

Human Body Systems Slideshow

This is an **individual** project- not a group project. Your textbook, notebook, colored pencils, Google Slides and anything else needed to fit the requirements of the project should be brought to class each day. Slideshow should be created in Google Slides and shared with Mrs. King.

Your slides must include:

- 1: Name of the slideshow
- 2: Table of Contents (look at your Biology book for an example)
- 3: **Integumentary System**
 - Explain the differences between the epidermis and dermis
 - Include a diagram of skin with the dermal layers and label the parts
 - What are the functions of the integumentary system?
 - Write 4-5 complete sentences about skin injury and healing
 - Explain what systems rely on the function of the Integumentary System and why.
- 4: **Skeletal System**

Explain the differences in the axial skeleton and the appendicular skeleton

 - Explain the differences in joints and ligaments
 - What are the differences between spongy bone and compact bone?
 - Describe the formation of bone
 - What are the growth plates and how do they close?
 - What are the functions of the skeletal system?
 - How do bones store minerals?
 - Describe bone injury and disease
 - Explain what systems rely on the function of the Skeletal System and why.
- 5: **Muscular System**
 - Name the three types of muscles
 - Include diagrams of the three muscles
 - Describe skeletal muscle contraction
 - Describe muscle strength and exercise
 - Show diagrams and describe the difference between slow twitch and fast twitch muscles.
 - Explain what systems rely on the function of the Muscular System and why.
- 6: **Digestive System**
 - What are the functions of the digestive system?
 - How does the structure of your different teeth, provide the function?
 - What chemicals are used to digest food in your mouth?
 - How important is the pancreas to this system?
 - Include a diagram of the mouth with labeled parts
 - Describe the process of the stomach
 - Describe the process of the small intestine
 - How is food absorbed in the small intestine?
 - Describe the process of the large intestine
 - Include a diagram of the Nutrition pyramid
 - Describe the vital nutrients
 - Explain what systems rely on the function of the Digestive System and why.
- 7: **Endocrine System**
 - Describe the endocrine system
 - What is negative feedback?
 - How important is the pancreas to this system?
 - What are the actions of steroid hormones?
 - What are the actions of amino acid hormones?
 - How do adrenal glands play a role in your body for stressful situations?
 - What is the thyroid and parathyroid hormones?

- What are the top 5 hormones made in the brain and what is their purpose?
 - Explain what systems rely on the function of the Endocrine System and why.
- 8: **Nervous System**
- What are the basic units of a neuron?
 - Find a diagram of the nervous system including sympathetic and parasympathetic.
 - Describe a neuron impulse and a neuron at rest
 - How is an impulse transmitted?
 - Describe the difference in white matter and gray matter
 - Describe the parts of the Central Nervous System
 - Describe the parts of the Peripheral Nervous System
 - Explain what systems rely on the function of the Nervous system and why.
- 9: **Lymphatic System**
- What is the purpose of lymphatic vessels?
 - How is a white blood cell different than a red blood cell?
 - Describe how white blood cells are formed.
 - How is the spleen important to this system?
 - What is the purpose of lymph nodes?
 - Where are lymph nodes located in the body?
 - How important is it that your body keeps a record of your sicknesses and why?
- 10: **Respiratory System**
- What is the respiratory system made up of?
 - Describe the pathway of air in your lungs
 - What are the mechanics of breathing?
 - Once oxygen has reached the lungs, where will it travel next?
 - What is the role of surfactants and what would happen if they were absent?
 - Include a diagram of the lungs, label all the parts
 - Describe controlled respiration
 - What is an iron lung and what was its purpose?
 - Explain what systems rely on the function of the respiratory system and why.
- 11: **Circulatory System**
- What is plasma?
 - What are the components of blood?
 - Describe oxygen in the blood
 - Describe carbon dioxide in the blood
 - How are white blood cells important?
 - What is a blood clot?
 - Find a diagram of veins and arteries.
 - Explain the difference between veins and arteries.
 - Describe the important of the heart
 - Describe the flow of blood through heart
 - Explain what systems rely on the function of the Circulatory system and why.
- 12: **Excretory (Urinary) System**
- What is the importance of your kidney?
 - What is the filtering unit of the kidney?
 - How is urine formed?
 - How is the urinary system related to homeostasis?
 - What role does the skin play in the excretory system?
 - How are kidney stones formed?
 - How can kidney stones be removed?
 - What is urine primary made up of?
 - Explain what systems rely on the function of the excretory system and why.
- 13: **Vocabulary-** add a list of terms at the end of the book. Alphabetize the terms under the proper system headings.
- 14: **Over and beyond... make a list of 10 Who/What am I questions.**

Example: I protect you by keeping water in and foreign particles out. What am I?