

# Body Organization and Homeostasis

## Chapter 1 Section 1



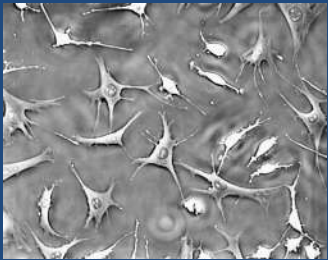
Put the following levels of body organization into order from smallest to largest

- a) Cell, organ, organ system, tissue
- b) Organ, organ system, tissue, cell
- c) Cell, tissue, organ, organ system
- d) Organ system, organ, tissue, cell

# Body Organization



# Example



# Cells

- Basic unit of structure and function in a living thing
- Skin cells
- Neurons (nerve) cells
- Blood cells
- Bone cells
- Muscle cells
- Stem cells

# Tissues

- Groups of similar cells that perform a similar function.
- Types:
  - Muscle tissue- contracts to allow movement
  - Nervous tissue- carries messages back and forth from the brain to the rest of the body
  - Connective tissue- connects and supports the body (bone, fat, blood)
  - Epithelial- covers the surface of your body and lines your internal organs (skin)

# Organs

- Structures that are composed of different types of tissue to perform a specific job.

## Examples:

- Heart
- lungs
- Kidneys
- Bladder
- Stomach
- Brain
- Pancreas
- Gall bladder
- Skin



# Organ Systems

- Group of organs that work together to perform a major function.
- Examples
  - Skeletal
  - Muscular
  - Circulatory
  - Digestive
  - Nervous
  - Respiratory
  - Excretory
  - Immune
  - Integumentary
  - Reproductive

# Homeostasis

- Process by which an organism keeps an internal balance.
  - Ex: Shivering and sweating to maintain body temperature
- Can be disrupted by stress.
  - Ex: When you are nervous, your heart beats faster.