6 Kingdom Classification System Graphic Organizer (chapters 16-19, 23; Pgs. 29-31 EOCT Study Guide)

**Remember that any autotroph carries out photosynthesis (chlorophyll and chloroplasts)	**Archaebacteria** **Domain: Archae**	**Eubacteria** **Domain: Bacteria**	**Protista** **Domain: Eukarya**	**Fungi** **Domain: Eukarya**	**Plantae** **Domain: Eukarya**	**Animalia** **Domain: Eukarya**
Common Characteristics	Extreme conditions	Peptidoglycan cell wall Decomposers and Nitrogen Fixing bacteria	Larger then bacteria "Misfits" resemble others; plants, animals, and fungi	Thick cell wall made of chitin decomposers	Cell wall made of cellulose, chloroplasts for photosynthesis Specialized vascular tissues	Specialized tissues that make up organs, cells with centrioles used for cell division, no cell wall
Common Examples	Methanogens Halophiles Thermophiles	E.Coli Staph Tetanus	Algae (plant-like) Paramecium Amoeba	Yeast, mushrooms, molds, penicillum	Moss, ferns, flowers, grass, trees	Sponges, corals, worms, insects, birds, cats, humans
Cell Type (prokaryote or eukaryote)	Prokaryote	Prokaryote	Eukaryote	Eukaryote	Eukaryote	Eukaryote
Complexity (unicellular, multi-cellular or both)	Unicellular	Unicellular	Almost all unicellular, few examples of multi-cellular and those living in colonies	Both, mostly multi-cellular Yeast is unicellular	Multi-cellular	Multi-cellular
Mode of Nutrition (autotrophic, heterotrophic or both)	Heterotrophic --- Few examples of Chemotrophs that can use chemicals such as sulfur to produce energy	Heterotrophic Some are parasitic, one special example of autotrophic bacteria is the green Cyanobacteria	Fungus- like and animal-like protists are Heterotrophic Plant-like protists are autotrophic	Heterotrophic- Decomposers gain energy from breaking down and absorbing dead tissues from plants and animals	Autotrophic- use solar energy to make glucose which is stored and later broken down by cellular respiration for energy in the form of ATP	Heterotrophic
Type of habitat	Extreme environments that are similar to Earth billions of years ago	Everywhere on Earth= ubiquitous	All aquatic environments	Mostly terrestrial	Both aquatic—Elodea and Terrestrial--Trees	Aquatic and terrestrial
Type of Reproduction (asexual, sexual or both)	Asexual- Clones Archaebacteria are the same as billions of years ago, little to no change	Asexual (binary fission)Eubacteria have the ability to evolve over time and gain resistance to antibiotics by conjugation	Mostly asexual, very few examples of sexual reproduction	Both- yeast are asexual others are capable of both. Asexual=budding	Sexual Asexual (rare)= fragmentation	Sexual Asexual (rare)= fragmentation
Movement	**pili, bacterial flagella**	**Pili, bacterial flagella**	**Cilia, flagella, psuedopods**	**Sessile-no movement**	**sessile**	**Walking, crawl, swim**