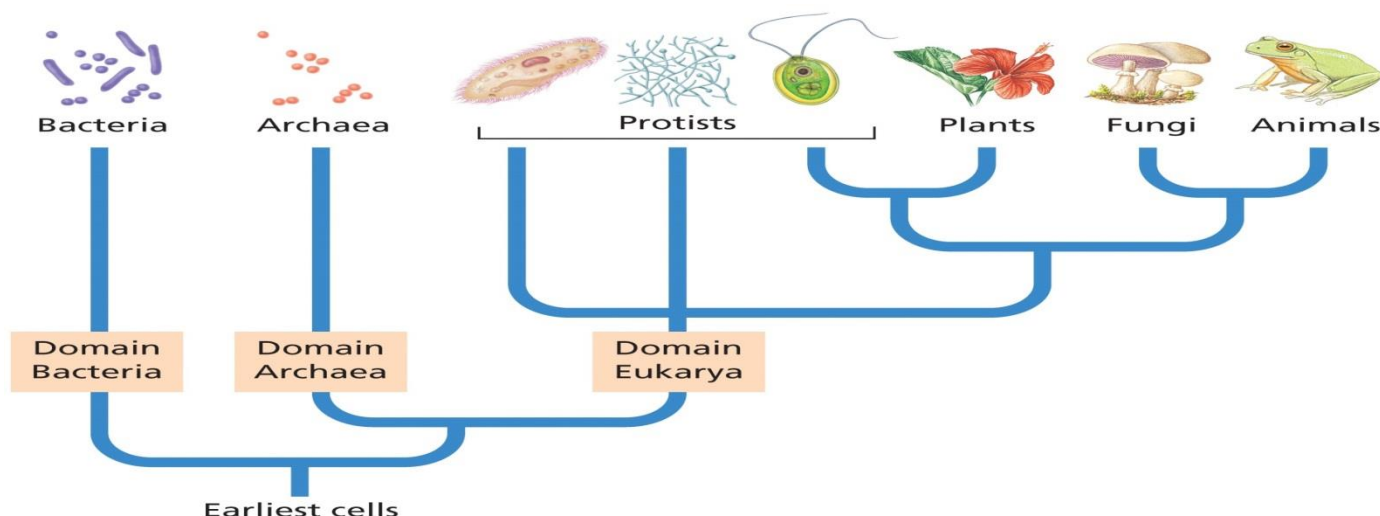


Phylogenetic Diagram of Major Groups of Organisms



The Three-Domain System, continued

- Related groups of organisms will also have similar genetic material and systems of genetic expression.
- Organisms may have a unique system of DNA, RNA, and proteins.
- The following slide shows major characteristics for organisms in each domain and Kingdom.

Kingdom and Domain Characteristics

Domain	Kingdom	Characteristics				Example
		Cell type	Cell structure	Body type	Nutrition	
Bacteria	Eubacteria	Prokaryotic	Cell wall, peptidoglycan	Unicellular	Autotrophic and heterotrophic	Enterobacteria Spirochetes
Archaea	Archaeobacteria	Prokaryotic	Cell wall, no peptidoglycan	Unicellular	Autotrophic and heterotrophic	Methanogens
Eukarya	Protista	Eukaryotic	Mixed	Unicellular and multicellular	Autotrophic and heterotrophic	Amoebas Euglenas Kelps
Eukarya	Fungi	Eukaryotic	Cell wall, chitin	Unicellular and multicellular	Heterotrophic	Yeasts Mushrooms
Eukarya	Plantae	Eukaryotic	Cell wall, cellulose	Multicellular	Autotrophic	Ferns Pine trees
Eukarya	Animalia	Eukaryotic	No cell wall	Multicellular	Heterotrophic	Birds Earthworms