



Organization of Living Things

ATOM

1. Are the building blocks of all **MATTER**
2. Correspond to **118 Elements (92 Natural)**
3. An element is composed of **1** type of atom
4. The six important elements of life are:
 - **Hydrogen, Carbon, Oxygen, Nitrogen, Sulfur, Phosphorous**
5. Atoms join together to make **molecules**

Protons (+)
Electrons (-)
Neutrons (0)

Organization of Living Things

ORGANELLE

1. Perform specific functions within **cells**
2. Made up of **large** molecules
3. May perform some but not all **life's functions**

Mitochondria Inner Structure
Inner Membrane
Outer Membrane
Cristae
Matrix
Figure 1

Organization of Living Things

CELL

1. Made up of **organelles**
2. Are the building blocks of all **life**
3. Are both **structural** units and **functional** units of living things
4. Smallest unit that can carry on the **functions** of life
5. A cell that has many special functions to perform is called a highly **specialized** cell

Exhibit the FIVE Characteristics of Life!!!

Organization of Living Things

TISSUE

1. Made up of **cells**
2. A group of similar **cells** that **perform** a common **function**
3. Specialization leads to a **division of labor**

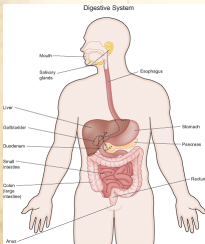
Organization of Living Things

ORGAN

1. Made up of **tissues**
2. A number of tissues that work **together** in order to perform a **common** function

Organization of Living Things

SYSTEM



1. Made up of organs
2. A group of organs that cooperate in a series of functions or reactions
3. In complex organisms, one organ is not enough to carry on all tasks

Organization of Living Things


ORGANISM



1. Made up of organ systems
2. One complete individual living thing
3. Rely on organelles to perform specialized functions

Organization of Living Things


POPULATION



1. Made up of organisms
2. Defined as a group of organisms that interbreed, living in the same area at the same time
3. Of the same species

Organization of Living Things


COMMUNITIES



1. Made up of populations
2. Different species living in the same area and interacting with each other
3. Can be large or small
4. Most common form of interaction is predator or being prey
5. Many populations depend on each other in order to survive

Organization of Living Things

ECOSYSTEM



1. Made up of communities
2. A community of living things and its physical environment
3. Over time, organisms can produce great environmental impacts

Organization of Living Things

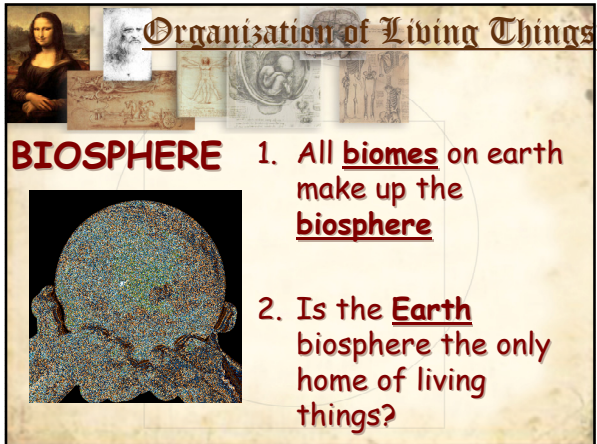
BIOME



1. Made up of ecosystems
2. A large geographic area that has the same types of organisms
3. Generally identified by their organisms or climate or both

Organization of Living Things

BIOSPHERE



1. All biomes on earth make up the biosphere

2. Is the Earth biosphere the only home of living things?