

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 grow 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**

Name _____

Date _____

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.

Name _____

Date _____

Activities

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

1. Species _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. Life _____

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: _____.

Name _____

Date _____

Answer Key

Activity A

Species

Genus

Family

Order

Class

Phylum

Kingdom

Domain

Life

Activity B

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