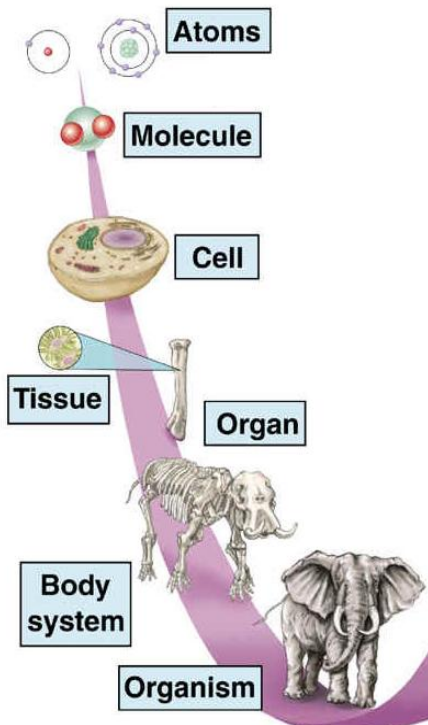


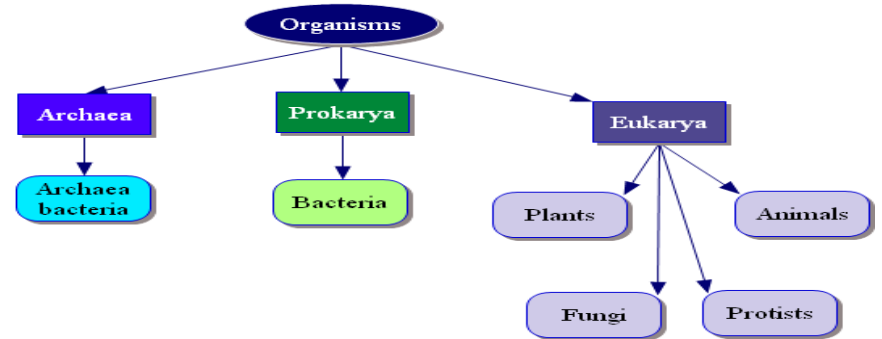


Life Science Reference Guide

Levels of Organization



Classification (Binomial nomenclature: genus, species)



Symbiotic Relationships

Commensalism

Clown fish and Anemone



Parasitism

Dog and Tick



Mutualism

Bee and Flower



Theory of Evolution (Charles Darwin)

Evolution: CHANGE over time

Natural Selection: "Survival of the fittest"
Organisms with traits best suited to their environment are more likely to survive and reproduce

Law of Conservation of Matter and Energy

Matter and energy CANNOT be created or destroyed. The total amount of matter and energy available in the universe is a fixed amount and can never be any more or less.

Experimental Replication vs Repetition

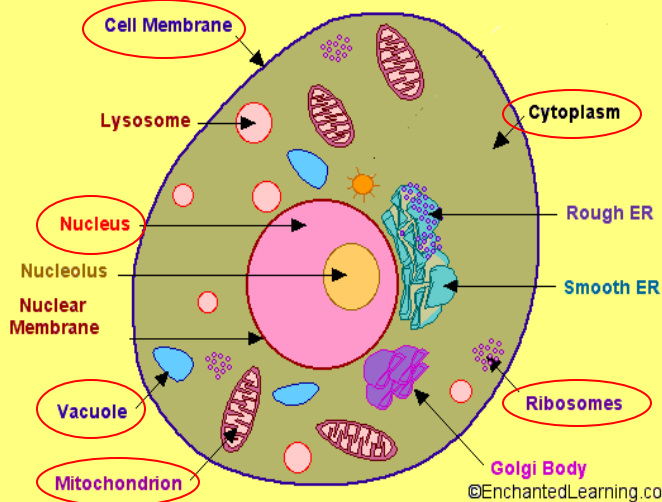
Replication: the reproduction of an experiment by others to confirm findings or ensure accuracy

Repetition: conducting multiple trials during an experiment to ensure accuracy

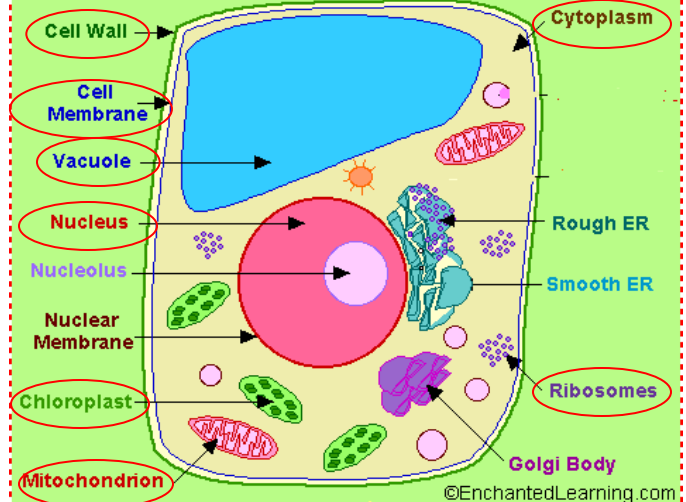
Cells

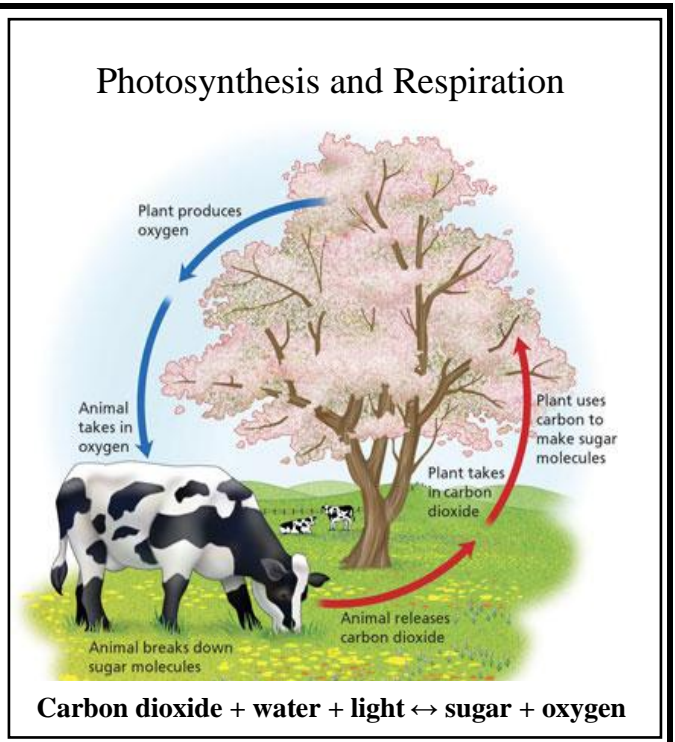
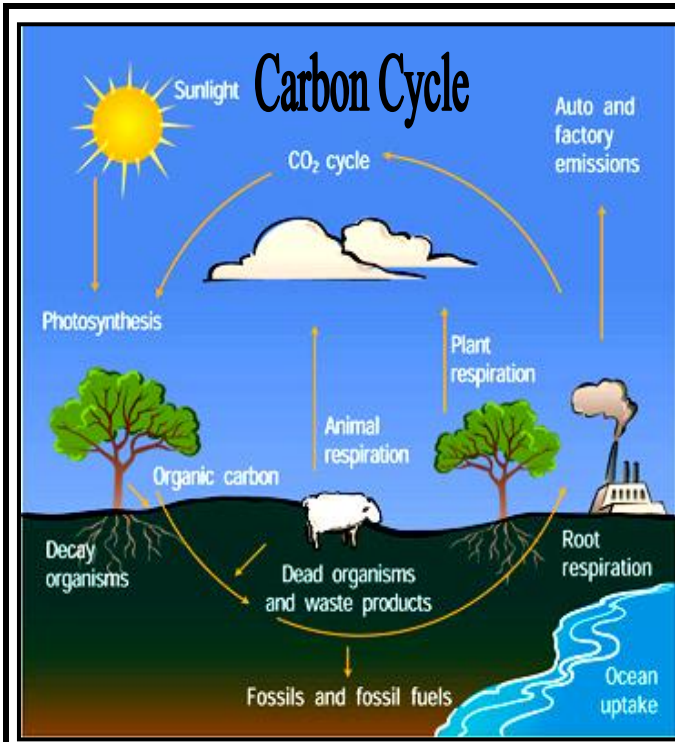
Cell Theory: all organisms are composed of cells, all cells come from pre-existing cells, cells are the basic unit of life

Cross-Section of an Animal Cell



Cross-Section of a Plant Cell





Human Body Systems

Nervous

Immune

Reproductive

Circulatory

Digestive

MusculoSkeletal

Respiratory

Excretory

Genetics

	G	g
G	GG	Gg
g	Gg	gg

Genotype = Gg

Phenotype = Green skin

Offspring = 75% green
25% yellow

Homozygous: GG and gg

Heterozygous: Gg

Experiment vs Investigation

Experiment: A procedure carried out and repeated under controlled conditions to discover, demonstrate, or test a hypothesis.

Investigation: a systematic process that uses data, logic, and reasoning to answer a question or gain understanding

