

1:2 What is Life?

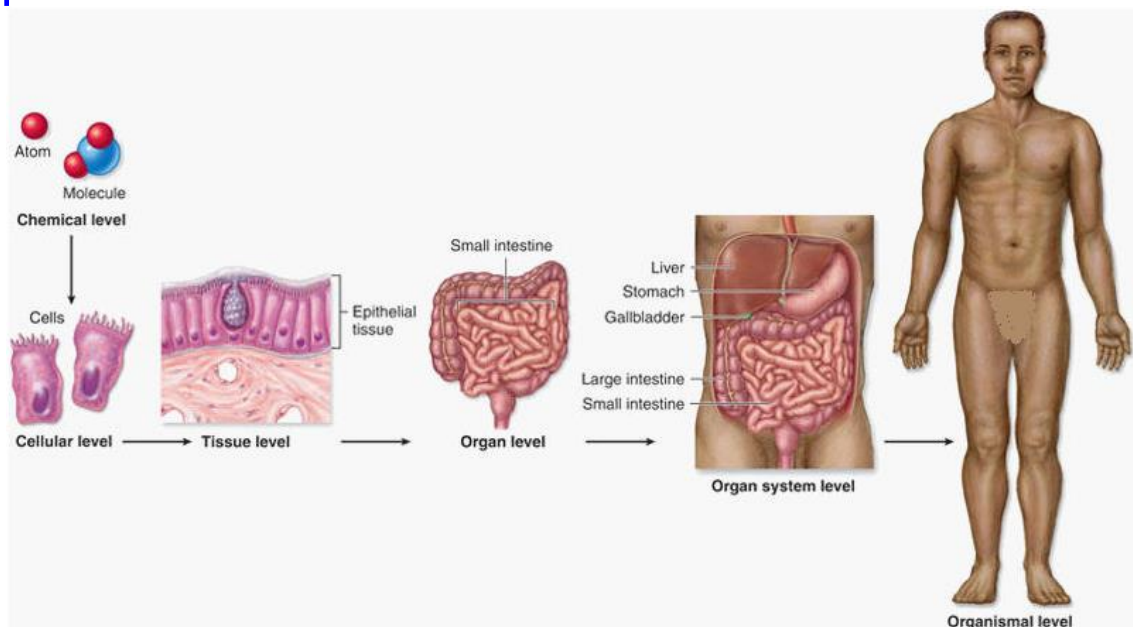
Organisms (living things) must possess ALL these CHARACTERISTICS OF LIFE.

CHARACTERISTICS OF LIFE

1. Living things are ORGANIZED and are made of at least ONE CELL.

ORGANIZATION: orderly structure

CELLS: smallest unit that can perform all of life's processes



2. Living things MAKE MORE living things, transmit hereditary information

REPRODUCTION: the production of offspring

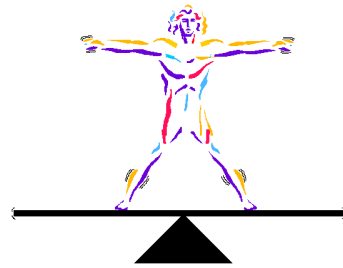


Is reproduction essential to the survival of an individual? Species?

3. Homeostasis

HOMEOSTASIS: the ability of organisms to maintain conditions suitable for life

- Keeping internal conditions the same, even when external conditions change
- Regulation of temperature, water content, uptake of nutrients



What do you think the body consistently maintains?

4. Metabolism/Energy

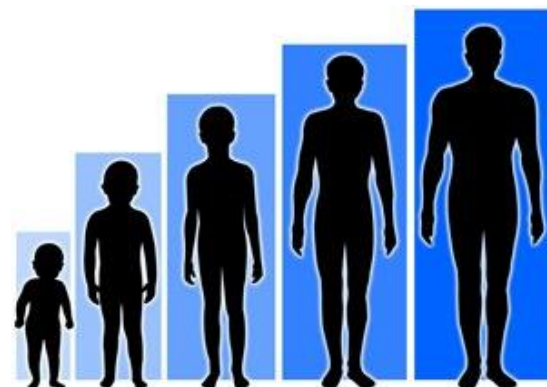
METABOLISM: sum of all chemical reactions that take in and transform energy and materials from the environment

ENERGY: the ability to do work or cause changes

- Energy powers live processes
- Organisms obtain energy from food.

Why have you eaten in the last 12 hours?

5. Growth and Development.



GROWTH: an increase in the amount of living material and the formation of new structures

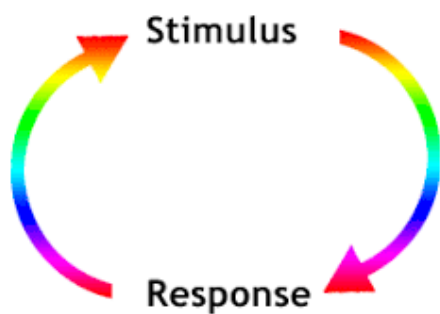
DEVELOPMENT: the physical changes that take place during the life of an organism

6. Evolution

EVOLUTION: the gradual change in characteristics of species overtime

7. Response to Stimuli

ENVIRONMENT: surroundings or external conditions



STIMULUS: any condition in the environment that requires an organism to adjust

RESPONSE: reaction to a stimulus