

# The Human Perspective

## Chapter 1

# Biology is the study of life.

- What makes something living?
  - Respond to stimuli
  - Grow and develop
  - Reproduce
  - Maintain Homeostasis
  - Organization
  - Adaptations evolve over time
  - One or more cells
  - Requires energy

# Organization of Life

Simple to Complex

- Cells – basic unit of life
- Tissue – similar cells working together
- Organ – structure made from tissues that work together to maintain homeostasis
  - Homeostasis – Internal environment for cells that varies only within certain limits.
- Organ systems – group of organs that perform a specific function

# How do humans fit in?

- Humans do all the things that living things do.
- Unlike other living things humans have a cultural heritage.
- Humans have DNA and ATP like all other living things

# ■ Classification of Living Things

## ■ Kingdom – Animalia

– Phylum – Chordata

■ Class – Mammalia

– Order – Primates

■ Family – Hominidae

\* Genus – (homo)

> Species – Sapiens

## ■ Biosphere

- A series of cycles (energy-food chain, water, oxygen nitrogen and carbon dioxide.)
- Humans modify ecosystems to meet their needs
- Impact by increasing human populations can be devastating

## ■ Biodiversity

- Total number of different species in an ecosystem
- Extinction – complete loss of a species
  - Last mass extinction 65 mya