

Human Body Systems Project

Objectives:

- To be able to name the major body systems and their functions
- To be able to identify organs and structural parts of each system.
- To be able to enhance research and presentation skills.

Requirements:

- Work in groups to research an assigned body system, provide a diagram, and present information to the class. Information presented will be used to fill in a chart that will be used to help study for the test.
- Part 1: Introduction
 - Tell the name of your body system and describe its major functions.
- Part 2: Diagram
 - Provide a diagram of your body system with the major parts or organs labeled with their name and functions.
- Part 3: Fun Facts
 - Find five facts about your body system or its parts.

Each team will also be provided with a Body System Checklist of important terms or items that must be included in the presentation. Teams may use their health textbooks, science textbooks, reference materials, or online resources to research their organ system.

Teams will be allowed five to seven class periods to create a Power Point presentation and fill-in-the-blank worksheet with a diagram of your system. The presentation must be made using the Power Point program. The presentation must consist of at least five to six slides and no more than eight slides including the title slide.

The project is due on _____.

Teams will not be allowed to continue working on their projects after this date.

Human Body Systems Project

Project Checklist

Information

Introduction

- Did you provide the name of your organ system?
- Did you give descriptions of the major functions of your system?

Diagram

- Did you provide a diagram of your body system with the major parts or organs labeled?
- Did you give descriptions of the functions of each organ?

Fun Facts

- Did you provide five facts (or more) about your body system or its parts?

Other Information

- Did you include all the information listed on your Body System Checklist?

Worksheet

- Did the worksheet include a diagram and the functions of each part of the body system?

Presentation

- Did you have at least 5-6 slides (counting the title slide) and no more than 8?
- Did the slides enhance the presentation? Don't put in too much fancy stuff or use too many words on each slide. Keep it simple! You must talk during the presentation, so use that time to share the details.
- Was the information presented in an organized manner?
- Did you "know" the information? You should know the information well enough that you do not need to read it word-for-word off note cards or the slides.
- Did you present to the class? Don't talk to the screen!
- Did you practice? Be sure to run through your presentation a few times before you present to the class!

Group Involvement (Everyone will have a chance to "grade" their teammates!)

- Did everyone share responsibilities for preparing the presentation?
- Did everyone participate in giving the presentation?
- Did you work together and resolve problems peacefully?

Human Body Systems Project Presentation Planner

What will you include on each slide?
Use this page to help you organize your presentation!

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Slide 1: Title Slide

Slide 2 _____

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Slide 3 _____

Slide 4 _____

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Slide 5 _____

Slide 6 _____

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Slide 7 _____

Slide 8 _____

Human Body Systems Project

Body System Checklist - Circulatory System (Cardiovascular System)

- ✓ Major functions of circulatory system.
- ✓ Diagram that includes the major parts: heart, artery, vein, capillary. List the function(s) of each.
- ✓ Describe each of the components of blood: red blood cells, white blood cells, platelets, and plasma.
- ✓ Describe the path blood travels through your body.
- ✓ Find five facts about your body system. You may list the facts as sentences or use them to create trivia questions.

Body System Checklist - Respiratory System

- ✓ Major functions of respiratory system.
- ✓ Diagram that includes the major parts: nose, trachea, lungs, diaphragm. List the function(s) of each.
- ✓ Describe the “breathing” process.
- ✓ Find five facts about your body system. You may list the facts as sentences or use them to create trivia questions.

Body System Checklist - Nervous System

- ✓ Description and major functions of the central nervous system and peripheral nervous system.
- ✓ Diagram that includes the major parts: brain, spinal cord, and sensory organs. List the function(s) of each.
- ✓ Describe the path a nerve impulse travels throughout your body from stimulus to response.
- ✓ Find five facts about your body system. You may list the facts as sentences or use them to create trivia questions.

Body System Checklist - Skeletal System

- ✓ Major functions of skeletal system.
- ✓ Diagram that includes the major parts: bones. List the function(s) of each.
- ✓ NOTE: Your diagram needs to show the major bones.
- ✓ Describe each of the following joints and where they are located: hinge, pivot, and ball-and-socket. You may include other joints as well.
- ✓ Find five facts about your body system. You may list the facts as sentences or use them to create trivia questions.

Body System Checklist - Muscular System

- ✓ Major functions of muscular system.
- ✓ Describe the function and locations of each type of muscle: skeletal muscle, smooth muscle, and cardiac muscle.
- ✓ Diagram that includes the major muscles in the body.
- ✓ Describe how muscles work in pairs to make parts of the body move using the biceps and triceps as an example.
- ✓ Find five facts about your body system. You may list the facts as sentences or use them to create trivia questions.

Body System Checklist - Excretory System

- ✓ Major functions of excretory system.
- ✓ Diagram that includes the major parts: lungs, kidneys, bladder, ureter, and urethra. List the function(s) of each.
- ✓ Find five facts about your body system. You may list the facts as sentences or use them to create trivia questions.

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Body System Checklist - Digestive System

- ✓ Major functions of digestive system.
- ✓ Diagram that includes the major parts: mouth, esophagus, stomach, small intestine, and large intestines. List the function(s) of each.
- ✓ Describe the path food travels throughout the digestive system.
- ✓ Find five facts about your body system. You may list the facts as sentences or use them to create trivia questions.

Human Body Systems Project

Body Systems Presentation Rubric

Name _____ Body System _____

	EXCELLENT (4)	GOOD (3)	FAIR (2)	Poor (1)
CONTENT	All required information is presented.	Most of the required information is presented.	Some of the required information is presented.	Hardly any required information is presented.
ORGANIZATION	Presentation is well organized and easy to follow. Transition between topics is smooth.	Presentation is organized and easy to follow but transition between topics is not smooth.	Presentation is somewhat organized but hard to follow.	Presentation is very unorganized and difficult to follow.
EYE CONTACT	Eye contact is made throughout the entire presentation. Most of the presentation is not read.	Eye contact is made throughout most of the presentation. Some of the presentation is read.	Eye contact is made only during some of the presentation. Most of the presentation is read.	No eye contact is made throughout the entire presentation and all of it is read.
DIAGRAM	Diagram is creative, colorful, easy to read, and used effectively.	Diagram is colorful, readable and used somewhat effectively.	Diagram is lacking color, difficult to read, and not used effectively.	Diagram is not used at all in the presentation.
VOICE	Presentation is loud and given at a slow pace that's easy to follow.	Presentation is audible and given at a good pace.	Presentation is barely audible and given at a fast pace.	Presentation is inaudible and given at a pace too fast to follow.

TOTAL POINTS = _____ X 4 = _____

Teammates Grade = _____

Total = _____/100

Comments:

Human Body Systems Project Teammate “Grade”

EXCELLENT (20)	GOOD (10)	FAIR (5)	POOR (0)	SCORE
Individual participated and worked well in his/her group.	Individual participated but did not work well in the group.	Individual did not present information on topic, but did work well in group.	Individual did not participate and did not work well in the group.	

Teammate “Grade”

EXCELLENT (20)	GOOD (10)	FAIR (5)	POOR (0)	SCORE
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Human Body Systems Project

Body Systems Chart

Name	Function	Major Parts
Skeletal System		
Muscular System		
Circulatory System		
Respiratory System		
Digestive System		
Excretory System		
Nervous System		

Human Body Systems Project

Body Systems Chart

Name	Function	Major Parts
Skeletal System	gives shape and support to the body, protects the body, and helps in movement	bones
Muscular System	helps us move	muscles
Circulatory System	carries blood, nutrients and oxygen to all parts of the body	heart, cardiac muscles, oxygen, carbon dioxide, arteries, capillaries, veins, blood, red blood cells, white blood cells
Respiratory System	brings oxygen into the body and takes carbon dioxide out	nose, trachea (windpipe), lungs, diaphragm
Digestive System	breaks down the food we eat into energy for our body and gets the nutrients into our blood	mouth, esophagus, stomach, intestines (large and small)
Excretory System	removes wastes from the blood	kidneys, ureters, bladder, and urethra
Nervous System	allows you to experience things and to react to your environment and it connects all the tissues and organs of your body to your brain	brain, spinal cord, and sensory organs

Human Body Systems Project

Lesson Topic: INTERDEPENDENCY

ESSENTIAL QUESTION: How do the body systems work together?

AP#1: Word Map-Interdependence

AP#2: Body Systems Interaction Chart

AP#3: Learning Frame

ACTIVATING STRATEGY: Three Legged Race

1. With a partner, tie legs together for a three legged race.
2. In the first race, only 1's may move.
3. In the second race, only 2's may move.
4. In the third race, both may move.
5. Think-pair-share: Why was only the last race successful?

ACCELERATION/PREVIEWING (KEY VOCABULARY):

What's already in my head: Write a short answer to "What do I think of when I hear the word interdependence?" Choose several students to share.

1. interdependent

TEACHING STRATEGIES:

Graphic Organizer: Word Map: Interdependence and Learning Frame

Instruction:

1. With the students, talk about why they needed their partner in the three legged race. Guide them to the definition of interdependent: When two or more things need each other to accomplish a task. Discuss with students what interdependence is like and record two responses on the graphic organizer. (Examples: teamwork, count on each other, depend, need each other, rely on each other.) Ask students for examples of things that are interdependent (not body systems). (Examples: sea-sawing, three-legged race, playing tag, kickball, tic-tac-toe, run a school, post office.) Record two responses on graphic organizer.

AP#1: Word Map-Interdependence: Students add one more "what is it like?" and one more "example" to the word map.

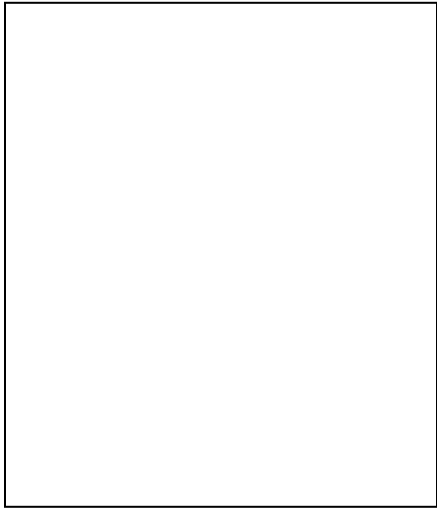
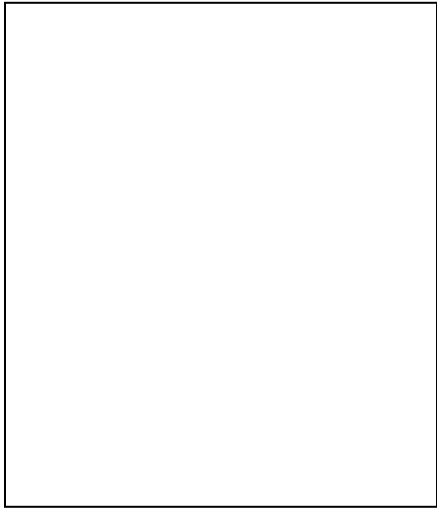
2. Think-Ink-Share: What body systems work together?
 - a. Give the students the question, three minutes to write, and then lead a discussion on which systems work together and how they do so.

AP#2: Body Systems Interaction Chart

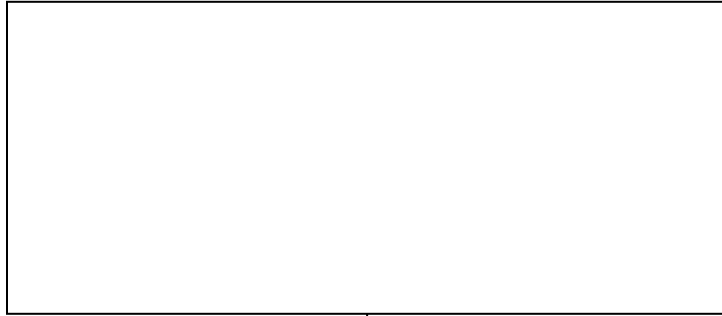
SUMMARIZING STRATEGY:

AP#3: Learning Frame

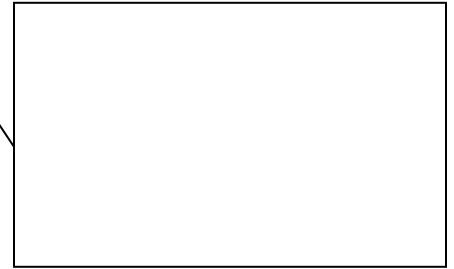
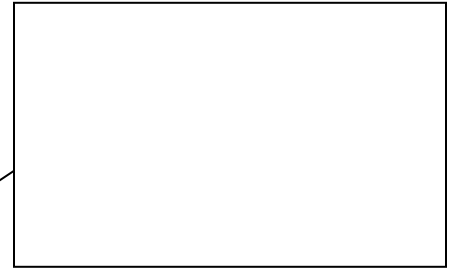
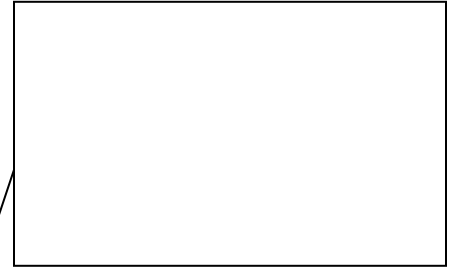
**Body System
Examples**



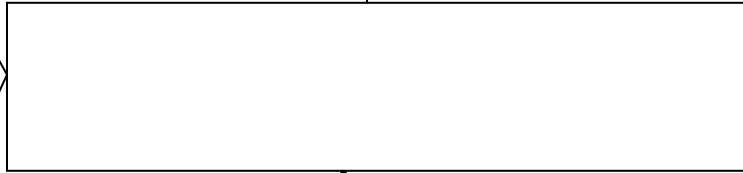
The Definition



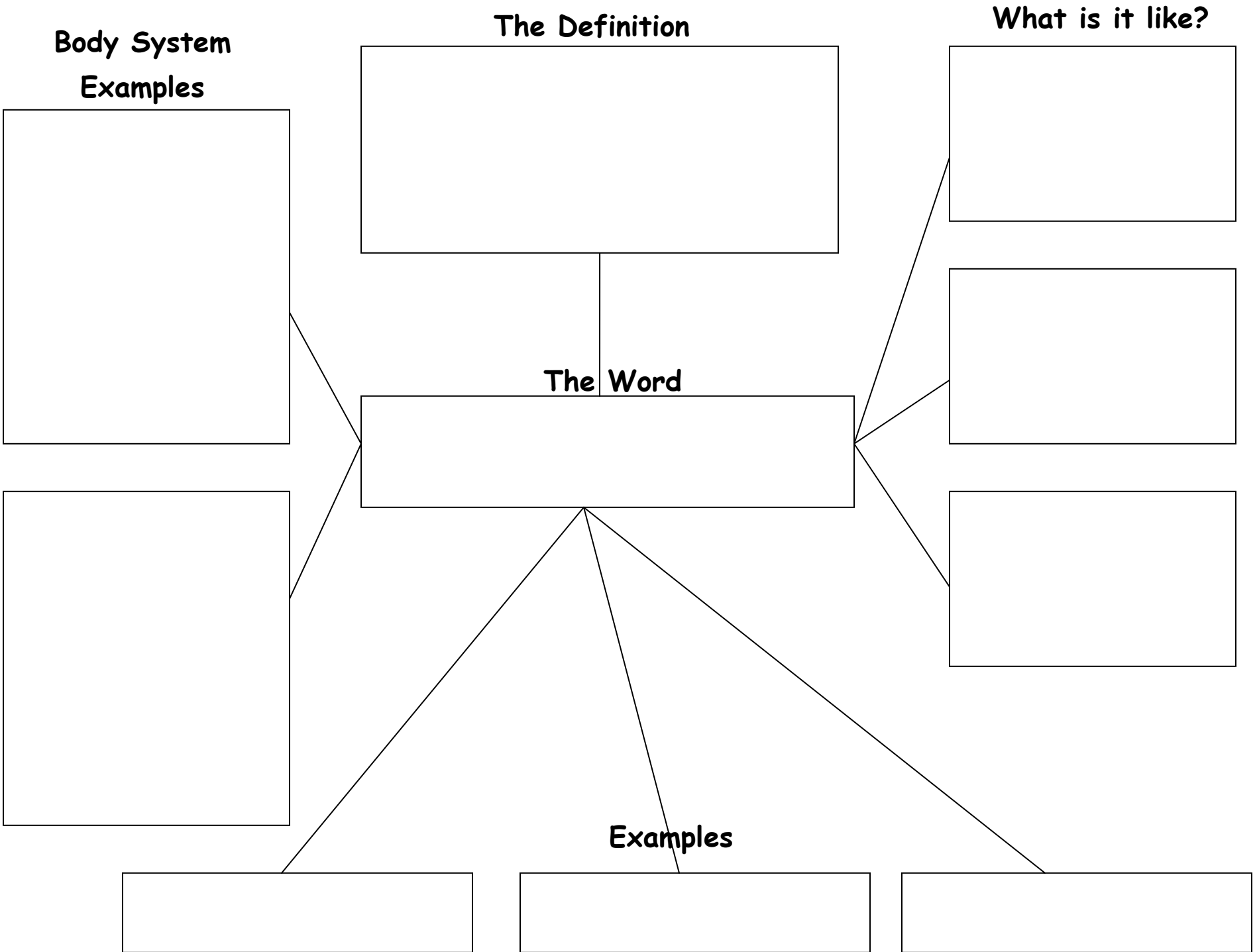
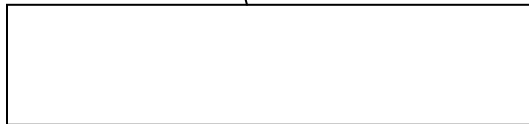
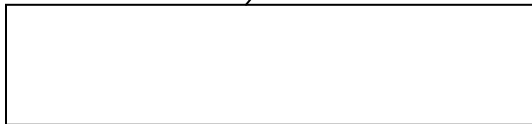
What is it like?



The Word



Examples



**Body System
Examples**

**Skeletal/Muscular
Systems**
Muscles pull on bones to make them move.

**Circulatory/Respiratory
Systems**
Respiratory system brings in oxygen and the circulatory system takes oxygen throughout the body and picks up carbon dioxide. The respiratory system pushes out carbon dioxide.

The Definition

When two or more things need each other to accomplish a task.

What is it like?

TEAMWORK

COUNTING ON EACH OTHER

The Word








INTERDEPENDENCE

Examples

Three-legged race

Post Office

BODY SYSTEMS INTERACTION CHART

	Nervous System	Circulatory System	Muscular System	Respiratory System	Skeletal System	Digestive System	Excretory System
Nervous System		the brain controls heart beat and spinal cord delivers the message to the rest of the body	the brain controls contraction of muscles and spinal cord delivers the message to the body	the brain controls the rate of breathing and the spinal cord delivers the message to the body	the brain controls movement and the spinal cord delivers the message to the body	the brain controls muscle contraction and how fast food moves and the spinal cord delivers the message to the body	the brain controls urination and the spinal cord delivers the message to the body
Circulatory System	takes oxygen throughout the body and picks up carbon dioxide		takes oxygen throughout the body and picks up carbon dioxide	takes oxygen throughout the body and picks up carbon dioxide	production of blood cells in bone marrow	soaks up and takes nutrients throughout the body	takes oxygen throughout the body and picks up carbon dioxide
Muscular System	provides protection for impulses sent down through the body from the brain	pumping of the heart & blood		movement of the diaphragm in breathing	muscles pull on bones to make them move	chewing, swallowing and movement of food through the digestive tract	bladder
Respiratory System	provides oxygen so the brain can think and control all the other systems of the body; removes carbon dioxide and water	bringing in oxygen and pushing out carbon dioxide	provides oxygen so muscles can go and do work Removes carbon dioxide and water		provides oxygen so bones can go and do work; Removes carbon dioxide and water	provides oxygen to digest food; removes carbon dioxide and water	provides oxygen to clean the blood of waste product; removes carbon dioxide and water
Skeletal System	protects the brain and spinal cord	protects heart; bone marrow produces red blood cells	gives support to the body	protects trachea, vocal cords and diaphragm		protects the mouth, esophagus, stomach, and liver	protects the kidneys
Digestive System	provides energy for the brain to all the thinking and controlling of all the other systems	provides the heart with nutrients so the heart can keep beating	provides nutrients for muscles to do work	provides the diaphragm nutrients in order facilitate breathing	provides nutrients for bone growth and repair		provides nutrients so the kidneys can clean your blood of wastes
Excretory System	cleans the blood of waste products produced by the nervous system	cleans the blood of waste products produced by the circulatory system	cleans the blood of waste products produced by the muscular system	cleans the blood of waste products produced by the respiratory system	cleans the blood of waste products produced by the skeletal system	cleans the blood of waste products produced by the digestive system	

Learning Frame

Today, I learned about _____

with my class.

The first thing we learned was _____

_____.

Next, _____

_____.

Then, _____

_____.

After that, _____

_____.

I also learned that _____

_____.

I want to learn more about _____