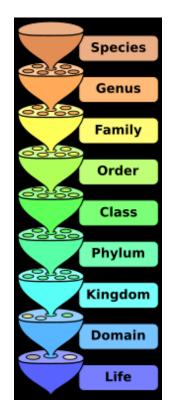
Biological Taxonomy



Taxonomy is the practice and science of classification. In **biological taxonomy**, the classifications are:

• species, genus, family, order, class, phylum, kingdom, and domain.

The chart above shows the relationship of these classifications, and all living things fall into them. This is why "Life" is listed at the bottom of the chart. Each category above life narrows the classification of living things, with domain being the broadest classification and species being the narrowest.

In biological terms, life is a process that distinguishes living organisms from non-living things. Living organisms can grown and reproduce. Some can communicate, and many can adapt to their environment. This concept of life is very general, which is why classifications are used to help identify life forms.

In biological taxonomy, life consists of three domains:

- 1. Arachaea
- 2. Bacteria
- 3. Eukarya

Animals, plants, and fungi belong to the domain **eukarya**. We refer to them as **eukaryotes**. Often, people talk about the **animal kingdom**, which includes mammals, birds, fish, reptiles, and amphibians. The technical classification is Animalia, which is a *kingdom* belonging to the *domain* Eukarya.

The next classification after kingdom is **phylum**. There are over 35 phyla, but the most common ones are:

- Porifera, Mollusca, Cnidaria, Platyhelminthes, Nematoda,
- Annelida, Arthropoda, Echinodermata, Chordata.

These divisions and classifications continue until reaching the category of **species**.

Human beings are in the species of **sapiens**. Have you heard the term *homo sapiens*? Homo sapiens comes from Latin and means "wise human." All species can be traced back down the chart to see their place in the larger group. The classification of a human, for example, would look like this:

- Species: H. Sapien
- Genus: Homo
- Family: Hominidae
- Order: Primates
- Class: Mammalia
- Phylum: Chordata
- Kingdom: Animalia
- Domain: Eukaryota

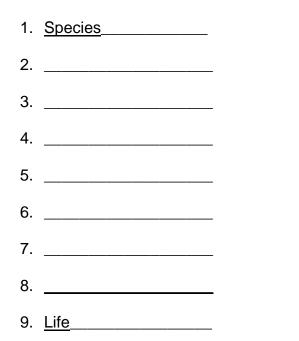
Every living thing is classified under this structure.

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Date_____

Activities

<u>Activity A:</u> Fill in the blanks to show the hierarchy of biological taxonomy. The first and last classifications are done for you.



Activity B: Fill in the blanks.

1. ______ is the practice and science of classification.

- 2. Homo sapien means: ______.
- 3. In biological terms, ______ is a process that distinguishes living organisms from non-living things.

4. Name one of the three domains of life: ______.

Answer Key

Activity A

Species Genus Family Order Class Phylum Kingdom Domain Life

Activity B

- 1. <u>Taxonomy</u> is the practice and science of classification.
- 2. Homo sapien means: <u>wise human</u>.
- 3. In biological terms, <u>life</u> is a process that distinguishes living organisms from non-living things.
- 4. Name one of the three domains of life: <u>Arachaea, Bacteria, or Eukarya</u>.