

## Functions of Various Organs

### Organ

- A group of tissues working together to perform a particular function in an organism

### Animal organs

#### Skin

- Protects the inner cells from damage
- Defense against disease
- Waterproof
- Insulates
- Helps control body temperature:
  - blood flow
  - sweat
  - goosebumps – raising hairs to keep warm air beside skin
- Excretes waste
- Makes vitamin D for bone development
- Nerve endings sense heat, pressure, pain

## Lungs

- Exchange of gases from the bloodstream
- Designed to maximize surface area
- Alveoli are main area of gas exchange
- Oxygen diffuses into the blood
- Carbon dioxide diffuses out
- The concentration of carbon dioxide in our blood determines how often we inhale and exhale

## Heart

- Pump for the circulation of blood
- Right side deoxygenated blood
- Left side oxygenated blood
- Pumps oxygenated blood to body and brain
- Pumps deoxygenated blood to lungs
- LUB – DUB are the sounds of the valves closing

## Digestive Organs

- Break up food – mechanical and chemical
- Push food through the tube – peristalsis
- Absorb nutrients
- Makes vitamin K – in large intestine
- Removes excess waste
- Helps with water balance in the body

# Functions of Plant Organs

## Roots

- Anchors the plant in soil
- Collect water and minerals
- Storage of food – starch and sugars

## Leaf

- Photosynthesis
  - Carbon dioxide and water and sunlight → sugars and oxygen
- Gas exchange
  - Stomata open and close to allow carbon dioxide to enter and oxygen and water to leave
  - Guard cells control the openings

## Stem

- Transport of materials – vascular tissues
- Support of leaves and flowers

## Flower

- Reproductive structure
- Attract insects and birds in order for pollination
  - Male pollen → female pistil → eggs
- Seed/fruit development