Taxonomy:
science of naming and classifying organisms

Kingdom

Scientific names

Binomial nomenclature:
standard that gives each species a two-part scientific name using Latin Words

Genus:
first part of a scientific name; taxa that includes one or more physically similar species that are assumed to be closely related; upper-case and italicized

Species descriptor:
second part of a scientific name; often refers to characteristic of species, scientist who first described it, or native location; lower-case and italicized

Advantages over common names:
a) unique name for each species (many species have more than one common name),
b) scientists around the world recognize them (no matter what language they speak)

Linnaean classification

How it's organized:
seven levels, called taxa, that are arranged in a nested hierarchy (each level gets more and more specific and is included in the level above it)

The seven taxa:

1. Kingdom
2. Phylum
3. Class
4. Order
5. Family
6. Genus
7. Species

Limitations:
Doesn't account for physical similarities that arose through convergent evolution (physically similar species may not be closely related), does not account for molecular evidence (since this technology wasn't available at the time)