**Classification Unit Study Guide**

**Know…**

Classification

Taxonomy

Aristotle

Carolus Linnaeus

Binomial Nomenclature Taxonomic Hierarchy

Domain

Kingdom

Phylum

Class

Order

Family

Genus

Species

Domain Archaea

Domain Bacteria

Domain Eukarya

Kingdom Archaebacteria Kingdom Eubacteria

Kingdom Protista

Kingdom Fungi

Kingdom Plantae

Kingdom Animalia Morphology

Biological Macromolecules Fossil Record Phylogeny Cladistics Cladogram Dichotomous Key

**Understand…**

The overall purpose of the science of taxonomy.

The limitations of the earliest methods of classification.

The purpose of giving scientific names to organisms.

The rules of binomial nomenclature.

The basis of determining modern taxonomy.

How morphology is used to determine evolutionary relationships.

How biological macromolecules are compared in order to determine evolutionary relationships.

How the fossil record is used to determine evolutionary relationships.

The purpose of a dichotomous key. The general rules of constructing a dichotomous key.

The purpose of a cladogram.

What defines a species.

**Be Able To…**

Compare and contrast the contributions of Aristotle and Linnaeus, in terms of classification.

Identify a correctly written scientific name.

Determine to which genus an organism belongs, based on the scientific name.

List the levels of taxonomic hierarchy from largest to smallest, or smallest to largest.

List the kingdoms that belong to each domain.

Describe the major characteristics of all six kingdoms.

Correctly identify unknown organisms using a dichotomous key.

Analyze and determine evolutionary relationships from a cladogram.