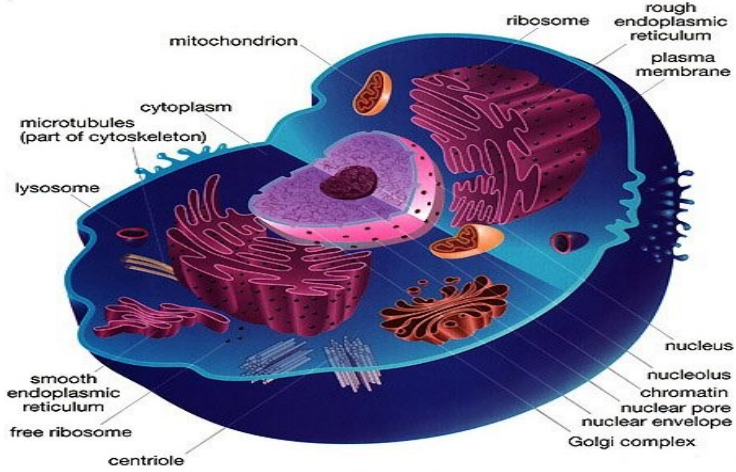
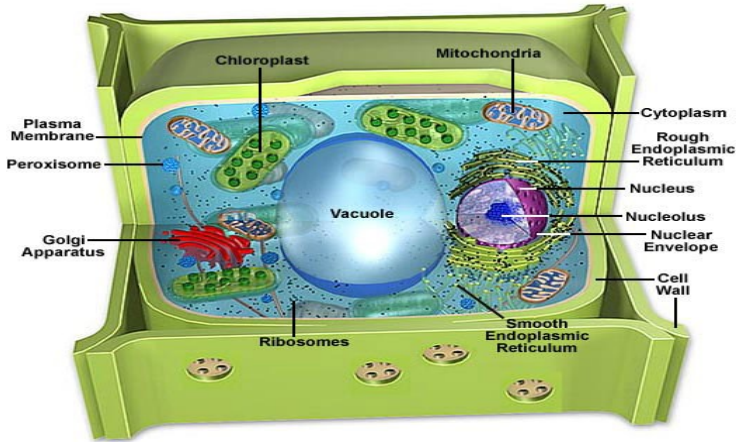


# Reference ♦ BIOLOGY ♦ Information



Cross section of animal cell (top) and plant cell (bottom)

Images from: <http://year12bio.wikispaces.com/2.8+Cells>



$10^n$	Prefix	Symbol	Decimal
$10^{24}$	yotta-	Y	1 000 000 000 000 000 000 000 000
$10^{21}$	zetta-	Z	1 000 000 000 000 000 000 000
$10^{18}$	exa-	E	1 000 000 000 000 000 000
$10^{15}$	peta-	P	1 000 000 000 000 000
$10^{12}$	tera-	T	1 000 000 000 000
$10^9$	giga-	G	1 000 000 000
$10^6$	mega-	M	1 000 000
$10^3$	kilo-	k	1 000
$10^2$	hecto-	h	100
$10^1$	deca-	da	10
$10^0$	(none)	(none)	1
$10^{-1}$	deci-	d	0.1
$10^{-2}$	centi-	c	0.01
$10^{-3}$	milli-	m	0.001
$10^{-6}$	micro-	$\mu$	0.000 001
$10^{-9}$	nano-	n	0.000 000 001
$10^{-12}$	pico-	p	0.000 000 000 001
$10^{-15}$	femto-	f	0.000 000 000 000 001
$10^{-18}$	atto-	a	0.000 000 000 000 000 001
$10^{-21}$	zepto-	z	0.000 000 000 000 000 000 001
$10^{-24}$	yocto-	y	0.000 000 000 000 000 000 000 001

## Six Kingdoms

Eubacteria  
Archaeobacteria  
Protists  
Fungi  
Plants  
Animals

## Levels of Classification

Kingdom  
Phylum  
Class  
Order  
Family  
Genus  
Species

**Diffusion:** the movement of substances across the cell membrane from an area of high concentration to an area of lower concentration

**Osmosis:** the diffusion of water molecules through a selectively permeable membrane from an area of high concentration to an area of lower water concentration

**Facilitated transport** (facilitated diffusion): occurs when a carrier molecule embedded in the cell membrane transports a substance across the membrane by means of diffusion

### Prokaryotes:

Single-celled organisms that lack internal structures surrounded by membranes. They lack a true nucleus.

Examples:

Bacteria  
Archaea

### Eukaryotes:

Single-celled and multi-cellular organisms that have cells containing internal membrane-bound structures. They have a true nucleus containing the cell's DNA

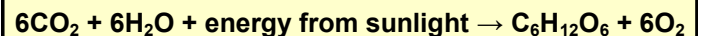
Examples:

Plants  
Animals  
Mushrooms (fungi)  
Amoebas (protists)

### Cellular Respiration



### Photosynthesis



### Some examples of Environmental Factors

#### Biotic

Plants  
Animals  
Bacteria

#### Abiotic

Climate  
Light  
Soil  
Water

**Active Transport:** a process that drives large molecules across the cell membrane from a region of lower concentration to a region of higher concentration

**Endocytosis:** a process in which a cell surrounds and takes in material from its environment

**Exocytosis:** a process by which a cell surrounds and removes materials from inside the cell