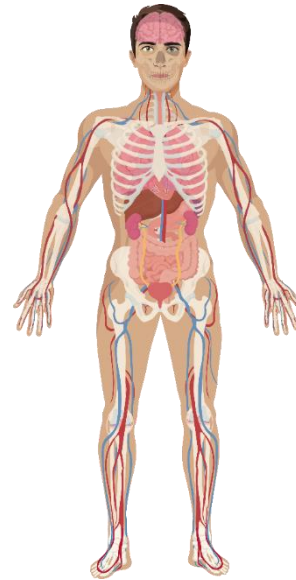


TOPIC: INTRODUCTION TO ORGAN SYSTEMS

- Recall: organ system - group of organs that coordinate to perform a common _____.
- _____ of anatomy and physiology often broken up by organ system.
 - Grouped by function:
 - Protection, structure, & support (3)
 - Communication & integration (2)
 - Transport & immunity (2)
 - Nutrient, gas, & waste exchange (3)
 - Reproduction (1 system w/ two variants)
 - Important: Bodies are highly _____.
 - Organs & systems have many _____ functions.



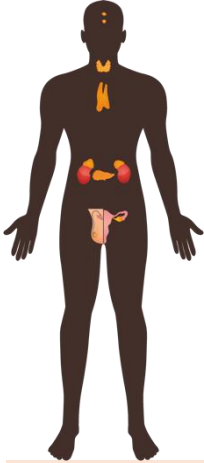
Protection and Support

Integumentary System		Skeletal System		Muscular System	
	Skin		Bones		Muscles
	Hair		Cartilage		
	Nails				
n Protection, _____ regulation		n _____, protection		n _____	

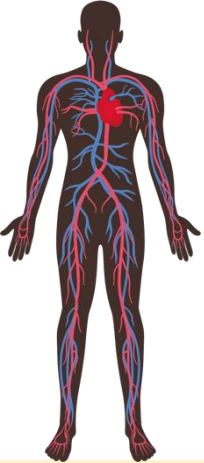
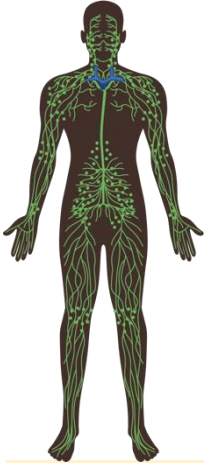
- Muscular & skeleton: sometimes combined as the _____ skeletal system.

TOPIC: INTRODUCTION TO ORGAN SYSTEMS

Communication and Integration: Systems most responsible for maintaining _____.

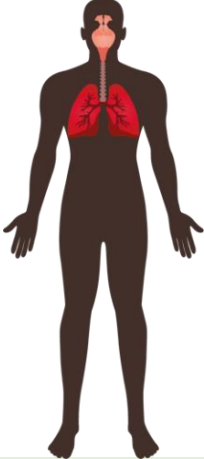
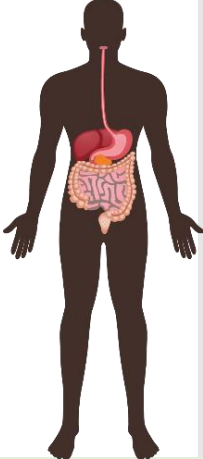
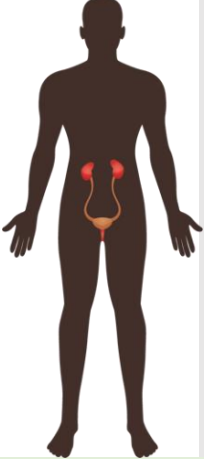
Nervous System		Endocrine System	
	Brain Spinal cord Nerves		Pineal gland Hypothalamus Pituitary gland Thyroid gland Thymus gland Adrenal gland Pancreas Ovaries/Testes
	n _____ communication and integration using electrical signals		n _____ body coordination, using chemical messengers (hormones)

Transport and Immunity:

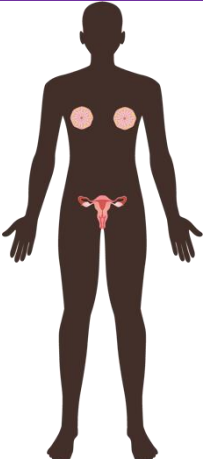
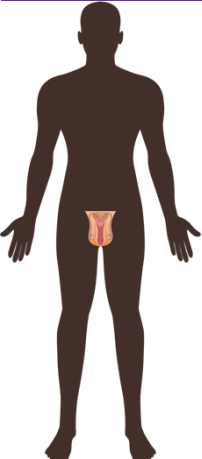
Circulatory System (Cardiovascular System)		Lymphatic System & Immune System	
	Heart Arteries Capillaries Veins Blood		Lymphatic Vessels Lymph Nodes Tonsils Thymus Spleen
	n _____ materials through the body.		n Transport _____ and provide immunity.

TOPIC: INTRODUCTION TO ORGAN SYSTEMS

Gas, Nutrient, and Waste Exchange: exchange material between outside the body and the _____.

Respiratory System		Digestive System		Urinary System	
	Nasal Cavity		Mouth		Kidneys
	Pharynx		Esophagus		Ureters
	Larynx		Stomach		Bladder
	Trachea		Small Intestine		Urethra
	Lungs		Large Intestine		
n Exchange gases (____ & ____)		n Obtain ____ & ____ ____ from food.		n Remove ____ & excess ____ from blood.	

Reproduction: produce _____.

Female Reproductive System		Male Reproductive System	
	Mammary glands		Testes
	Ovaries		Ductus Deferens
	Uterine Tubes		Prostate Gland
	Uterus		Penis
	Vagina		
n Produce _____ , receive sperm, support fetal development.		n Produce and deliver _____.	

TOPIC: INTRODUCTION TO ORGAN SYSTEMS:

PRACTICE: The digestive and respiratory systems are both responsible for taking in useful molecules into the body.

When taken in by these systems, where do the molecules go first?

- a) The muscular system.
- b) The cardiovascular system.
- c) The endocrine system.
- d) The urinary system.

PRACTICE: Which system is the least responsible for keeping you alive on a day-to-day basis?

- a) The reproductive system.
- b) The cardiovascular system.
- c) The digestive system.
- d) The endocrine system.

PRACTICE: Distinguish between the endocrine system and the nervous system.

- a) The nervous system sends messages using chemical signals, while the endocrine system uses electric signals.
- b) The endocrine system's communication mechanisms tend to work more slowly than the nervous system.
- c) The endocrine system uses direct point-to-point communication; the nervous system sends whole-body messages.
- d) Both the systems use hormones, but hormones from the endocrine system enter the blood.

PRACTICE: Which two systems allow materials to move from one region of the body to another?

- a) Endocrine and cardiovascular.
- b) Respiratory and digestive.
- c) Digestive and integumentary.
- d) Circulatory and lymphatic.

PRACTICE: Which organ systems directly allow waste materials to be passed out of the body?

- a) Respiratory and endocrine.
- b) Circulatory and digestive.
- c) Urinary and respiratory.
- d) Circulatory and lymphatic.

PRACTICE: Of all your systems, the integumentary, respiratory, and digestive most regularly experience infection from microorganisms. Which answer best describes why that may be the case?

- a) All three systems are in regular contact with substances from outside the body that may contain bacteria.
- b) All three systems are closely linked to the immune system, meaning they protect against microorganisms.
- c) All three systems have limited blood supply, meaning the body has difficulty fighting infection in those places.
- d) All three systems function to transfer materials from outside of the body to inside the body, giving microorganisms an entry point.