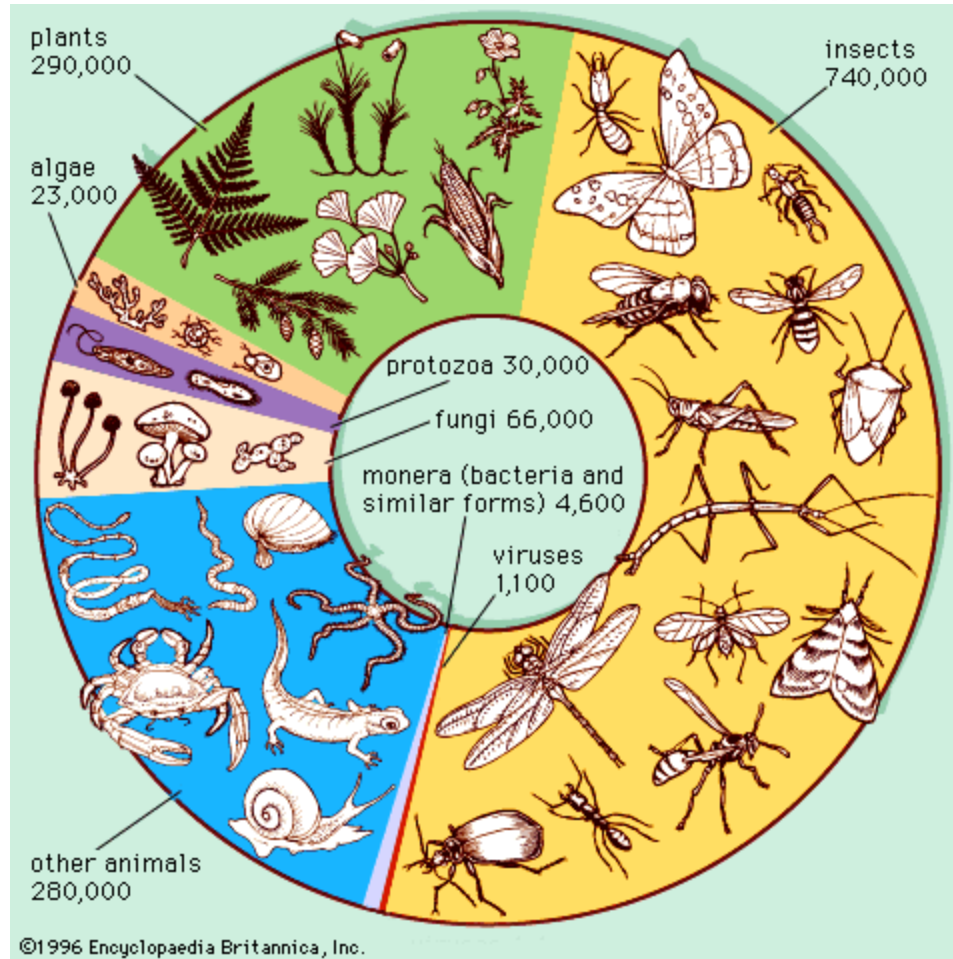


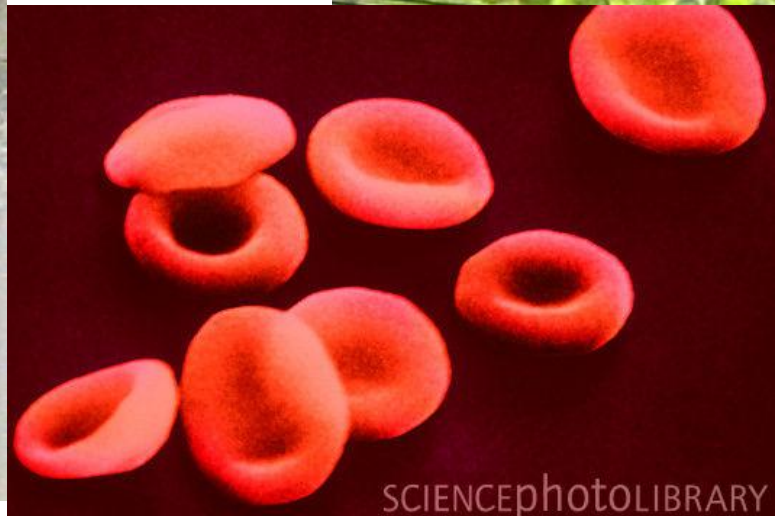
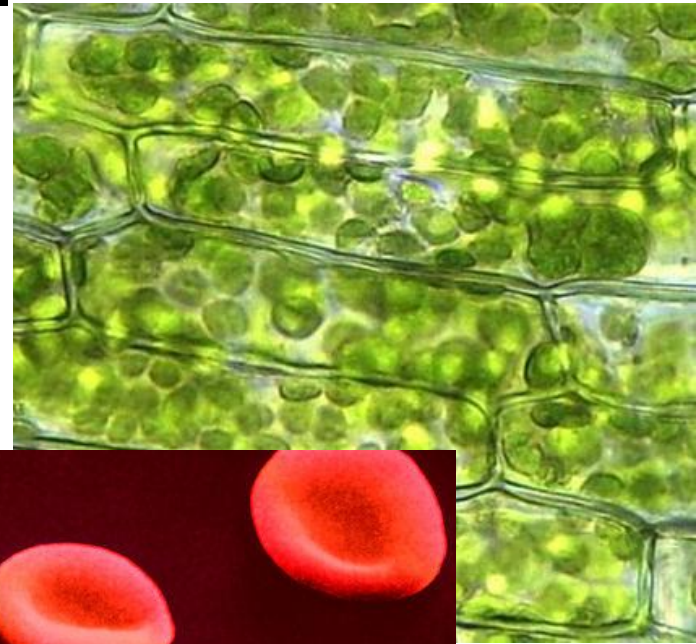
Characteristics of Living Things



J. Mitchell
August 2012

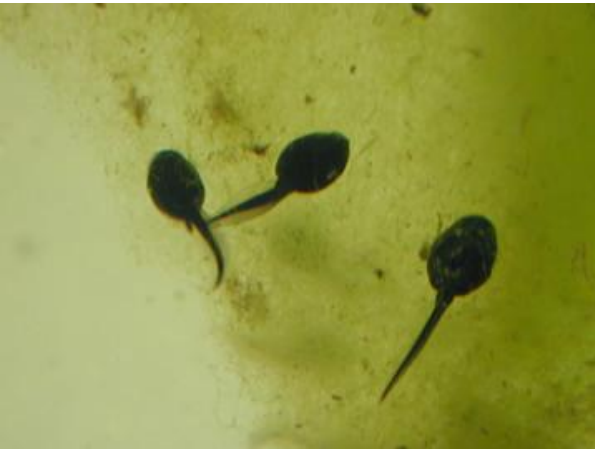
1. Living things are made up of cells.

- A cell is the smallest unit of an organism that can be considered alive.
- One or many cells.



2. Living things *grow* and *develop*.

- Growth – increase in number and size of cells
- Development – cell differentiation, organ development, aging, and death.



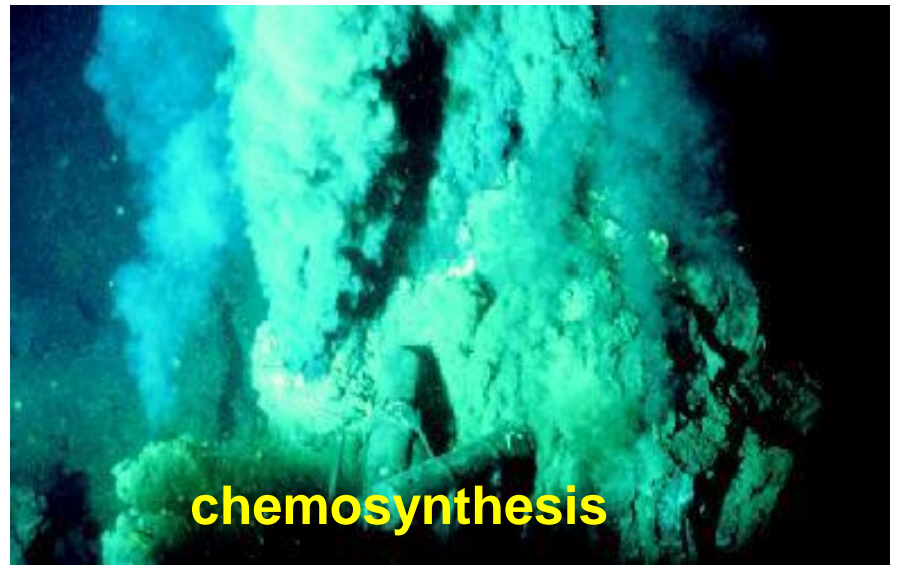
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3. Living things obtain and use energy

- Energy can come from materials, sunlight, or chemicals.
- It is used for maintenance and growth.



photosynthesis



chemosynthesis

4. Living things reproduce

- Living things produce more living things.
- Sexual reproduction = 2 parents
- Asexual reproduction = 1 parent



5. Living things respond to their environment

- Organisms detect and respond to stimuli** from their environment.
 - Stimulus is a signal to which an organism responds, like sunlight or a rustling in the nearby grass...



6. Living things are based on the same genetic code

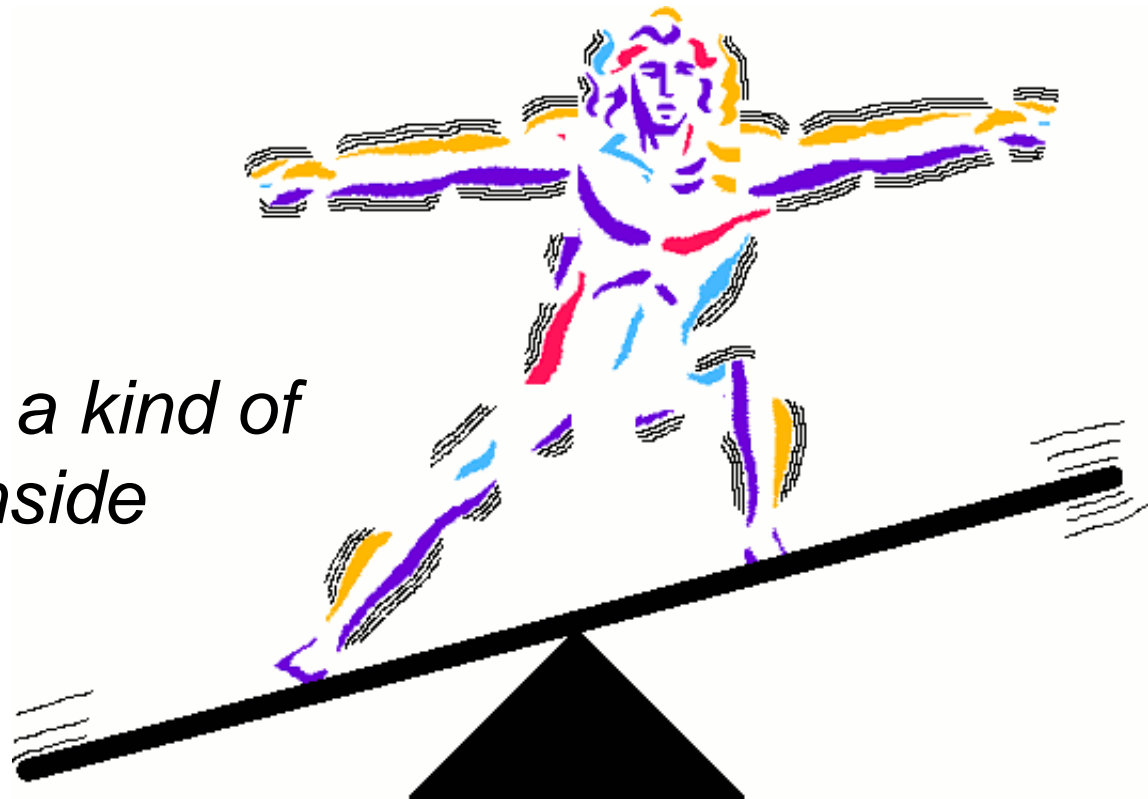
- Organisms resemble their parents because they inherit their traits.
- Genetic code = DNA or RNA



7. Living things maintain a stable internal environment (homeostasis)

- Organisms need to keep conditions (like temperature, energy, pH, water levels...) inside their bodies constant, this is called homeostasis.

Homeostasis is a kind of balancing act inside organisms



8. As a group, living things change over time.

- Over many generations, species (*groups of organisms*) change as a result of mutations or natural selection.

