



# HUMAN BODY SYSTEMS POWER POINT



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

## Levels of Organization

Remember, the human body is organized in several levels, from the simplest to the most complex. . .

1. \_\_\_\_\_ -- the basic unit of life
2. \_\_\_\_\_ – clusters of cells performing a similar function
3. \_\_\_\_\_ – made of tissues that perform one specific function
4. \_\_\_\_\_ – groups of organs that perform a specific purpose in the human body

The purpose of the 11 organ systems is for the human body to maintain \_\_\_\_\_.

## The 11 Human Body Systems

The 11 human body systems are:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

## The Digestive System

Purpose: to convert food particles into simpler \_\_\_\_\_ that can be absorbed into the bloodstream and used by the body.

Major Organs and their Functions:

\_\_\_\_\_ – to chew and grind up food. \_\_\_\_\_ also begins the chemical breakdown

\_\_\_\_\_ – pipe connecting mouth to stomach

Stomach – secretes \_\_\_\_\_ (pH = 2) that leads to breakdown of food once the food is broken down in the stomach and mixed with digestive juices, it is called \_\_\_\_\_

\_\_\_\_\_ – produces the hormone \_\_\_\_\_ that regulates blood sugar levels also help neutralize stomach acid

Liver – produces \_\_\_\_\_, which breaks down fats in foods

\_\_\_\_\_ – pouch-like organ that stores bile for future use

\_\_\_\_\_ – after digestion is complete, the chyme enters the small intestine where it is absorbed into the bloodstream The chyme is propelled along by folded surfaces called villi, on the intestine



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Large Intestine – removes water from the chyme and gets the waste ready for excretion.

## The Excretory System

Purpose: to rid the body of \_\_\_\_\_, including excess \_\_\_\_\_ and \_\_\_\_\_.

### Major Organs and Their Functions

\_\_\_\_\_ – the main organs of the excretory system. Waste-laden blood enters the kidney and the kidney filters out \_\_\_\_\_, excess water and other waste products, which eventually travel out of the kidney as urine. Eventually they travel through the \_\_\_\_\_ to the urinary bladder.

\_\_\_\_\_ – solid (food) waste travels out of the body through the rectum.

\_\_\_\_\_ – sweat glands remove excess water and salts from the body.

\_\_\_\_\_ – expel the waste gas carbon dioxide.

## The Respiratory System

Purpose: to provide the body with a fresh supply of \_\_\_\_\_ for cellular respiration and remove the waste product carbon dioxide

### Major Organs and Their Functions

\_\_\_\_\_ – internal entry and exit point for air

\_\_\_\_\_ – serves as a passage way for both air and food at the back of the throat

Larynx – your \_\_\_\_\_, as air passes over your vocal chords, you speak

\_\_\_\_\_ – the “windpipe”, or what connects your pharynx to your lungs. A piece of skin, called the \_\_\_\_\_, covers the trachea when you swallow, preventing food from entering.

Bronchi – the two large passageways that lead from the trachea to your lungs (one for each lung)

-- the bronchi are further subdivided into \_\_\_\_\_

-- eventually, the further subdivisions lead to tiny air sacs called \_\_\_\_\_

\_\_\_\_\_ are in clusters, like grapes \_\_\_\_\_ surrounding each alveolus is where the exchange of gases with the blood occurs.

The \_\_\_\_\_ is the muscle that causes you to breath. Hiccups are involuntary contractions of the diaphragm.

## The Circulatory System

Purpose: to deliver oxygenated blood to the various cells and organ systems in your body so they can undergo \_\_\_\_\_



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## Major Organs and Their Functions

\_\_\_\_\_ – the major muscle of the circulatory system

-- pumps blood through its four chambers (two \_\_\_\_\_ and two \_\_\_\_\_)

-- pumps \_\_\_\_\_ blood into the lungs, where it gets \_\_\_\_\_, returned to the heart, and then pumped out through the aorta to the rest of the body -- valve regulate the flow of blood between the chambers.

Arteries – carry blood \_\_\_\_\_ and to the major organs of the body

Veins – carry blood \_\_\_\_\_ away from the major organs of the body

\_\_\_\_\_ – small blood vessels where gas exchange occurs

Blood – the cells that flow through the circulatory system

\_\_\_\_\_ Blood cells contain hemoglobin, an iron-rich protein that carries oxygen

\_\_\_\_\_ Blood cells function in the immune system fighting disease.

\_\_\_\_\_ help in blood clotting

Spleen – \_\_\_\_\_.

## The Nervous System

Purpose: to coordinate the body's \_\_\_\_\_ to changes in its internal and external environment

## Major Organs and Their Functions

\_\_\_\_\_ – control center of the body, where all processes are relayed through, consists of  
\_\_\_\_\_ (controls thought and senses) and \_\_\_\_\_ (controls motor functions)

\_\_\_\_\_ – sends instructions from the brain to the rest of the body and vice versa. Any organism with a major nerve cord is classified as a \_\_\_\_\_.

\_\_\_\_\_ – conduct impulses to muscle cells throughout the body.

## The Endocrine System

Purpose: to control growth, development, metabolism and reproduction through the production and secretion of hormones.

## Major Organs

\_\_\_\_\_  
\_\_\_\_\_



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## The Skeletal System

**Purpose:** to provide \_\_\_\_\_ and \_\_\_\_\_ to the human body.

Bones are where new blood cells are generated (in the marrow), and require the mineral \_\_\_\_\_ for strength

### **Major Bones of the Human Body**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

## The Muscular System

**Purpose:** works with the skeletal and nervous system to \_\_\_\_\_, also helps to circulate blood through the human body

-- muscle cells are \_\_\_\_\_

-- muscle contractions can be \_\_\_\_\_ or \_\_\_\_\_

### **Major Muscles in the Human Body**

_____	_____	_____	_____
_____	_____	_____	_____

## The Immune System

**Purpose:** to remove \_\_\_\_\_ and other pathogens from the human body

### **Major Organs and Their Functions**

Skin – also called the \_\_\_\_\_ system, the skin is the body's first line of defense

White Blood Cells – recognize disease agents (antigens) and create antibodies to tag and remove these antigens. Phagocytes are the white blood cell type that actually eats and destroys these antigens

\_\_\_\_\_ – help restore fluid lost by the blood and return it to the circulatory system.

