

# WHAT IS LIFE?

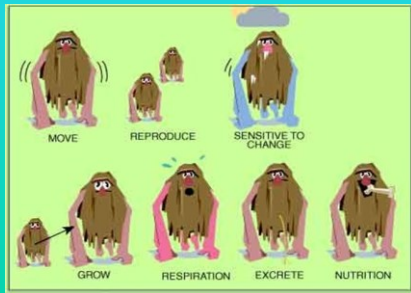


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- All living things are referred to as **organisms**.
- All organisms are made up of chemical substances which are organized into specific structures or functions. The result of this organization is that these chemical substances stop being just molecules and become **living matter**.

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## The 8 Characteristics of Living Things:



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### 1. Made up of one or more cells.

- The cell is the **smallest unit of life**



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### 2. Grows and develops

- Growth results in mass & development results in different abilities thus a definite **body form & size range**



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### 3. Reproduces

- Organisms reproduce & pass along traits from 1 **generation** to another.
- sexual reproduction
  - DNA from two different parents
- asexual reproduction
  - single parent (cloning, budding)



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#### 4. Responds to stimuli

- Reactions to internal and external stimuli are called **responses**.



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#### 5. Requires energy

- All organisms have energy flow (ingest, digest, respire).
- This is referred to as **metabolism**.



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#### 6. Maintains homeostasis

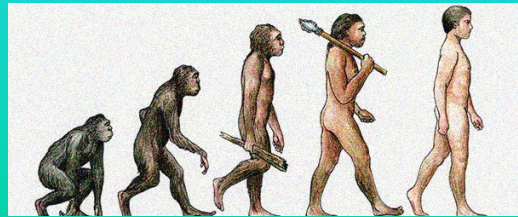
- All organisms keep internal conditions **stable** using various processes to maintain balance. E.g. temperature



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#### 7. Adapt and evolve over time

- Adaptations are **inherited changes** that occur over time to help the species survive.



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#### 8. Has a definite life span

- Each organized structure in an organism has a specific **function**. These structures eventually wear out.



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