

Cells• Cell Theory:

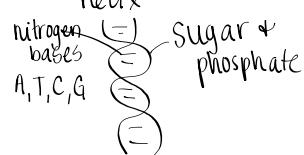
1. The cell is the most basic unit of life.
2. All organisms are made of cells.
3. all cells come from pre-existing cells

• Cell Types

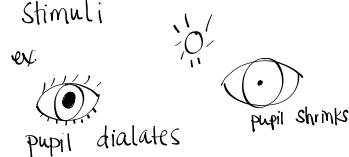
1. prokaryotic: don't have a nucleus & organelles.
2. eukaryotic: have a nucleus & organelles

• DNA (deoxyribonucleic acid)
is found in cells

- stores genetic information
- shaped like a double helix

Responds to the environment

- organisms can respond to a stimuli



- ex: predator-prey
- phototropism
- Venus fly trap

Growth & Development

- growth: increasing in size & mass



- Development: transformation in an organism as it grows.

ex:

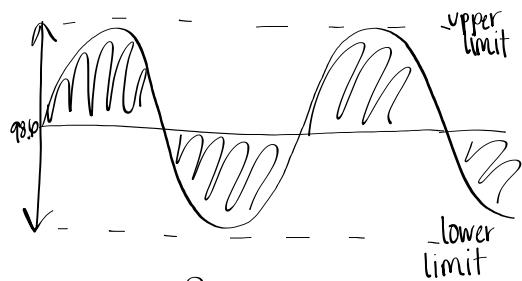


puberty
brain

Homeostasis

- definition: the maintenance of constant internal conditions in an organism.

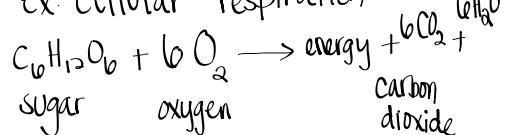
ex: body temp.
blood sugar



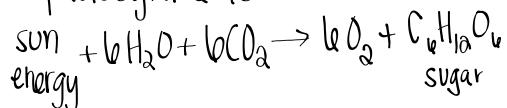
Energy Processing

- energy: the ability to do work or cause a change.
 - metabolism: all the chemical processes that build up or break down materials.
(metabolic processes)

Excellar respiration



photosynthesis



Evolutionary Adaptation

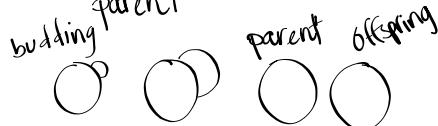
- adaptation: trait that allows an organism to better survive in its environment.
 - evolution: change in living things over time.

Reproduction

- passing genetic information (DNA) to offspring.

• asexual reproduction:

Offspring from a single parent



Sexual reproduction:

2 parents, offspring are a genetic mixture of parents.

- ## 2. The cell cycle

- eukaryotic cells
 - pattern of growth, DNA duplication & division.
(mitosis/meiosis)