

Why do biologists classify organisms, and how do they do it?

- Life is classified according to similarities in characteristics
- Binomial Nomenclature provides each species with a unique name
- Classification systems become progressively more inclusive
- The atmosphere of early earth was made up of water, methane, ammonia, and carbon dioxide
- The first life arose from simple chemicals

Key Vocabulary	Assignments
Autotroph	1. Read 342-346 Due:
Binomial Nomenclature	a. What are two flaws of the molecular clock model in determining relatedness between species?
Class	b. How are shared derived characters evidence that many species evolved from a few ancestral species?
Domain	<p style="text-align: center;">Evolution and Classification Test: _____</p>
Family	
Genus	
Heterotroph	
Kingdom	
Order	
Phylogeny	
Phylum	
Species	
Taxa	
Taxonomy	

Modern Systems of Classification

<p>The 3 Domain System modern classification system based upon evolution</p> <ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 7. 8. 	<p>The highest taxon is _____</p> <p>Common bacteria are part of the domain _____</p> <p>Other microbes are part of the domain _____</p> <p>All other life is placed in the domain _____</p>	<p>In all modern systems of classification names of species are written in a two part notation called _____.</p> <p>The first part of this two-part name is derived from the _____ and the second is the species individual name.</p> <p>The first letter of the genus is capitalized and the rest of the name is lowercase.</p> <p>When writing names by hand you must _____ them. When typing they are to be in _____. Names are given in _____ because it is a universal language. The goal of scientific names is to avoid the confusion that _____ can cause. Every discovered living and once living organism on the planet has only one scientific name that is universally accepted by all scientists everywhere. Modern classification is based on evolutionary relationships and tries to place all life onto branches of a _____. At the root of this tree will be the common ancestor of all life on Earth.</p>
<p style="text-align: center;">The 5 Kingdom System Older system where all life was placed in one of five kingdoms.</p> <ol style="list-style-type: none"> 1. 2. 3. 4. 5. 		
Plants	Animals	Fungi
Protists	Archaea	Eubacteria