Characteristics of Living Things

How do you determine a living thing from a non-living thing?.
Task: Complete the Characteristics

grow and **develop**

adapt and **evolve**

Living things are:

reproduce

Example: organism → organ systems → organs → tissue → cell → organelles

Human → digestive system → stomach → tissue → cell → organelles

Living things:

- Asexual reproduction: one parent, offspring are identical
- Sexual reproduction: two parents, offspring are different (genetically)

Living things:

- Grow…get larger
- Develop…structural change (puberty, life cycles of insects/frogs)

respond to their surroundings

Living things:

- Response to stimulus
- Homeostasis: An organism *maintains* and keeps the same conditions in order to survive.
- Example: A person shivers (response) when they're cold (stimulus) to *maintain* the constant body temperature needed to stay alive.
- Example: A person sweats (response) when they're hot (stimulus) to maintain the constant body temperature needed to stay alive.
- Example: A plant grows (response) toward sunlight (stimulus) in order to get energy to stay alive.

Living things require:

- Autotroph: makes it's own energy, like plants doing photosynthesis
- Heterotroph: has to consume or eat things to get energy

Living things:

- Adapt: Anything that enables an organism to survive.
- Evolve: Changes in characteristics of an entire species over a long, long, long time.

energy

organized and made of **cells**