



Characteristics of Life

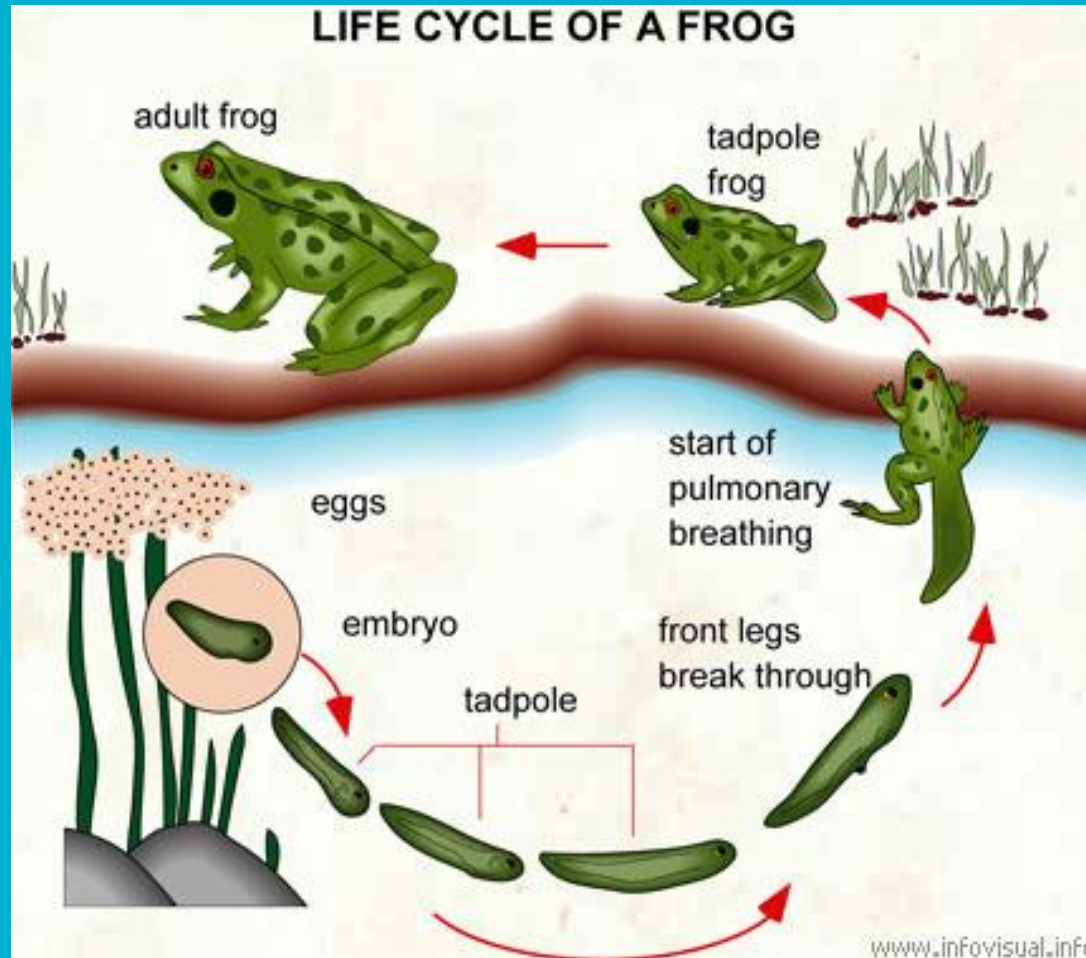
1. Respond to environment

- The change that an organism reacts or responds to is called a **stimulus**.
- Mimosa leaf
plantsinmotion.bio.indiana.edu

2. Grow and Change (develop)

- Growth - single-celled organism gets larger.
- Growth- multi-celled organisms add more cells.
- Develop- living things change as they grow.
Organisms pass through different stages as they grow.
- Metamorphosis is when the development of an organism includes a change of body shape.

LIFE CYCLE OF A FROG



http://www.infovisual.info/02/029_en.html

3. Reproduction

- The act of producing offspring.
 - Asexual - one parent produce offspring.
 - Sexual - two parents produce offspring.
- Binary Fission



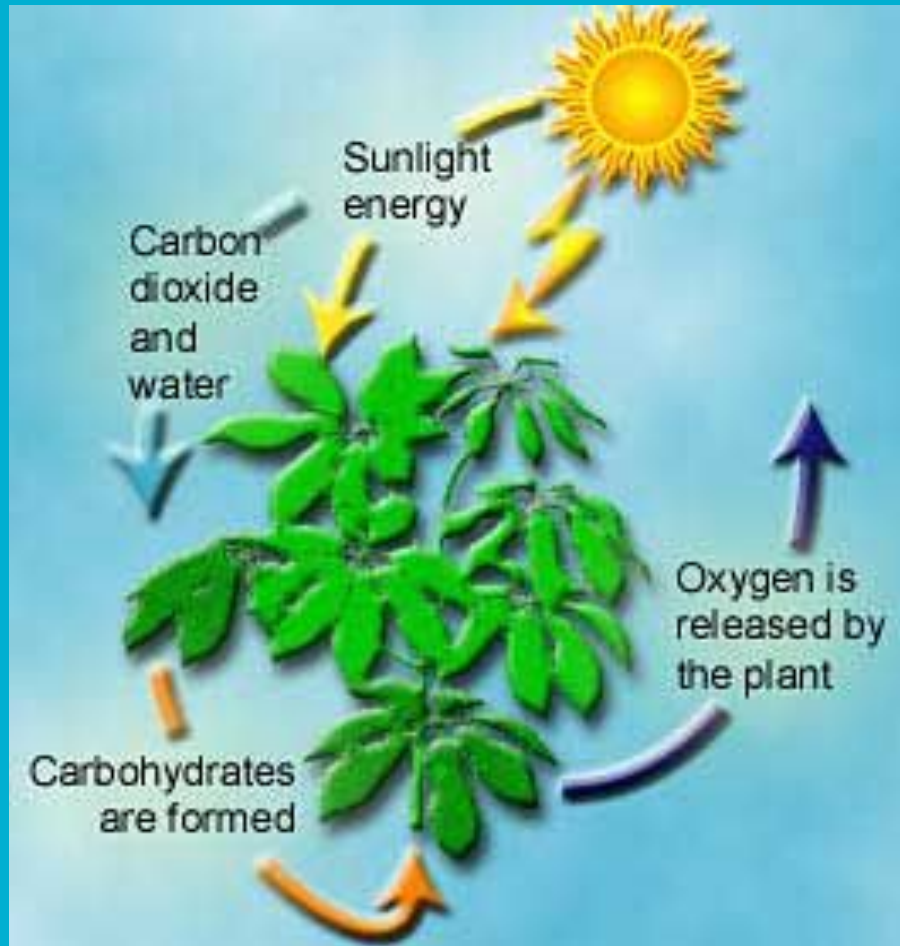
<http://www.flickr.com/photos/jayjayc/76115536/>

4. Have Complex Chemistry

- Living things use energy to power the chemical reactions that break down food, move things in and out of the cell, move, grow, reproduce, and much more.

Examples of
complex chemistry

Photosynthesis



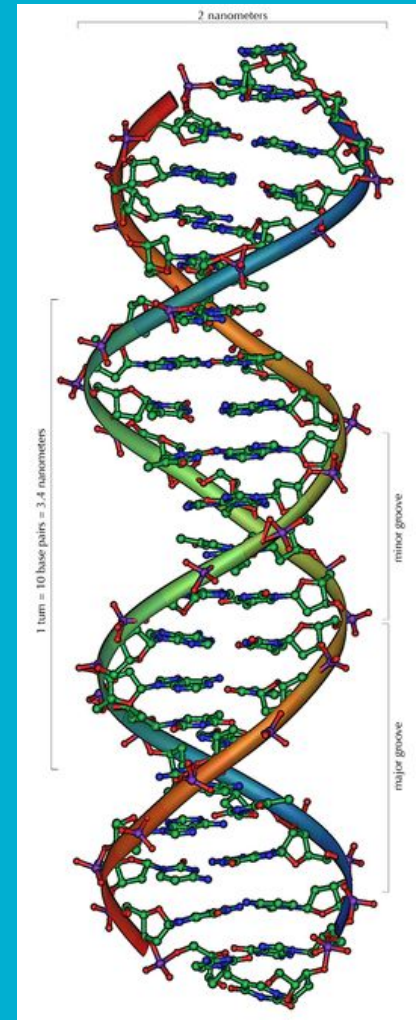
http://athene.as.arizona.edu/~lclose/teaching/a202/Photosynthesis_20in_20a_20Plant.jpg



http://www.adinstruments.com/applications/images/cell_respiration.jpg

4. Living Things Have DNA

- [DNA Video](#)
- DNA provides instruction for making proteins.
- The passing of DNA to offspring is called heredity.



5. Homeostasis

- Living things need to **respond** to their internal environment to maintain a stable state.



<http://www.flickr.com/photos/jayjay/76115536/>



<http://www.terradaily.com/images/shiver-cold-person-sm.jpg>

6. Living Things Have Cells

Cell -the smallest part of a living thing.

- Unicellular (Single celled)- an organism made of one cell
- Multicellular - We are multicellular and each cell has its own function

**An adult human has over 100 trillion cell!*

Single Cell



Multicellular

