

KNOW YOUR NEIGHBORS

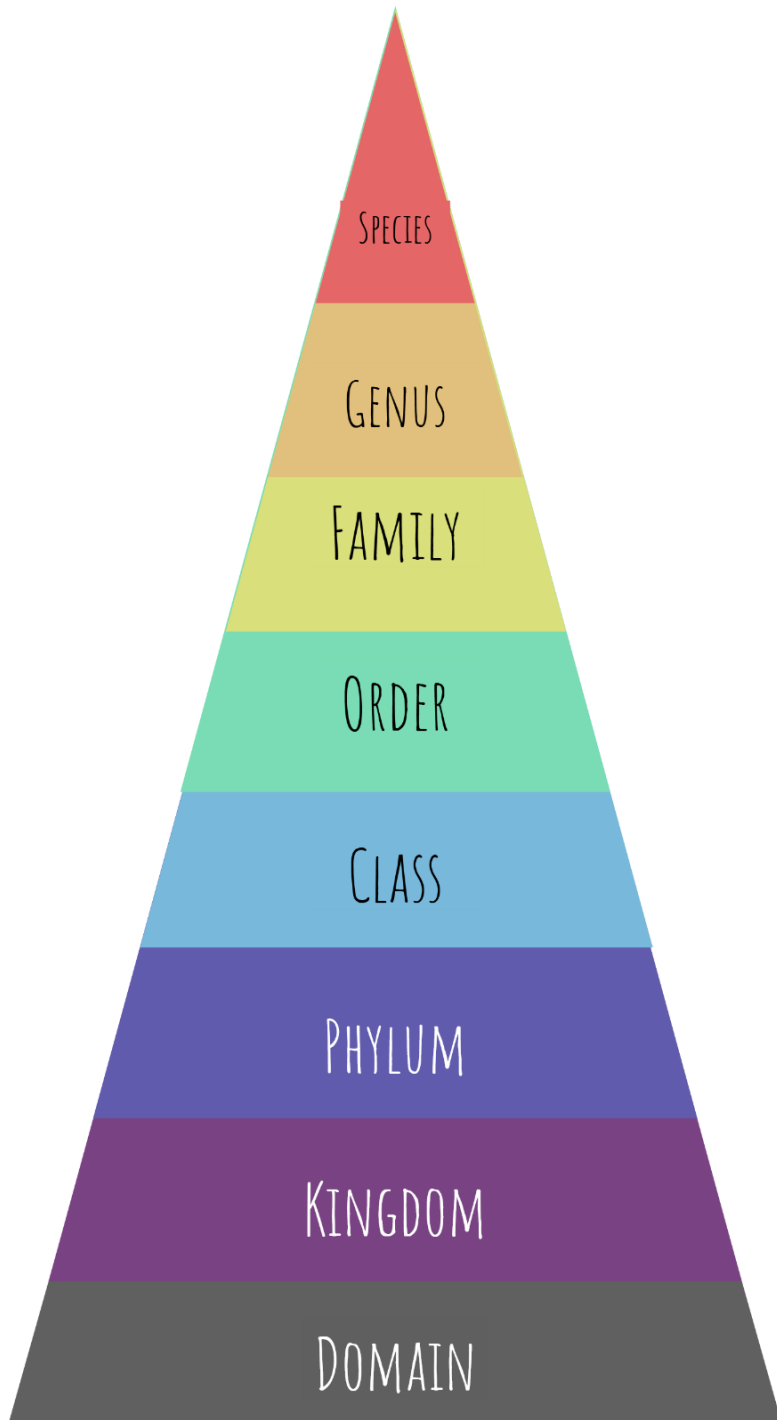
Taxonomy is the system by which we name and classify organisms. It can be roughly translated through its etymology to mean *law of order*. All living things are analyzed and then filed across eight levels (or even more subdivisions) that narrow in focus as they go:

1. **Domain (or Superkingdom):** there has been debate over where to draw a line between domains and how many there are, but animals, plants, fungi and a few others are all in the domain *Eukaryota*, or beings whose cell has a nucleus.
2. **Kingdom:** there is some difference of opinion as to the number of kingdoms as well, but a recent list has seven divisions:
 - 2.1. Bacteria
 - 2.2. Archaea
 - 2.3. Protozoa
 - 2.4. Chromista
 - 2.5. Plantae
 - 2.6. Fungi
 - 2.7. Animalia
3. **Phylum:** Each level down you go, you get more and more divisions; the kingdoms of animalia, plantae, and fungi have about 50 phyla altogether.
4. **Class:** This is where organisms start to split into some recognizable groups like *mammalia*.
5. **Order:** This divides beings into very similar sets, such as *primates*.
6. **Family:** These can appear very Latin and less obvious, but they bring lifeforms yet another step closer together. Chimpanzees are in the family *Hominidae*, also known as the *Great Apes*.
7. **Genus:** The genus makes up the first part of an organism's binomial (two-part) name, with the species forming the second half. Chimps are in the genus *Pan*, which they share with bonobos.
8. **Species:** Together with the genus, this pinpoints one very specific variety of organism. Chimps are *Pan troglodytes*, while bonobos are *Pan paniscus*. Note that the genus is capitalized (and can be abbreviated: *P. troglodyte*), while the species is written in lowercase.

It can be hard to remember the order - a **mnemonic** (a sort of memory trick, such as creating a sentence using each word's first letter to make a silly sentence) might be helpful. Maybe *Didn't Know Plants Could Only Find Green Special?* What sort of mnemonic device can you think of?



CHIMPANZEE TAXONOMY



TROGLODYTE

PAN

HOMINIDAE

PRIMATES

MAMMALIA

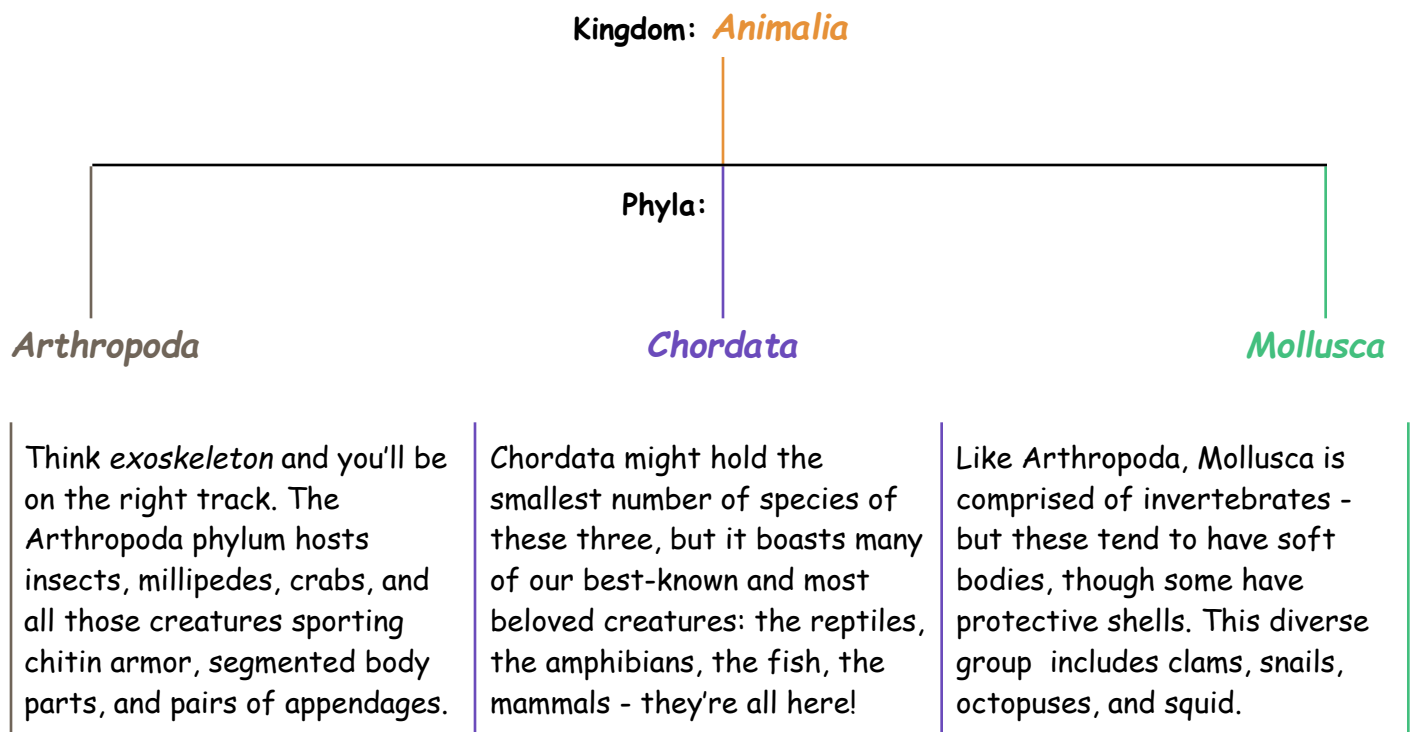
CHORDATA

ANIMALIA

EUKARYOTA

A CLOSER LOOK - ANIMALIA

Global animal species are believed to number upwards of 10 million; around 1 million have been classified at this point. With so many species across so many genera and so many families and so many orders and so on and so on, it can be a bit dizzying. Let's simplify things a bit! For starters, while there are over 30 phyla within the kingdom *Animalia*, just three account for the majority of animals that you will likely be familiar with or trying to name. These are:



Pick an animal you see in your neighborhood to spotlight from one of the three major phyla listed and research its classification. Show off what you've learned on the following page.

Challenge: Can you think of any common backyard animals that don't fit within these three phyla?

Animal: _____

Phylum: _____

MY ANIMAL:

MY ANIMAL'S TAXONOMY:

DOMAIN:

KINGDOM:

PHYLUM:

CLASS:

ORDER:

FAMILY:

GENUS:

SPECIES:

COMMON NAME:

MY MNEMONIC DEVICE:

D
K
P
C
O
F
G
S

