**The 7 Characteristics of Life Notes:**

**1. Composed of Cells:**

“fancy characteristics that make them more capable”

* Single-cell organisms: have everything they need to be self-sufficient.
* In multicellular organisms, specialization increases until some cells do only certain things.

**2. Different** **Levels of Organization:**

* Both molecular and cellular organization.
* Living things must be able to organize simple substances into complex ones.
* Living things organize cells at several levels:

Tissue

Organ

Organ system

Organism

**3. Living Things Use Energy:**

* Living things take in energy and use it for maintenance and growth.

**4. Living Things Respond To Their Environment:**

* Living things will make changes in response to a stimulus in their environment.
* A behavior is a complex set of responses.

**5. Living Things Grow:**

* Cell division - the orderly formation of new cells.
* Cell enlargement - the increase in size of a cell. Cells grow to a certain size and then divide.
* An organism gets larger as the number of its cells increases.

**6. Living Things Reproduce:**

* All living things reproduce in one of the following ways:

Asexual reproduction - Producing offspring without the use of gametes.

Sexual reproduction - Producing offspring by the joining of sex cells.

**7. Living Things Adapt To Their Environment:**

* Adaptations are traits giving an organism an advantage in a certain environment.
* Variation of individuals is important for a healthy species.

Summary: