# **Living Things & Classification**

#### B-P Ch 1 Section 1 – What is Life?

unicellular organism cell development multicellular stimulus

response reproduce spontaneous generation

autotroph heterotroph homeostasis

- What are the 6 characteristics shared by all living things?
- What are the major chemicals found in cells?
- Do organisms arise from non-living matter? Explain.
- Who were the scientists and what experiments did they conduct to disprove spontaneous generation?
- What are the 4 needs of living things?

#### **Controlled Experiments**

Francesco Redi Louis Pasteur controlled experiment

scientific questions hypothesis variables

controlled variable manipulated variable responding variable observations data repeated trials

conclusion model inference

- What are the steps of a controlled experiment?
- How does DRY-MIX relate to graphing data?

## B-P Ch 1 Section 3 - Classifying Organisms

classification taxonomy Aristotle Carolus Linnaeus binomial nomenclature species genus scientific name vs. common name Charles Darwin evolution field guide

7 levels: kingdom; phylum; class; order; family; genus; species taxonomic key

- Why do scientists classify organisms?
- Identify three scientists made important contributions to classification? What were their contributions?
- What was the naming system for organisms devised by Linnaeus?
- Why use scientific names? How can you recognize a scientific name?
- What are the seven (major) levels in the modern classification system?
- How (on what basis) are organisms classified?
- What are two resources that can be used to help identify organisms?

### B-P Ch 1 Section 4 - The Six Kingdoms

prokaryote eukaryote nucleus

autotroph heterotroph unicellular multicellular

- What are three characteristics used to classify organisms into kingdoms?
- Identify the 6 kingdoms based on their characteristics.

Kingdom	Characteristics
archaebacteria	
eubacteria	
protists	
fungi	
plants	
animals	