



Characteristics of Life

Chapter 1.3



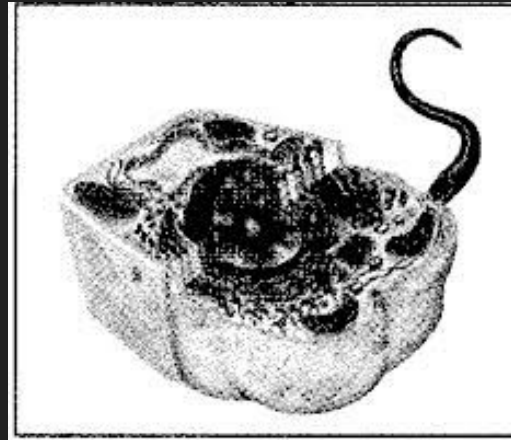
How do know if something is *alive*?

1. Living things are made up of units called cells

Prokaryotic cells



Eukaryotic cells



2. Living things reproduce.

Asexual reproduction

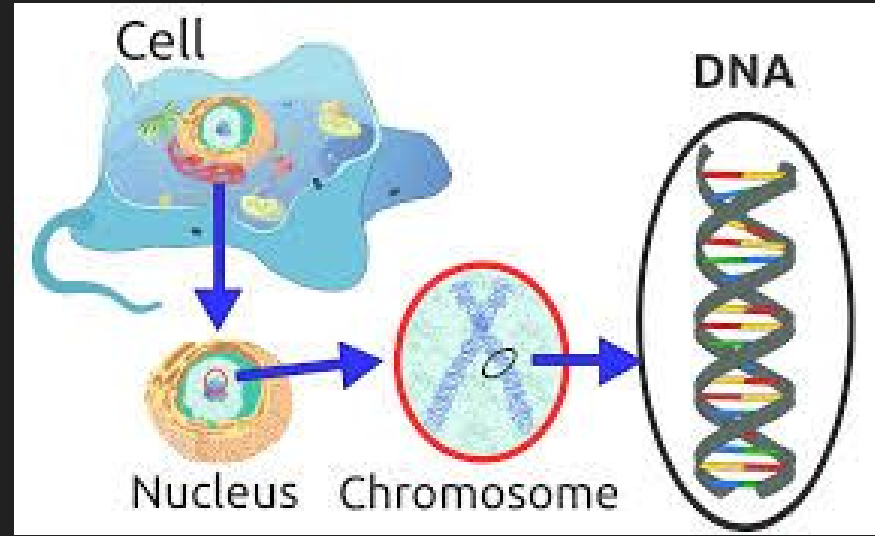


Sexual reproduction



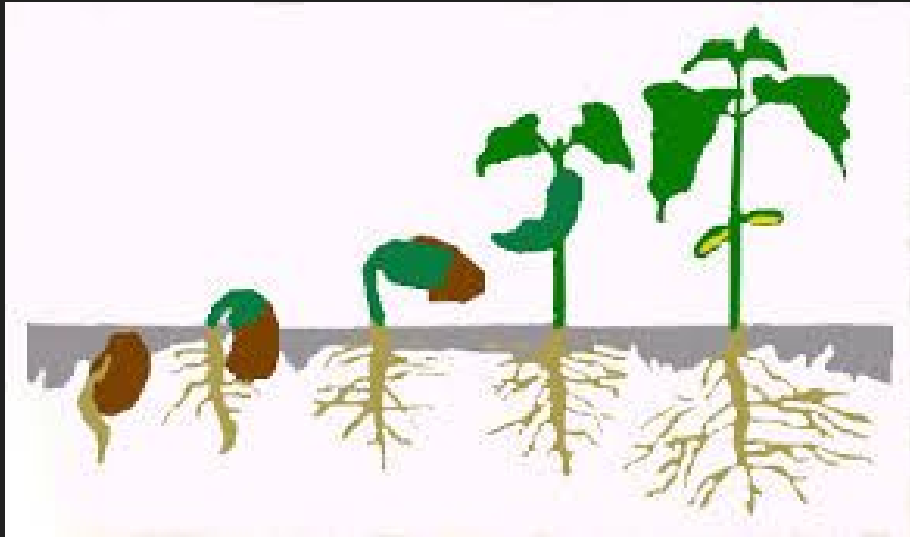
3. Living things are based on a universal genetic code.

DNA (deoxyribonucleic acid)



4. Living things grow and develop.

Cells divide and undergo *differentiation*, or look different from one another and perform different functions.



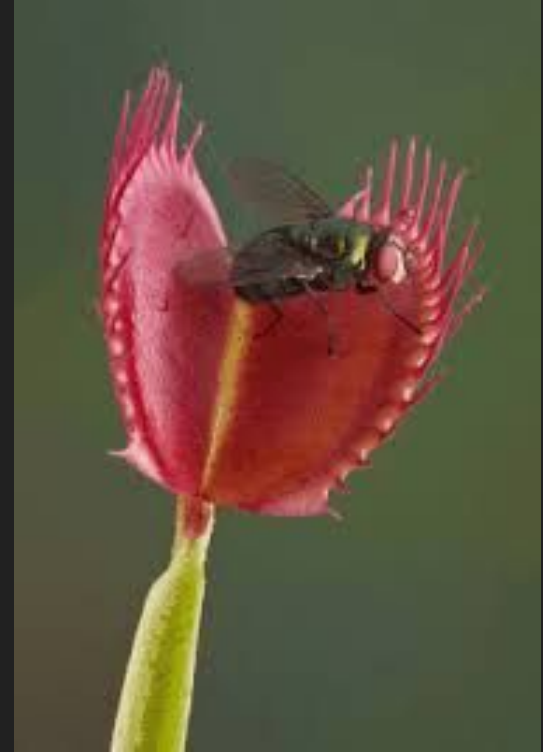
5. Living things obtain energy and use materials.

- Autotrophs: organisms that produce energy from sunlight
- Heterotrophs: organisms that produce energy from consuming other living things



6. Living things respond to their environment.

Organisms detect and respond to stimuli.



7. Living things maintain a stable internal environment

Homeostasis: process by which organisms maintain a relatively stable internal environment.



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

Individual organisms inherit traits from their parents and over many generations populations evolve.

