

## **Seven Levels of Classification**

-Kingdom, Phylum, Class, Order, Family, Genus, Species

Least Specific-----Most Specific

-Mnemonic Device: King Philip Came Over From Green Seas

-The more classification levels organisms share, the more they have in common

## **The Six Kingdoms**

### **Archaeobacteria**

-first found in 1983 in a deep spot in the Pacific

-where hot gases and molten rock boiled into ocean from Earth's interior

-also found at hydrothermal vents, on ocean floor, very salty water, hot springs

- single-celled organisms

-prokaryotes- organisms that lack a nucleus

-can be autotrophs- make their own food using photosynthesis or chemosynthesis

-can be heterotrophs- obtain food by consuming other autotrophs or heterotrophs or a variety of foods

### **Eubacteria**

-can be harmful (cause strep throat) or helpful (make cheese & yogurt, produce vitamins in our bodies, recycle nutrients like nitrogen)

-single-celled organisms

-prokaryotes

-autotrophs or heterotrophs

-classified separately from Archaeobacteria because they have a different chemical makeup

### **Protists**

-"Odds and Ends" kingdom- organisms are very different from each other

-can be single or multi celled organisms

-can be autotrophs or heterotrophs

-eukaryotes- organisms with cells that contain a nucleus

-live in moist environments

-examples: slime molds, seaweeds/algae, diatoms

### **Fungi**

-most are multicellular eukaryotes

-a few are single celled

-all are heterotrophs

-most feed on dead or decaying organisms

-examples: mushrooms, molds, mildews, yeast

## **Plants**

- multicellular eukaryotes
- autotrophs
- provide food for almost all heterotrophs on earth
- some produce flowers, some don't
- vary widely in size
- examples: dandelions, tomatoes, moss, giant sequoias

## **Animals**

- multicellular eukaryotes
- heterotrophs
- examples: mammals, birds, insects, fish, coral, sponges