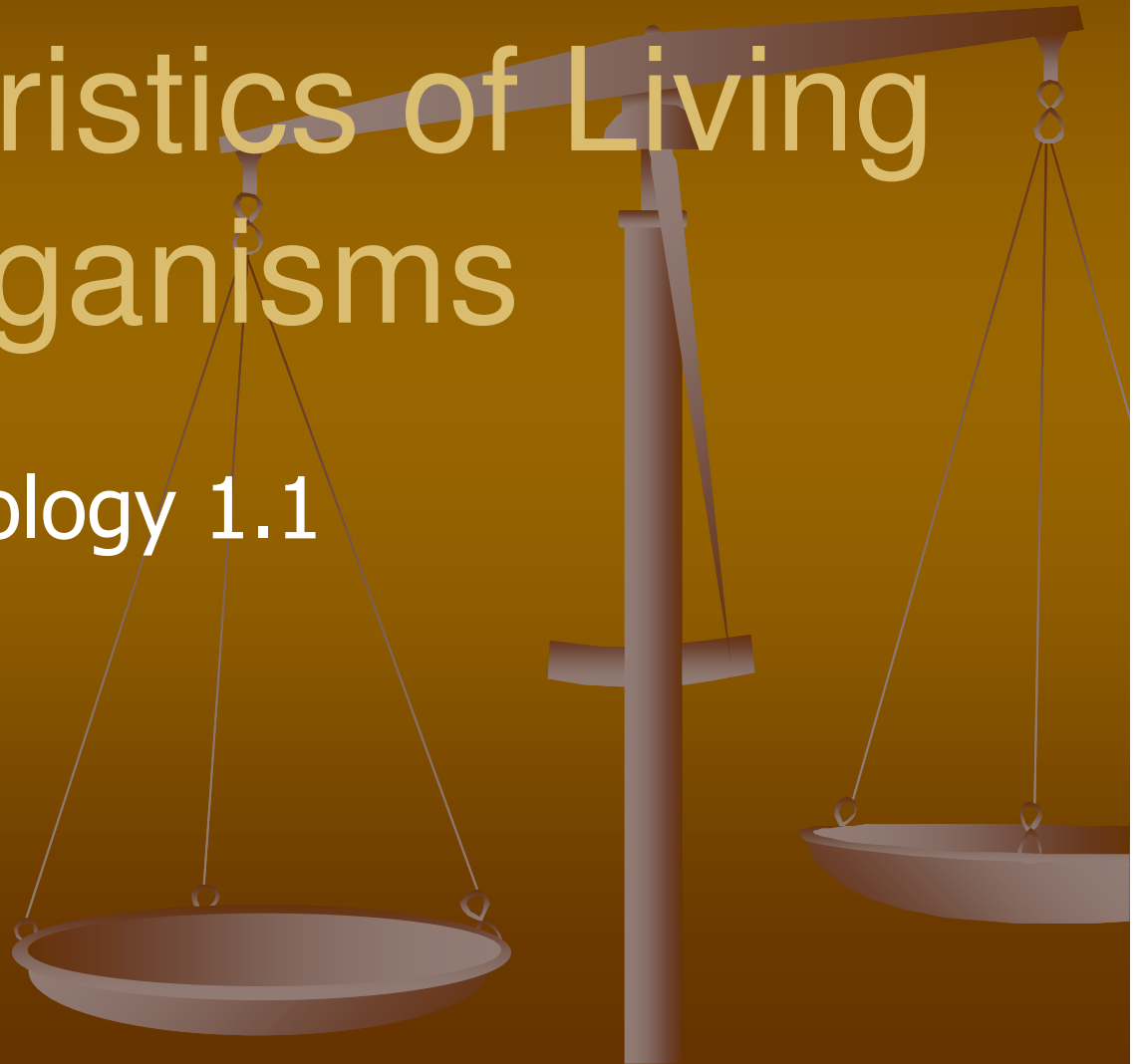


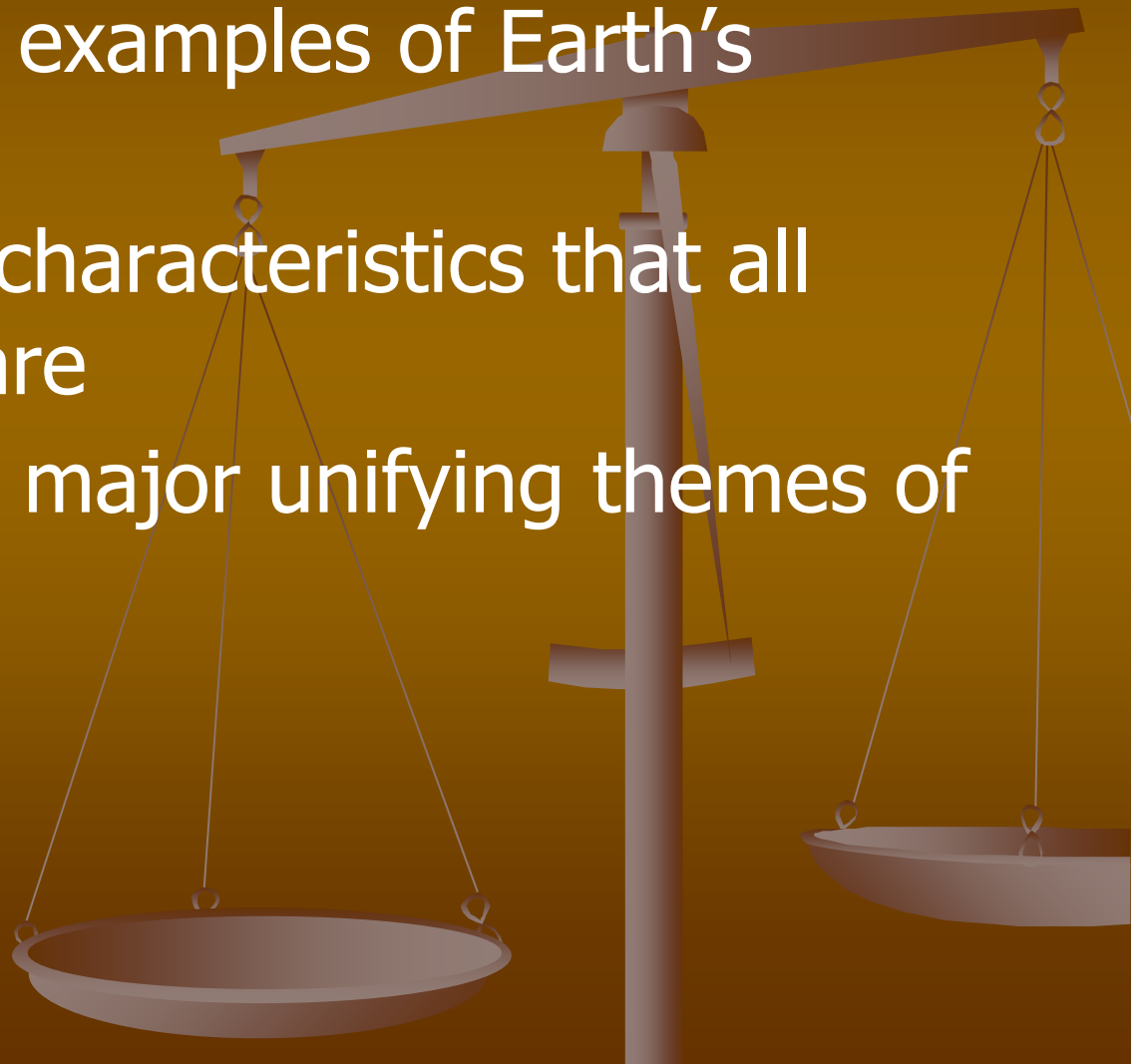
Characteristics of Living Organisms

Biology 1.1



Objectives

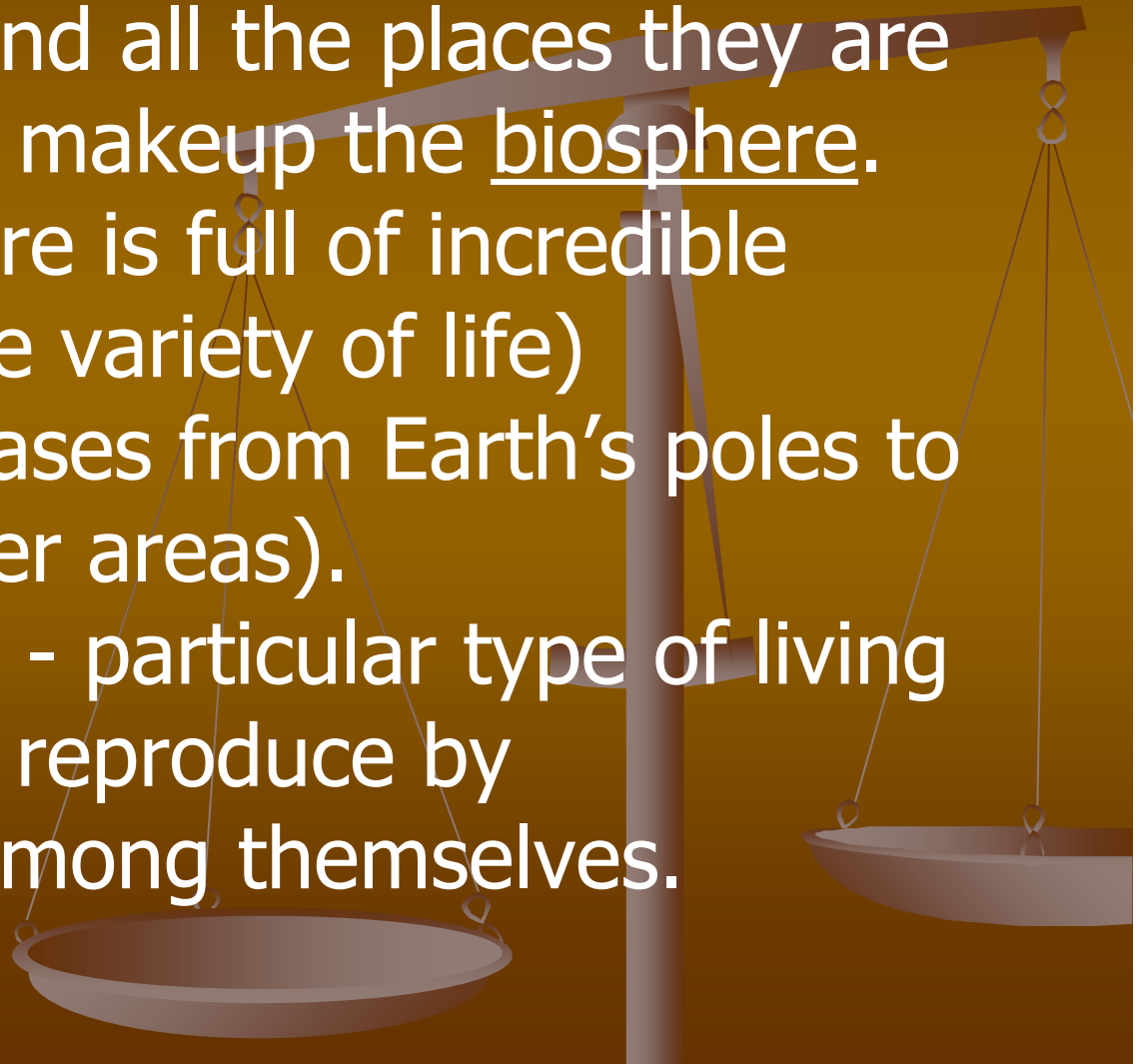
- Define and give examples of Earth's biodiversity
- Summarize the characteristics that all living things share
- Summarize four major unifying themes of biology



Earth's Diverse Life

All living things and all the places they are found on Earth makeup the biosphere.

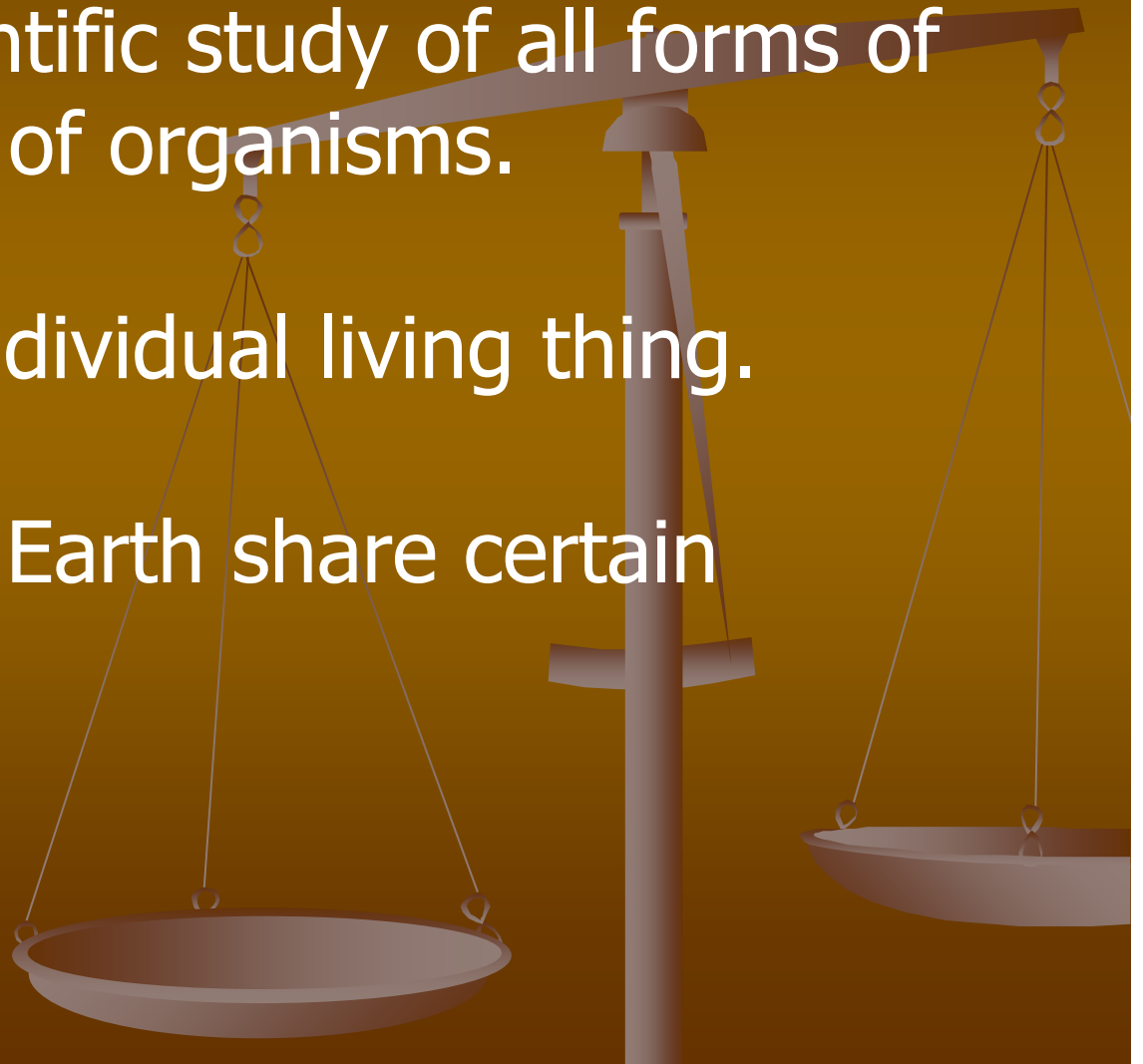
- Earth's biosphere is full of incredible biodiversity (the variety of life)
- Generally increases from Earth's poles to equator (warmer areas).
- Several species - particular type of living things that can reproduce by interbreeding among themselves.



Biology: the scientific study of all forms of life, or all types of organisms.

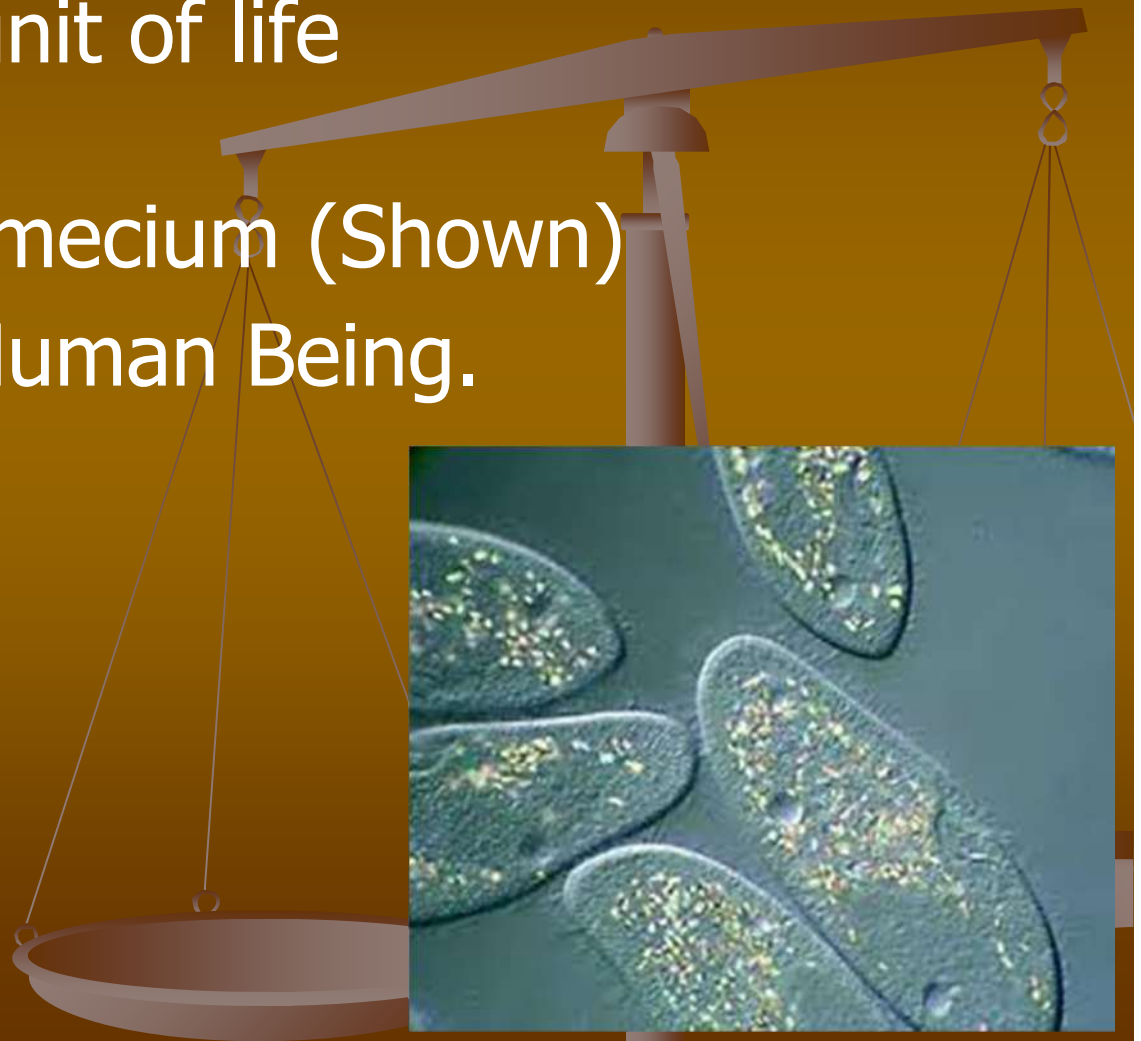
Organism- any individual living thing.

All organisms on Earth share certain characteristics



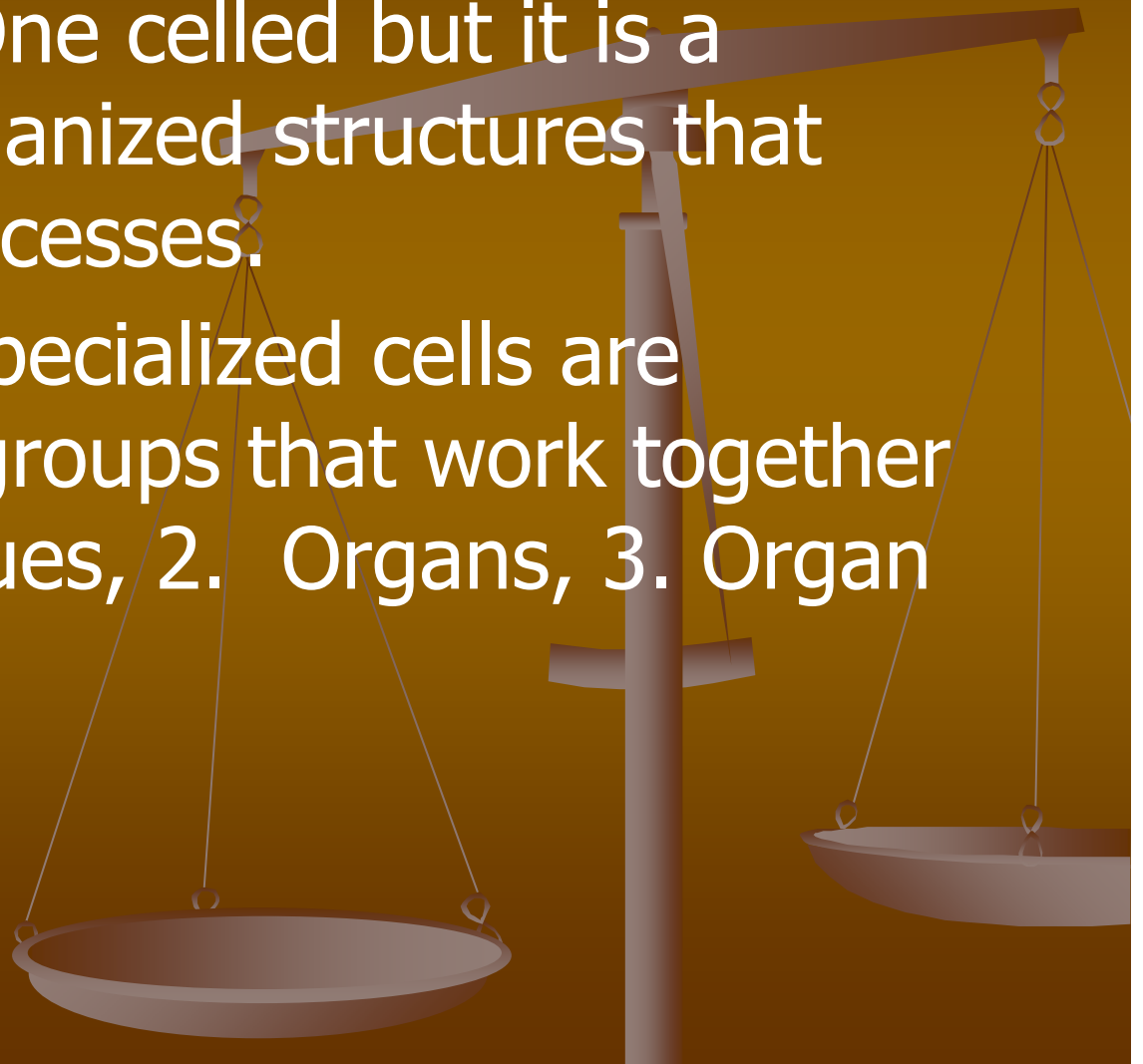
Made of one or more cells.

- Cell: the basic unit of life
- Unicellular Paramecium (Shown)
- Multicellular – Human Being.



Displays Organization

- Paramecium: One celled but it is a collection of organized structures that carry on life processes.
- Multicellular: Specialized cells are organized into groups that work together called: 1. Tissues, 2. Organs, 3. Organ Systems.



Grows and Develops

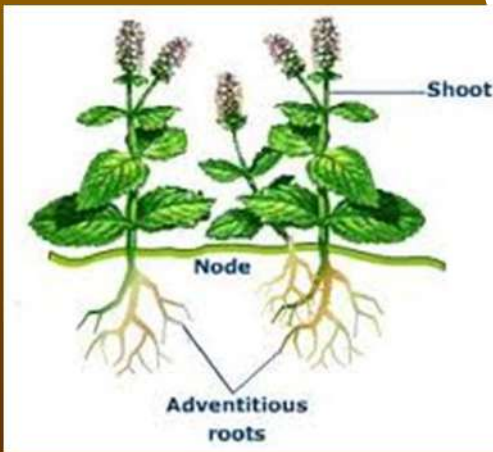
Tadpole develops into a frog.



- Instructions for growth and development carried by DNA and RNA (ribonucleic acid).
- process of development allows organisms to mature and gain the ability to reproduce.

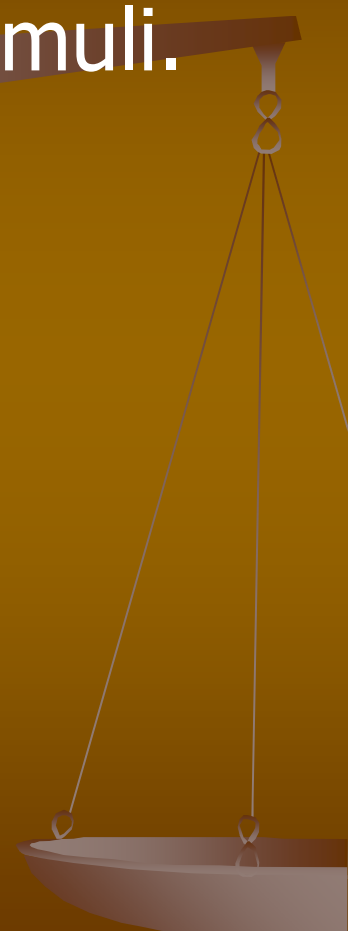
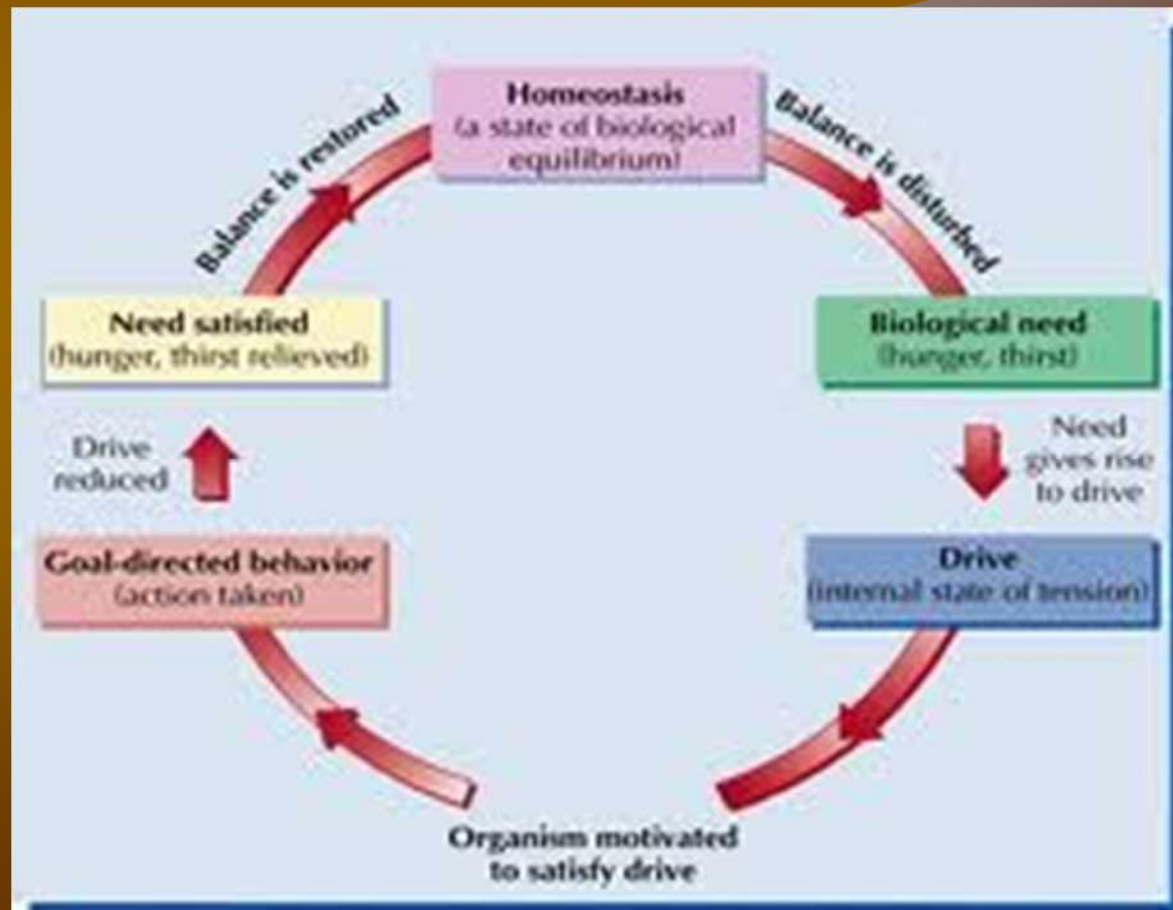
Reproduces

- When organism reproduce they pass on genetic material, DNA (deoxyribonucleic acid)
- Asexual- single-celled organisms- one cell divides into two cells- identical to original cell
- Sexual- Two multicellular parent organisms



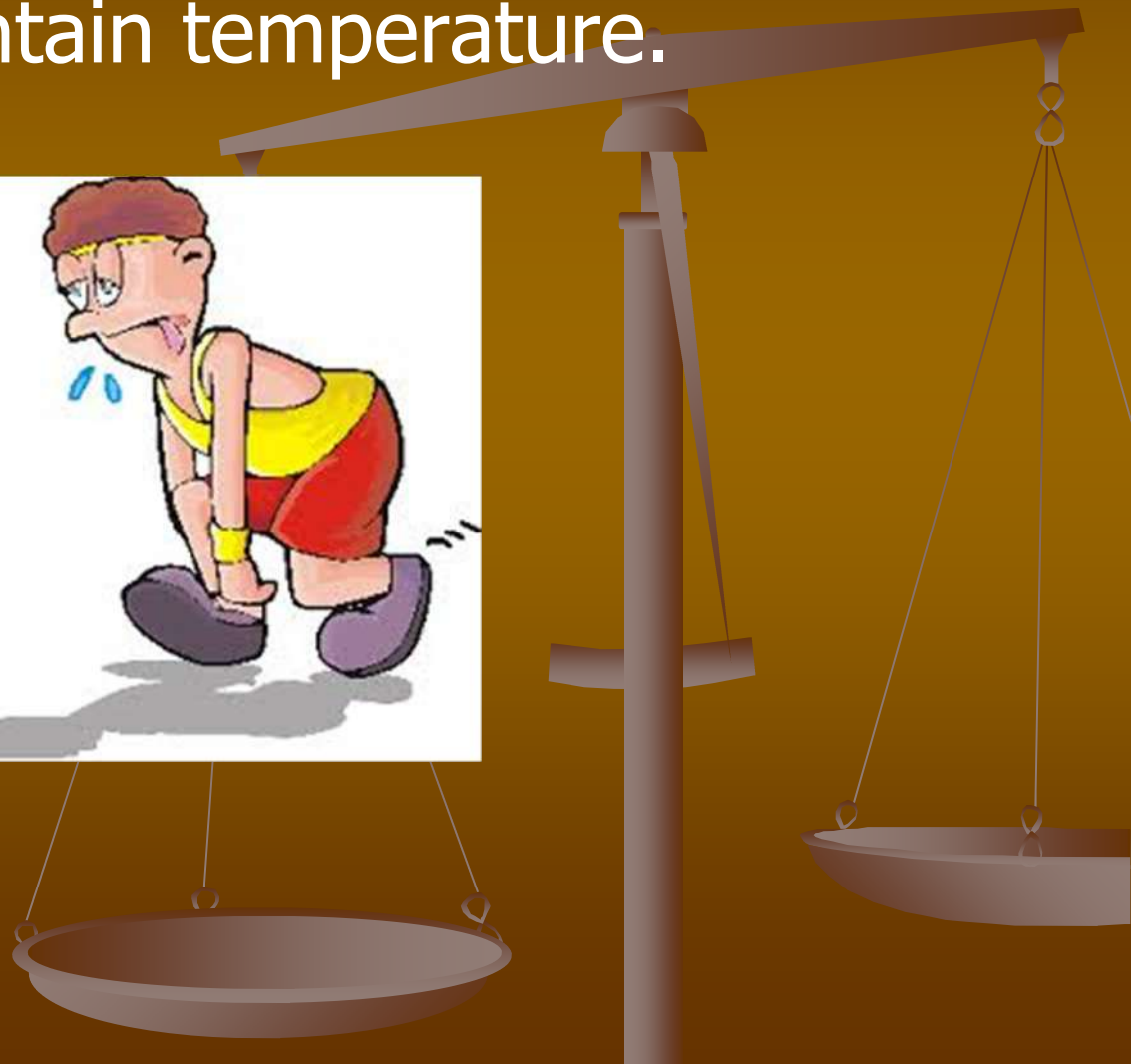
Responds to Stimuli

- Reactions to internal and external stimuli.



Maintains Homeostasis

Perspiring to maintain temperature.



Adaptations Evolve Over Time

- Tropical Orchids have adapted to life in a soil-less environment.



Requires Energy

- Chemical energy either from food or sunlight
- Organisms either take in food or make their own.

