or fungi that causes disease.
Protect	To take care of something or someone. To keep from harm.
Spleen	A large type of organ in the upper left part of the stomach that filters germs.
Tissue	Small cells in the body that group into larger forms to do certain jobs.
Thymus	A small group of special cells of the Immune System that filters germs.

Name _____ Date _____

- . Fill in the sentence blanks with words from your Word Bank.
- . Remember to cross off the word after you use it.

Word Bank

20 seconds Germs germs moat disease skin
protect

drawbridge sick contagious Cells cells guards

1. Three things that protect a 'castle' are a **d**_____, **g**_____, and a **m**_____.
2. The King lost his castle because he forgot to **p**_____ his house.
3. **G**_____ are in the air and on surfaces of objects.
4. Germs cause **d**_____.
5. The first defense against germs entering your body is a wall of **s**_____.
6. If a person gets sick, they are **c**_____.
7. **C**_____ are the basic building of the body.
8. Parts of the Immune System work together to keep your body from getting **s**_____.
9. B, T, K, 'alphabet' cells and Memory are **c**_____ that fight **g**_____.
10. I should wash my hands for at least 20 **s**_____.

Answers: 1.drawbridge/guards/moat 2.protect 3.germs 4.disease 5.skin 6.contagious 7.Cells 8.sick 9.cells/germs 10.seconds

Name _____ Date _____

Read the sentence. Draw a circle around the T if you think that sentence is True. Draw a circle around the Letter F if you think that sentence is False. (not true)

1. T F A **moat** is water around a castle.
2. T F **Invaders** are people who are coming to help you.
3. T F **Germs** are in the air.
4. T F Bad germs are called **pathogens**.
5. T F **Pathogens** are good for you.
6. T F **Mucous** is also known as 'snot'.
7. T F Bad germs can **never** get into your body.
8. T F A person who is **sick** can **infect** another person.
9. T F **Cells, tissues, organs, and Systems** are kinds of animals.
10. T F **Lymph Nodes, Thymus, Spleen, Bone Marrow** are kinds of plants.
11. T F The basic **building block of the body** and all living things is the cell.
12. T F Your **Immune system** sleeps at night.
13. T F The "alphabet" letter cells **work together** to fight germs.
14. T F The most important thing to do to fight germs is to **wash my hands**.
15. T F I should **wash my hands** for just 5 seconds.

Answers: 1T 2F 3T 4T 5F-Pathogens cause disease. 6T 7F-Bad germs enter the body through air or touching things.

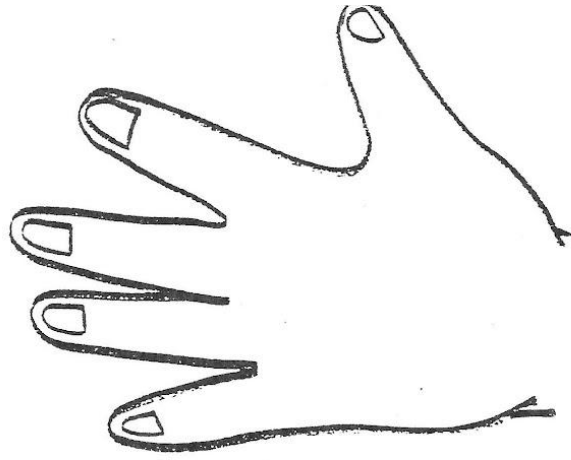
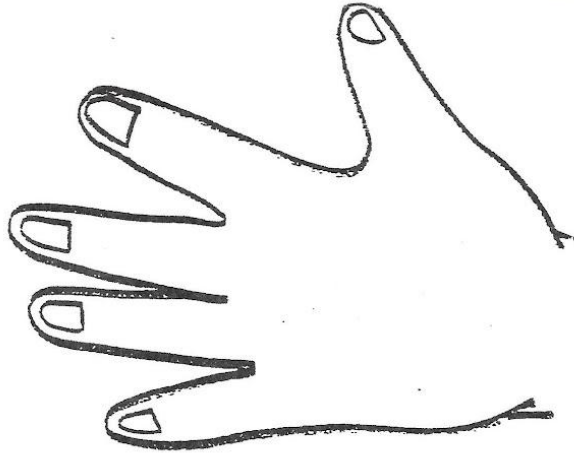
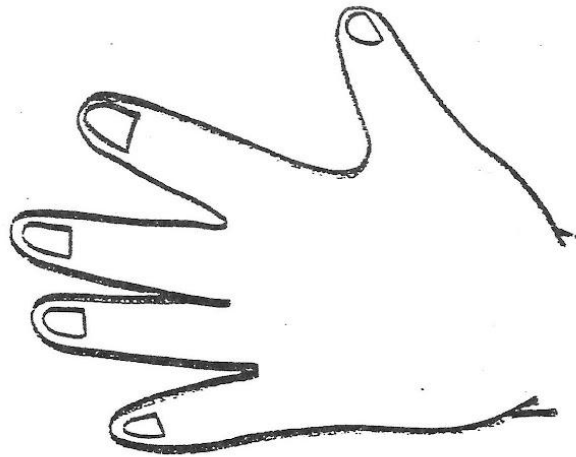
8T 9F.Cells,Tissues,Organ/Systems are part of the Body. 10F. Lymph nodes/Spleen/Bone Marrow are part of the

Immune System. 11 T. 12F Immune System never sleeps. 13T 14T 15F Wash at least 20 seconds.

Germ on hands going to lunch
without washing ...
Draw 100 dots for germs

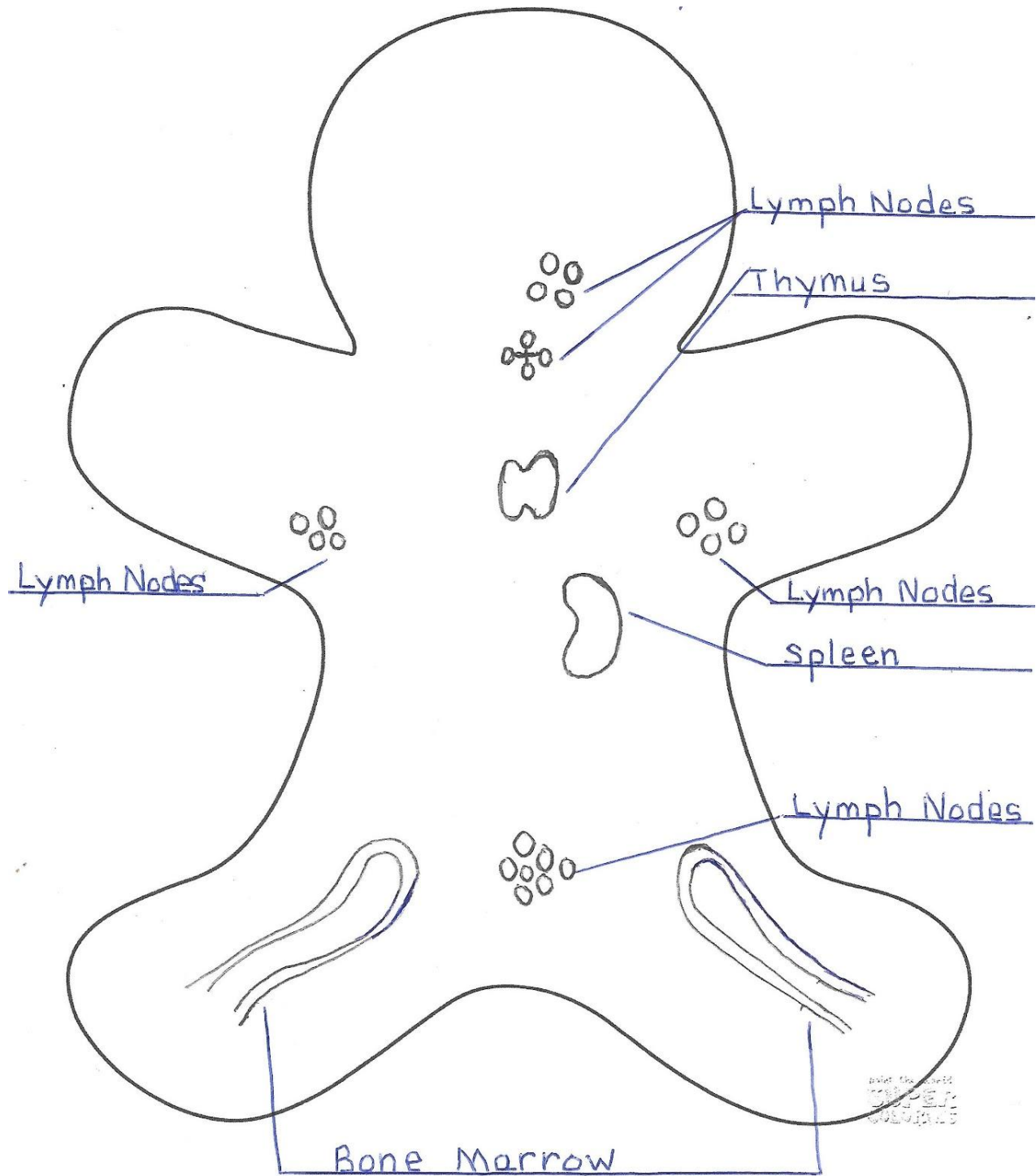
Germ on hands going to lunch
washing with water only ...
Draw 30 germs

Germ on hands going to lunch
washing with SOAP AND WATER
FOR 20 SECONDS. Draw 0 germs

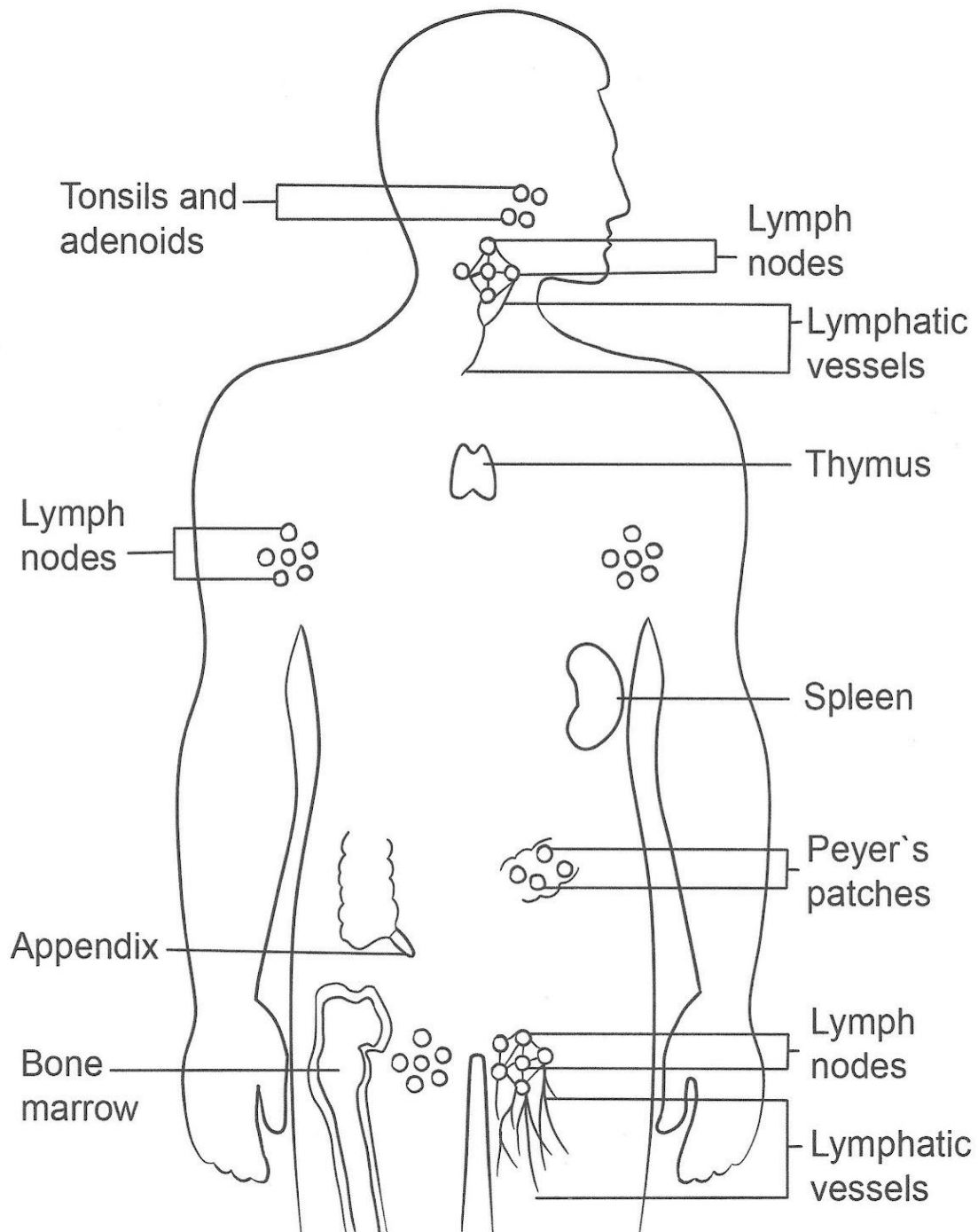


Name _____ Date _____

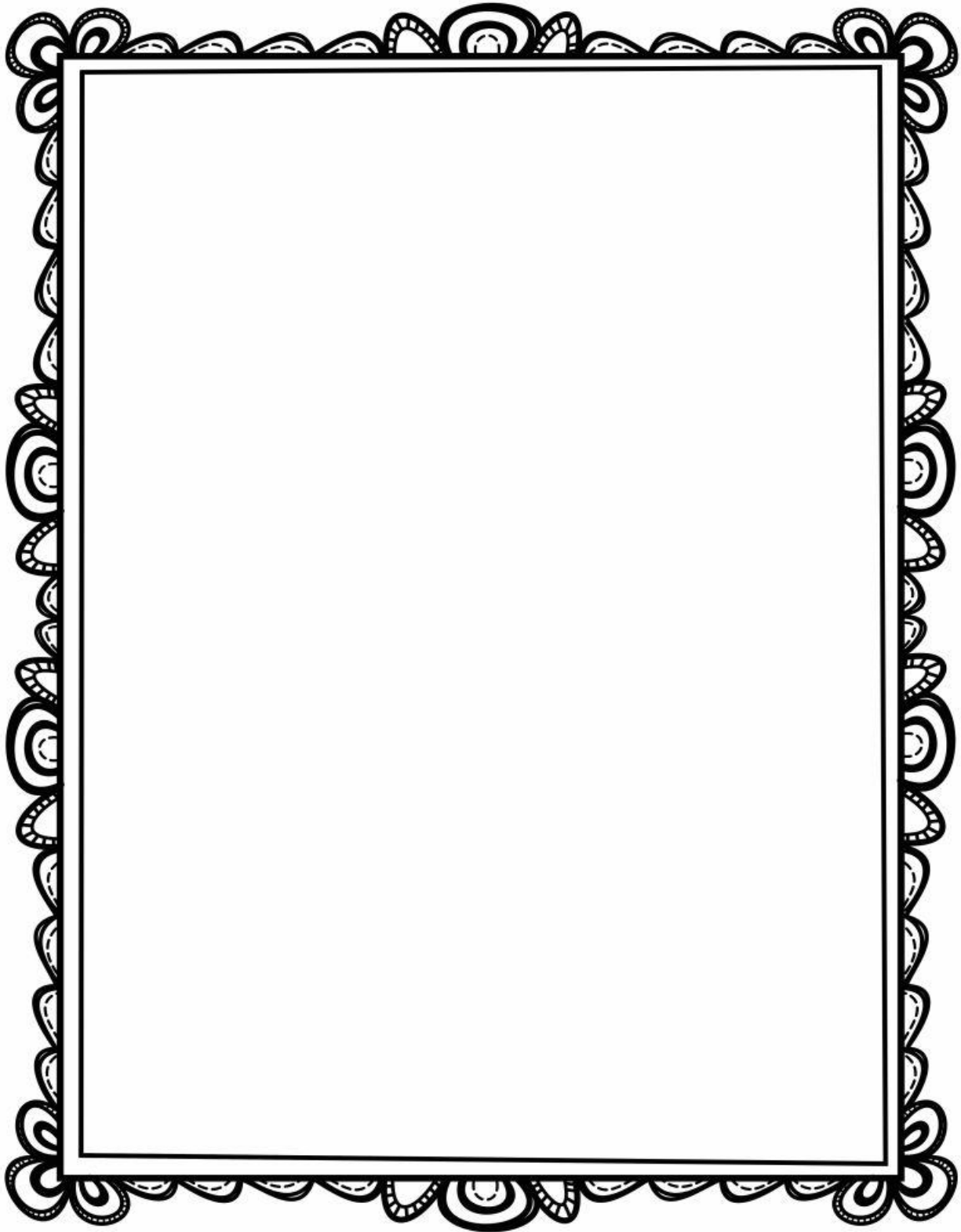
Locate the names and placement of the Parts of the Immune System.
See Glossary for further discussion.



Locate names and placement of major parts of the Immune System. See Glossary for further discussion.



Human Immune System



5-b Creative Writing: Draw a Picture (Illustration) of Your Story



6. Color the Castle and the Knight guarding the Castle.

