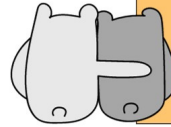
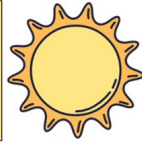


Chapter 1: Living Things

LIVING THINGS

Plants need sunlight to grow.



All living things need love and care.



All living things need water to live.

Living things need a home or a shelter to live in.



Living things need food to stay alive.



Introduction:

In this chapter, we will explore the fascinating world of living things. Living things are everywhere around us, and they exhibit unique characteristics that set them apart from non-living things. Let's delve into the key characteristics that define living organisms.

Characteristics of Living Things:

1. Cellular Structure:

- Living things are composed of cells, the basic structural and functional units of life.
- Some living organisms, like bacteria, are unicellular (made up of a single cell), while others, like plants and animals, are multicellular (made up of many cells).

2. Organization:

- Living things have a high degree of organization in their structure, with cells organized into tissues, tissues into organs, and organs into organ systems.
- This organized structure allows living organisms to carry out complex functions.

3. Growth:

- Living things grow by increasing in size or by developing new structures.

- Growth is often accompanied by an increase in the number of cells through cell division.

4. Reproduction:

- Living things reproduce to ensure the continuation of their species.
- Reproduction can be sexual, involving two parents, or asexual, involving a single parent.

5. Response to Stimuli:

- Living organisms respond to stimuli from their environment.
- Stimuli can be internal or external, and responses may include movement, changes in growth, or alterations in metabolic activities.

6. Metabolism:

- Living things engage in metabolic activities, which include processes like digestion, respiration, and excretion.
- Metabolism involves the conversion of food into energy for the organism's survival.

7. Homeostasis:

- Living organisms maintain internal stability through a process called homeostasis.
- Homeostasis ensures that the internal conditions of an organism remain within a specific range for optimal functioning.

8. Adaptation:

- Living things possess the ability to adapt to their environment over time.
- Adaptations may be structural, behavioral, or physiological, allowing organisms to survive and thrive in various habitats.



Examples of Living Things:

Plants:

Exhibit characteristics such as cell walls, chlorophyll for photosynthesis, and growth through the formation of new roots, stems, and leaves.

Animals:

Show characteristics like movement, sense organs for responding to the environment, and complex organ systems.

Microorganisms:

Include bacteria, fungi, and protists, which display characteristics such as cellular structure, reproduction, and metabolic activities.

Humans:

Showcase all the characteristics of living things, including a highly organized structure, growth, reproduction, and the ability to adapt to diverse environments.

Conclusion:

Living things are incredibly diverse, ranging from microscopic bacteria to large mammals. Understanding the characteristics that define living organisms helps us appreciate the complexity and beauty of life on Earth. In the next chapters, we will explore specific groups of living things in more detail.