

## 6 Characteristics of All Living Things

### 1. All Living Things:

Are **made of cells**.

- The cells may be very different in structure and function.
- An organism may be composed of one or many cells.
- Each cell contains **DNA** (genetic material)

### 2. All Living Things:

Can **reproduce** organisms of the same type.

- Reproduction is not necessary for the survival of the individual but must occur if the species is to continue.
- There are two types of reproduction – asexual and sexual.
  - Asexual reproduction involves a single individual and is generally a very simple process.
  - Sexual reproduction requires that two cells from different individuals unite to form the first cell of a new individual.

### 3. All Living Things:

Are capable of **growth and change**.

- The growth process for living organisms involves development, aging and eventually death.

### 4. All Living Things:

Obtain and use **energy** from the environment to perform complex chemical activities.

- These activities, the **metabolism** of the organism, include **respiration** and **excretion**

### 5. All Living Things:

Have the ability to **move**

- Some living things can move thousands of kilometers.
- Others (such as a plant bending toward light) may move only millimeters or less.

### 6. All Living Things:

**Respond** to their environment in many ways.

- A response is triggered by something in the environment called a **stimulus**.
- There are many different stimuli - organisms respond to ways that will improve their chances of survival.

# Needs of All Living Things

1. All Living Things Need:

**Water**

2. All Living Things Need:

**Air (O<sub>2</sub> or CO<sub>2</sub>)**

3. All Living Things Need:

**Shelter/a place to live**

4. All Living Things Need:

**Food/Nutrients**

1. Making food (**the Producers**)

a. **by** Photosynthesis

2. Taking in food (**the Consumers**)

a. **Types of Nutrients** (*with my examples*)

1. **Proteins**

a. **meat**

b. **fish**

c. **dairy**

2. **Carbohydrates**

a. **grains**

b. **fruits & veggies**

c. **junk food**

3. **Fats**

a. **butter**

b. **oil**

c. **mayo**

## More Info -FYI

- In order to survive, animals need air, water, food, and shelter, and plants need air, water, nutrients, and light
- An organism's habitat supports its basic needs
- Organisms cause changes to the environment in which they live