

Notes:
Chapter 1.1-
The Study of Biology

- 8 Characteristics ALL of Living Things
 - Made of **CELLS**
 - Display **ORGANIZATION**
 - GROW** and **DEVELOP**
 - REPRODUCE**
 - RESPOND** to stimuli
 - Require **ENERGY**
 - Maintain **HOMEOSTASIS**
 - ADAPT** to environment over time

Made of one or more cells

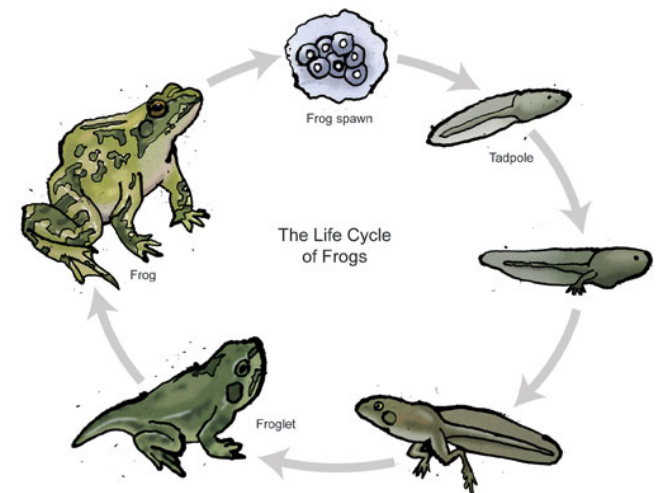
- Cells are the basic unit of structure and function in all living things.
 - *unicellular* (one cell)
 - *multicellular* (many cells).

Display organization

- Living things are arranged in an orderly way.
- **Single cells:** organelles
- **Multicellular organisms:**
Cells → tissues → organs → organ systems → organism

Grow and develop

- Most organisms begin as a single cell.
- The addition of mass is called **growth**.
- The process of changes over a lifetime is called **development**.



Reproduce

- Organisms that can breed with one another and produce fertile offspring are known as a **species**.

Respond to stimuli

- **Stimulus** Anything that causes a reaction
- **Response** The reaction to a stimulus

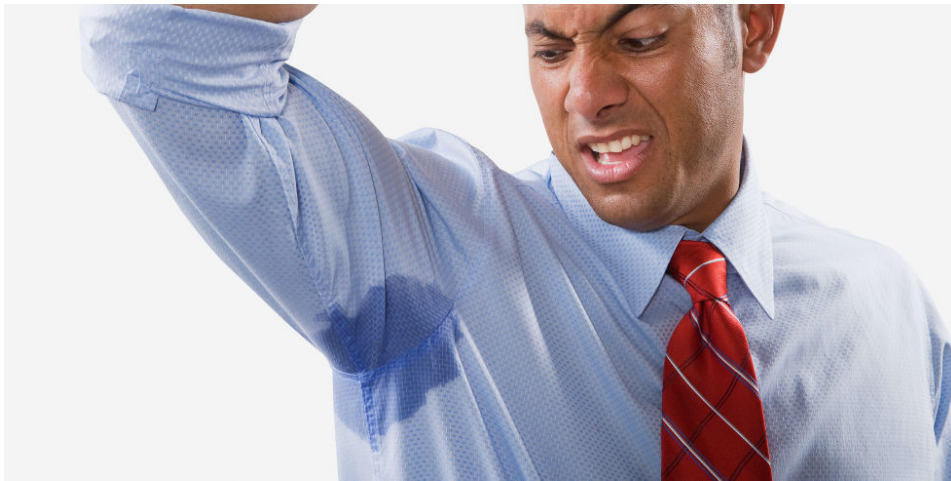


Require energy

- Living things get their energy from food.
- plants use light to make their own food.
- other organisms get energy by eating

Maintain homeostasis (balance)

- **Homeostasis**- balancing internal conditions



Adaptations evolve over time

- An **adaptation** is an inherited characteristic that results from changes to a species over time.

