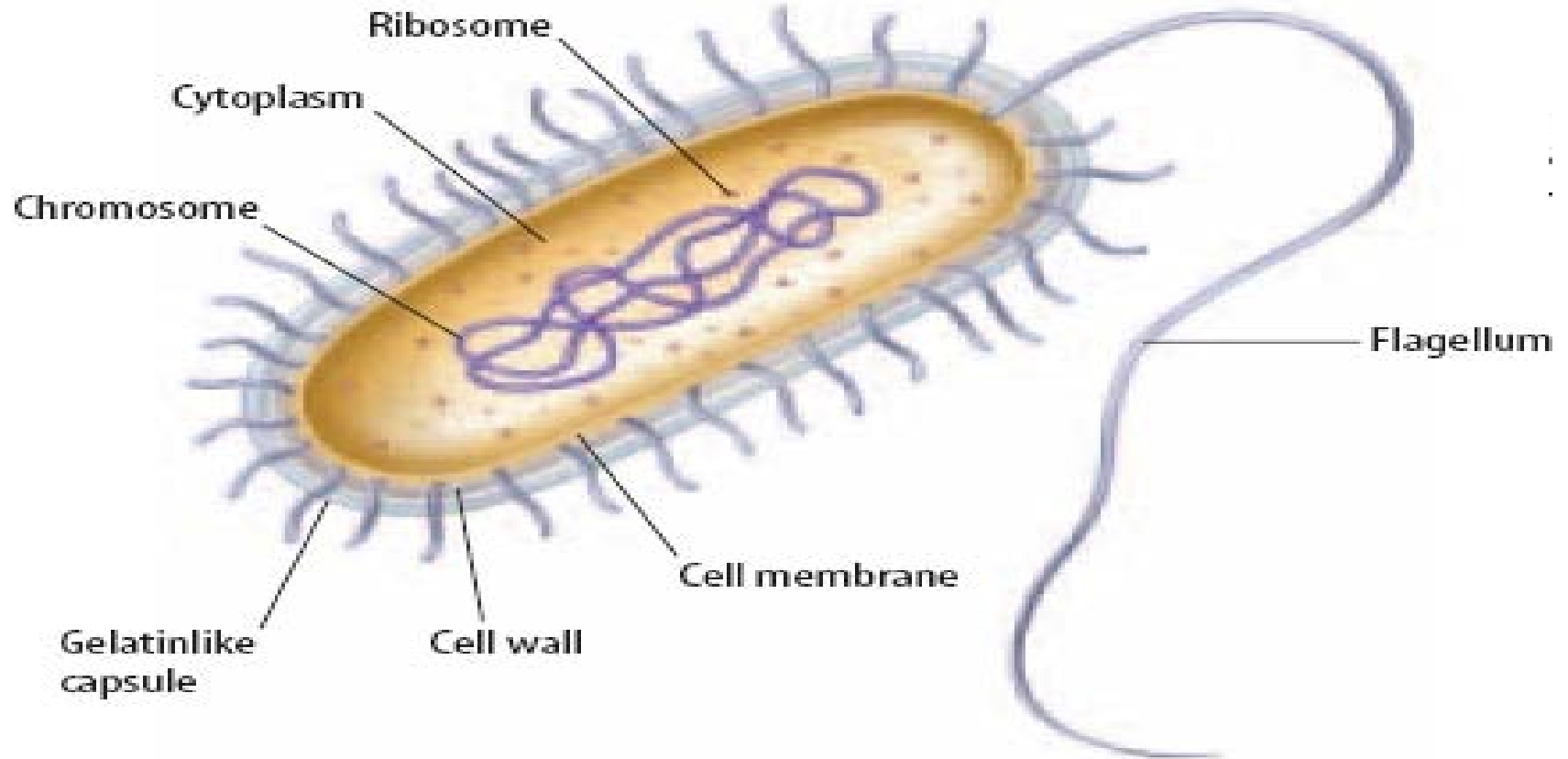


# BIOLOGY VOCABULARY

---

# Prokaryote

- Have DNA and ribosomes, but they have no internal membranes! (They don't have a nucleus)



# Eukaryotic

Have their DNA surrounded by a membrane. (They have a nucleus).

The main components  
of the animal cell

The main components  
of the plant cell

Cytoplasm

Cell membrane

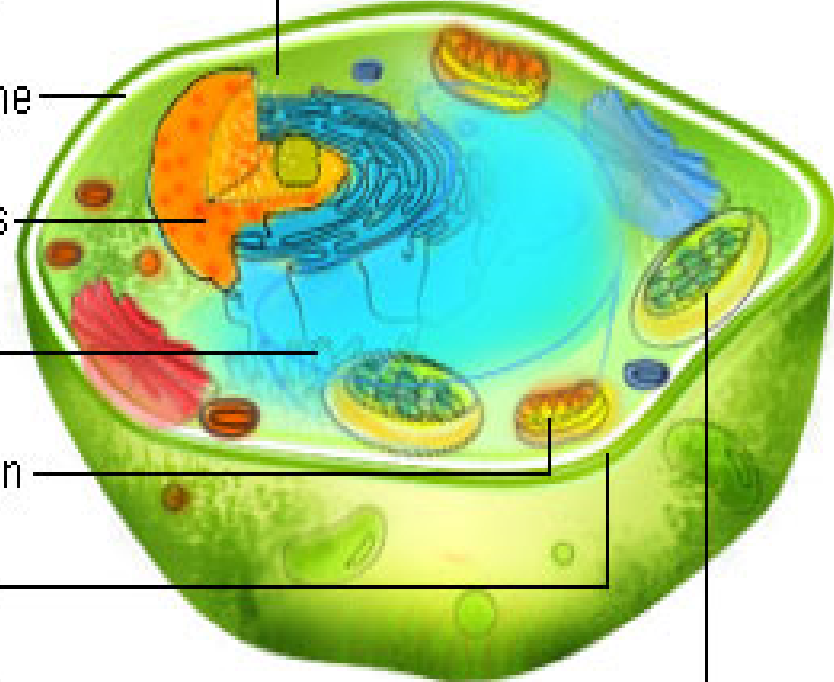
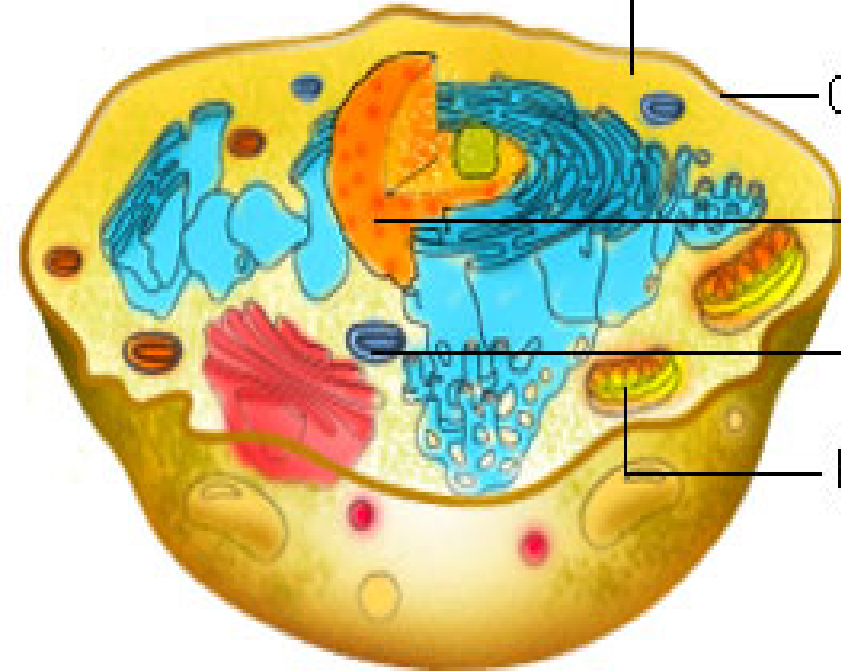
Cell nucleus

Vacuole

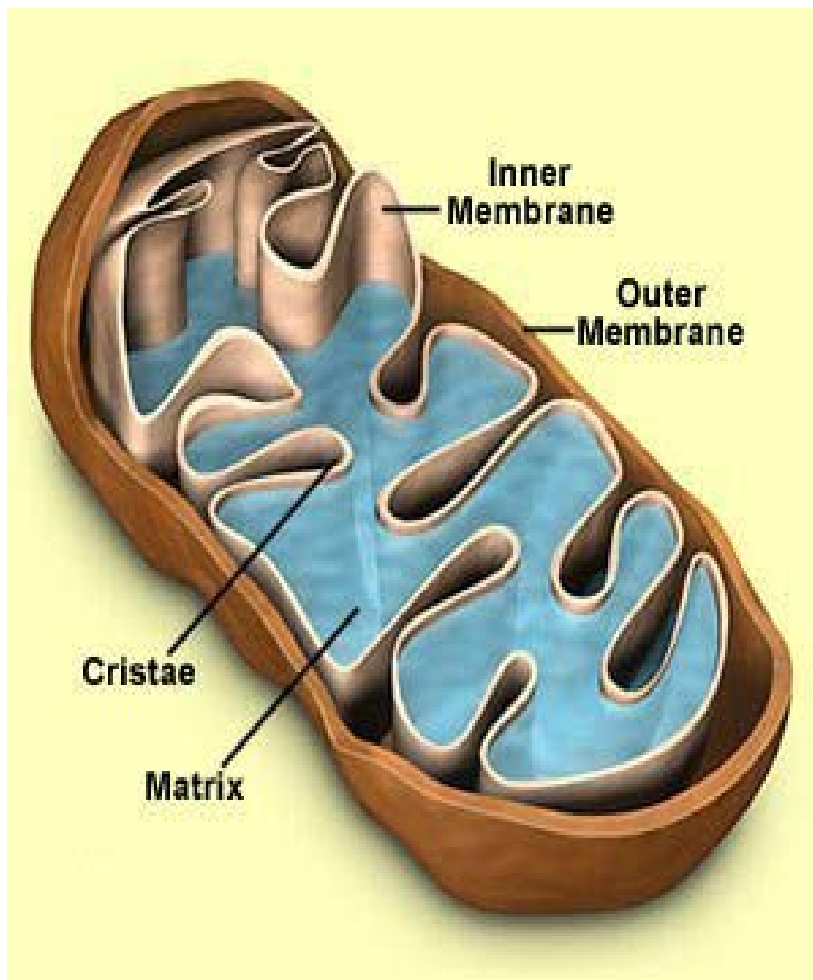
Mitochondrion

Cell wall

Chloroplast



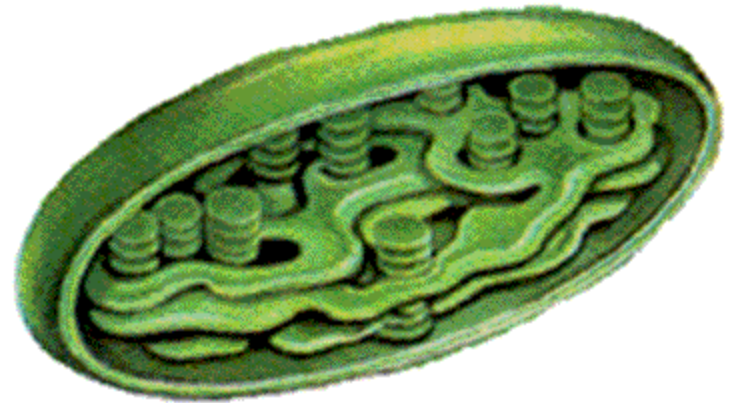
# Mitochondria



- “Powerhouse” of the cell
- Produces energy in the form of ATP
- Site of Aerobic respiration

# Chloroplast

- Site of photosynthesis
- Plant cells ONLY
- Contains the pigment chlorophyll



# CELL TRANSPORT

## Diffusion

Movement from high to low concentration

No energy required

## Osmosis

Movement of water from high to low WATER concentration across a membrane

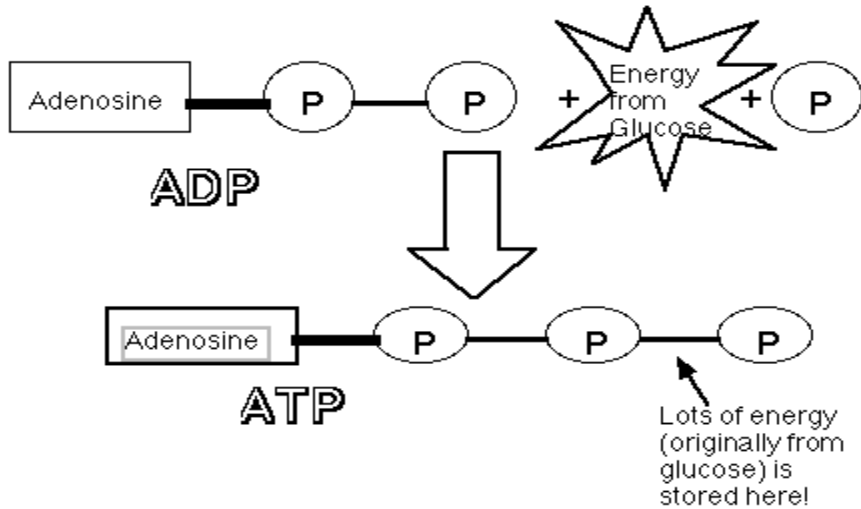
No energy required

## Active Transport

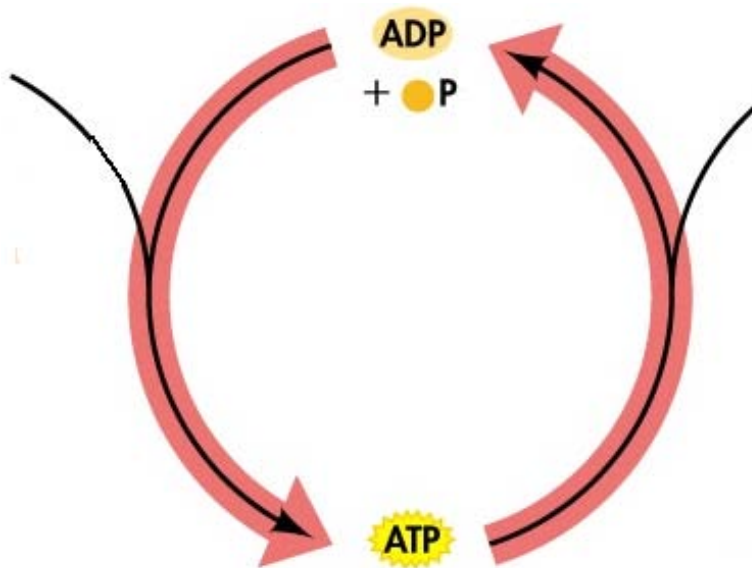
Movement from LOW concentration to HIGH concentration

USES ATP

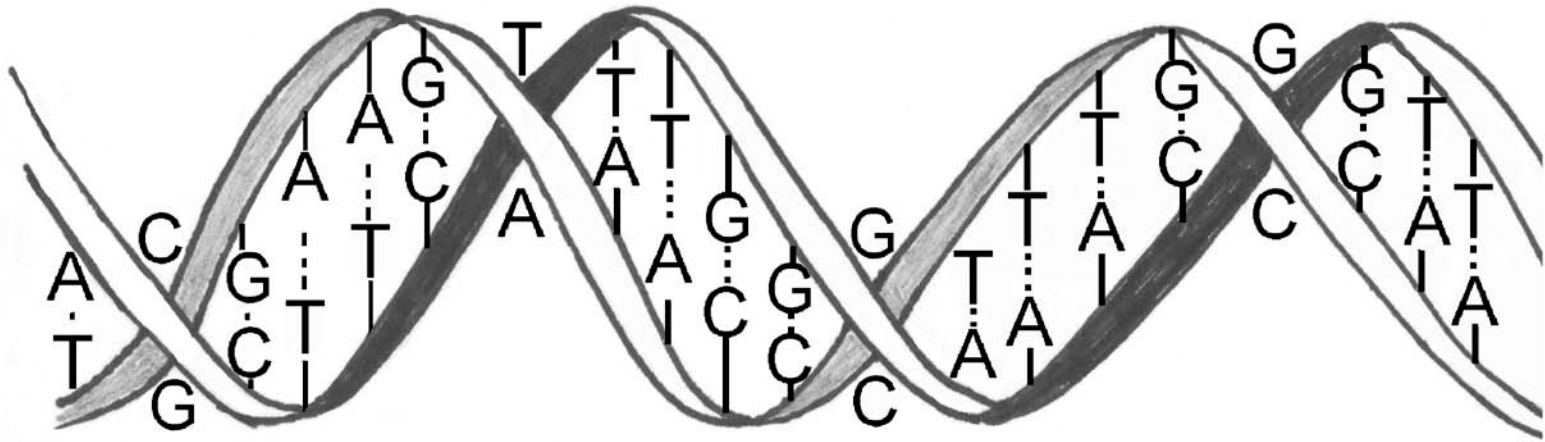
# ATP



- Energy storing molecule
- Can be used for quick energy by the cell



# Base Pair Rule







- In DNA,

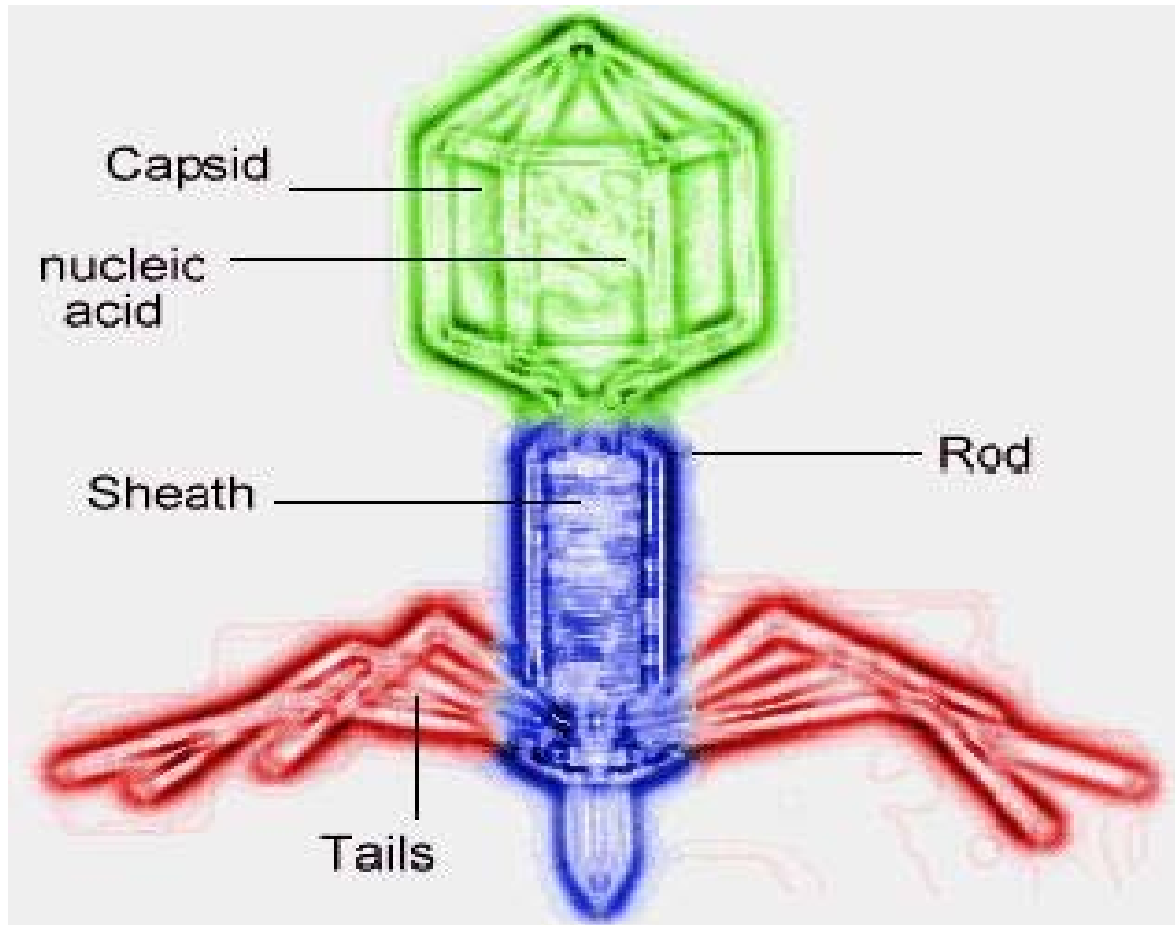
Adenine always pairs with Thymine  
Guanine always pairs with Cytosine



# Punnett Square

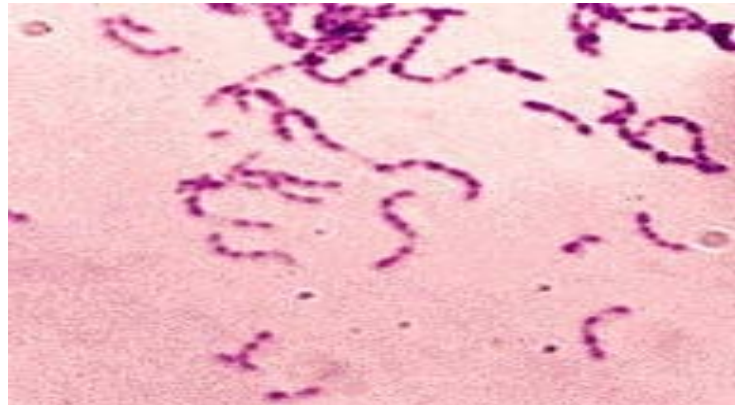
		pollen ♂	
		B	b
pistil ♀	B	 BB	 Bb
	b	 Bb	 bb

# Virus



# BACTERIA

- Can be **killed by antibiotics**
- Examples of disease caused by bacteria is strep throat.



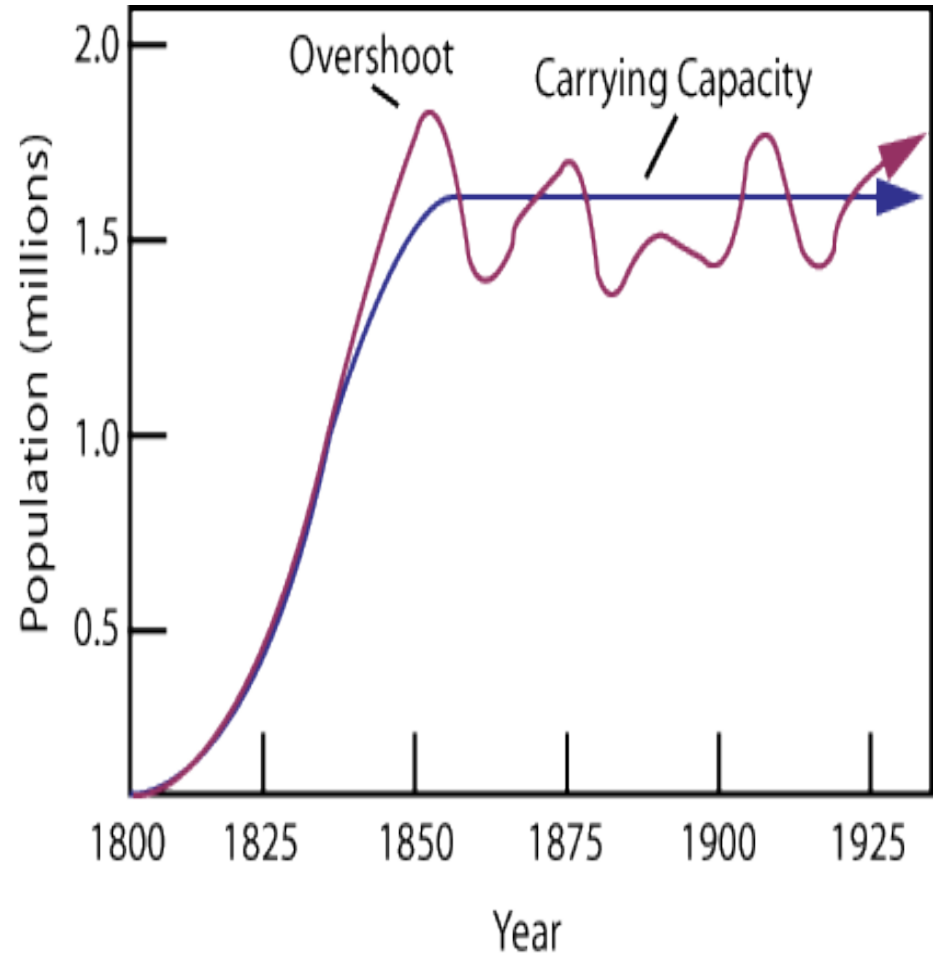
# Parasitism



- PARASITE BENEFITS by getting food and shelter from the HOST
- This is good for the tick, but bad for the human.

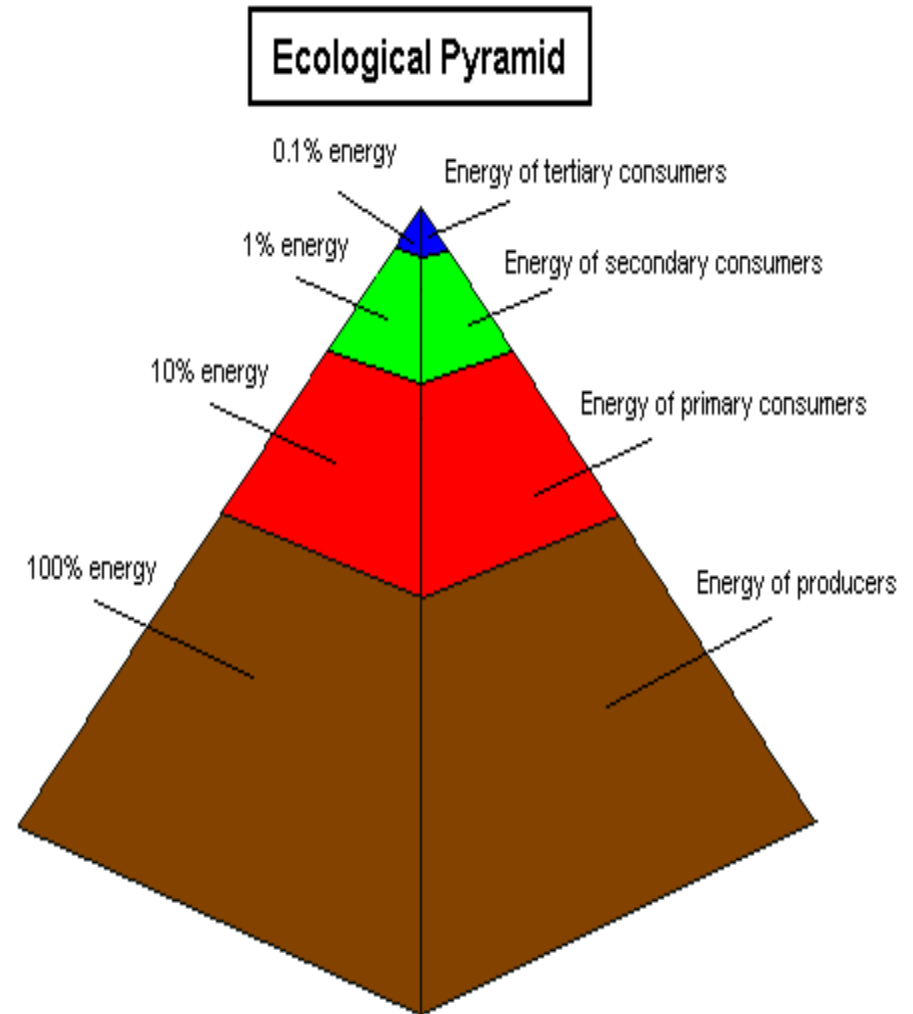
# Carrying Capacity

- **Maximum number** of individuals that an ecosystem can support
- Limiting factors:
  - Food availability
  - Competition
  - Disease
  - Predation
  - Natural Disasters

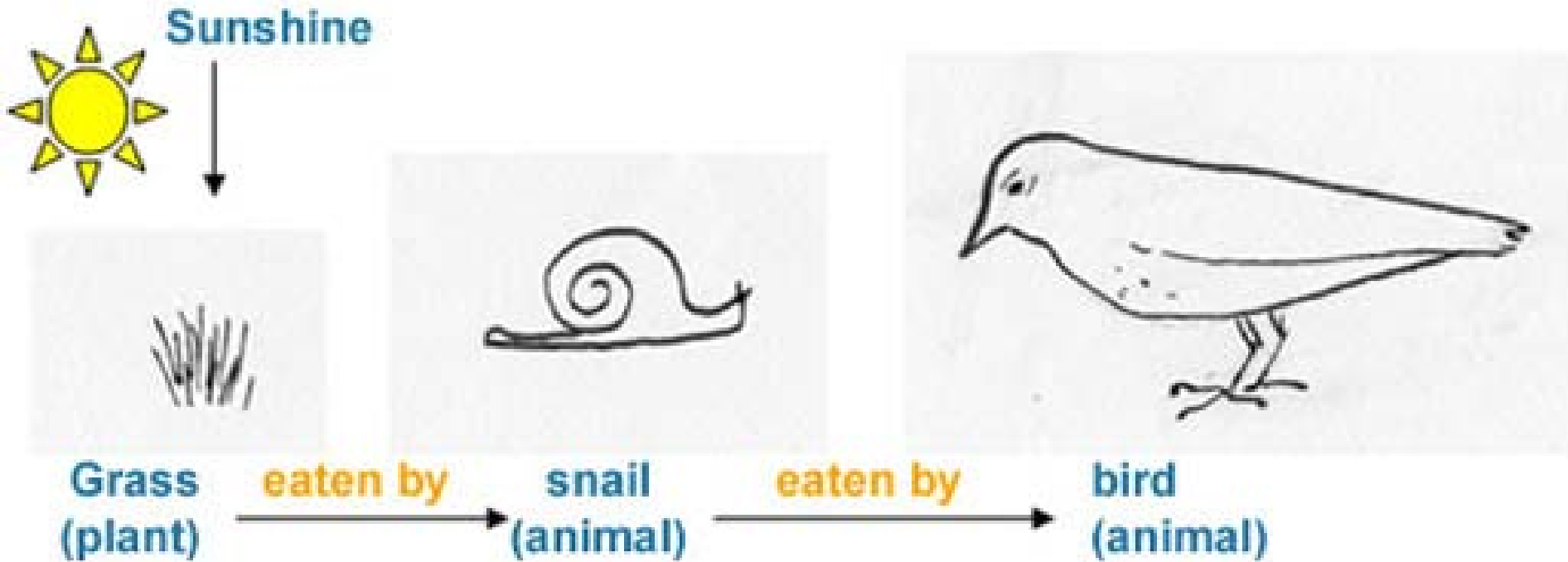


# Trophic Levels

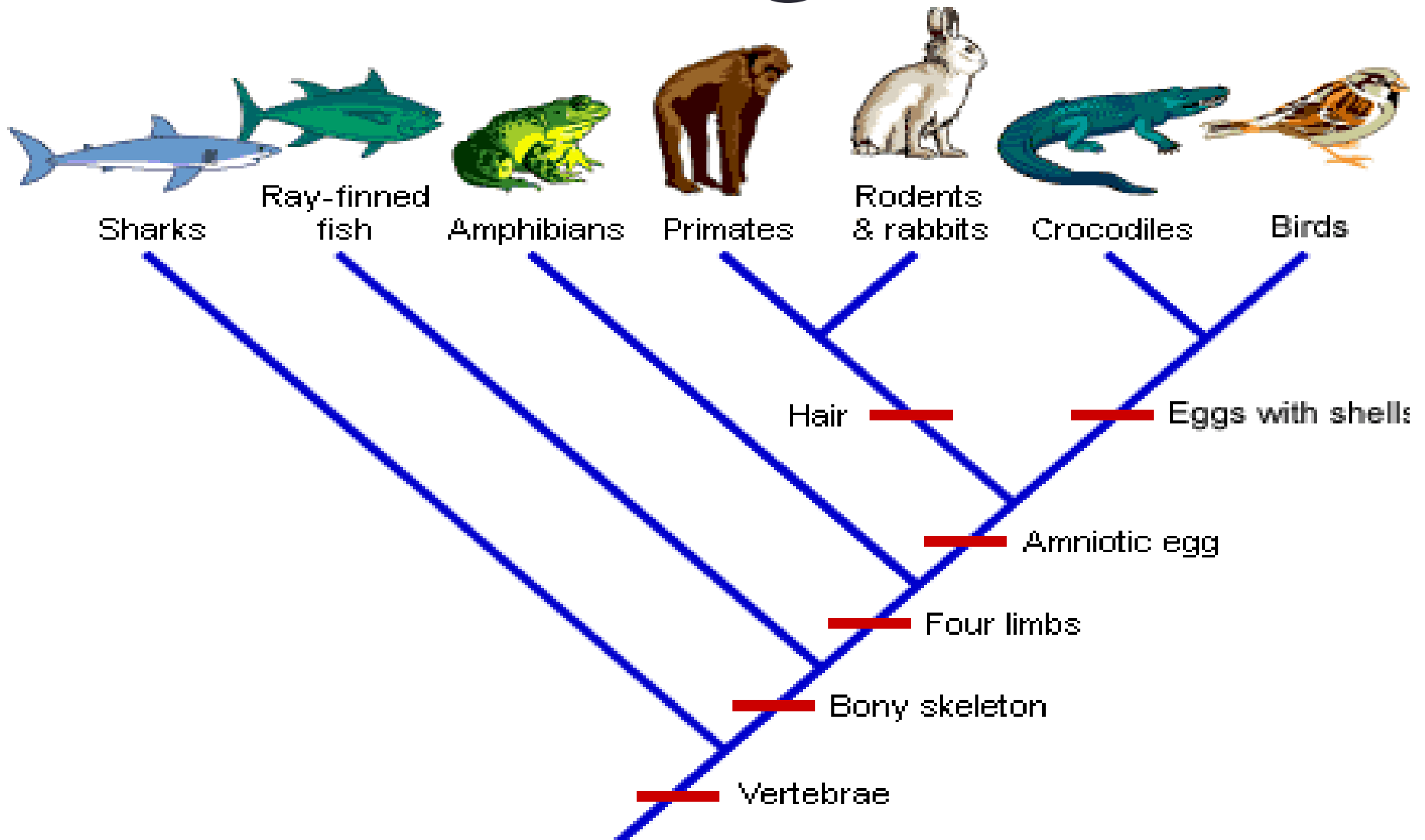
- Steps in a food chain/web
- Energy passes from one organism to another
- **About 10%** of the energy at one level passes to the next



# Food Chain

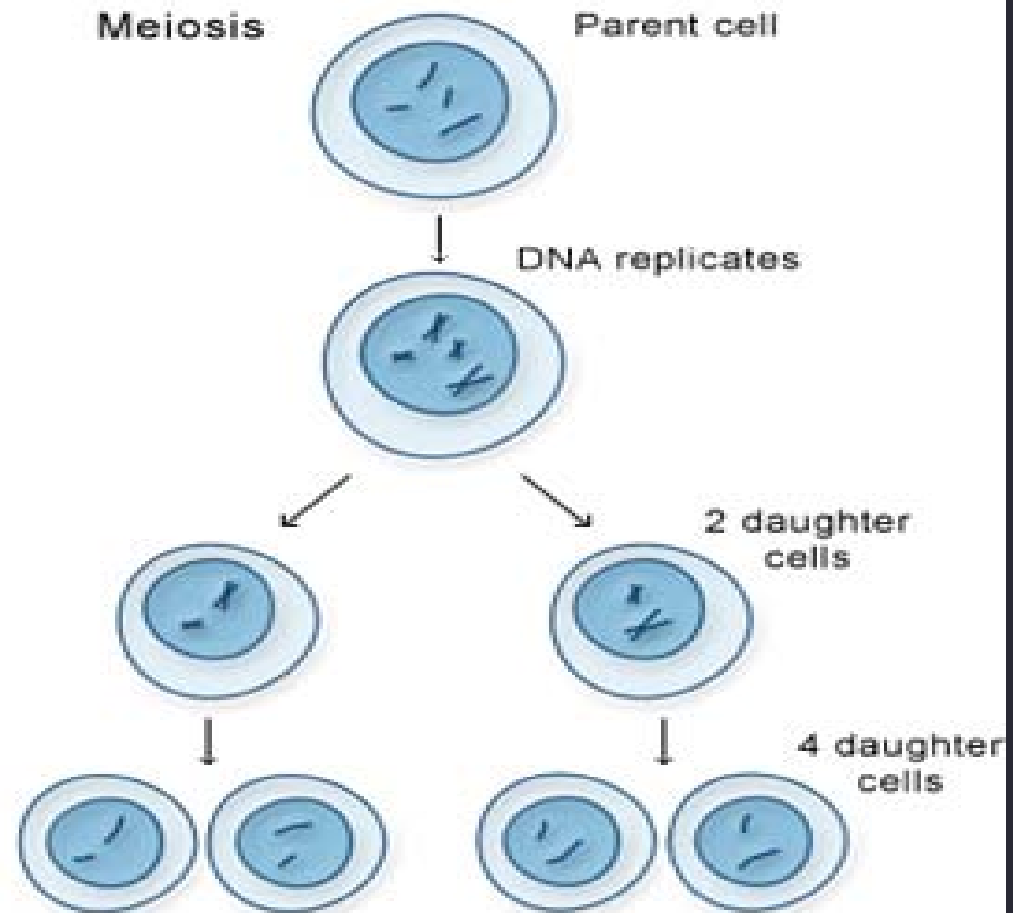
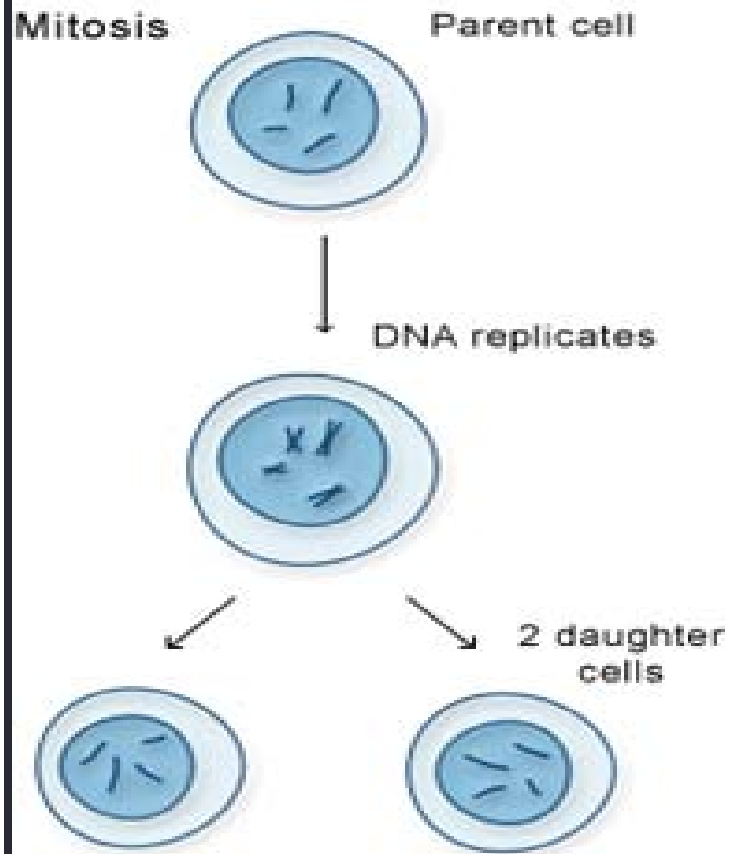


# Cladogram

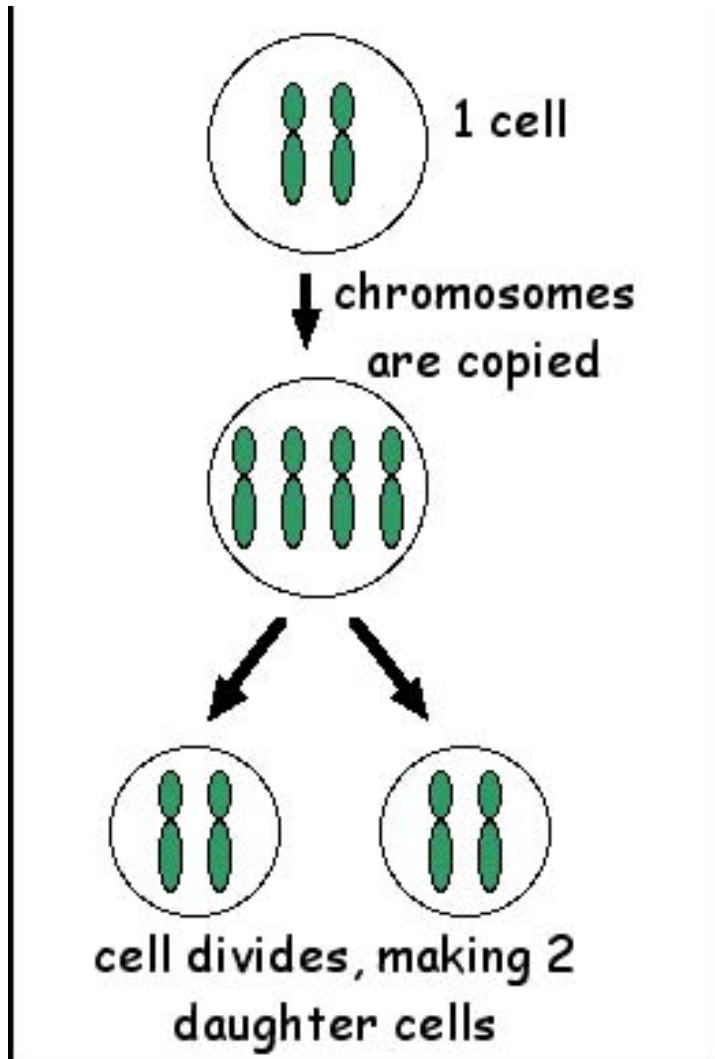




# Mitosis vs Meiosis



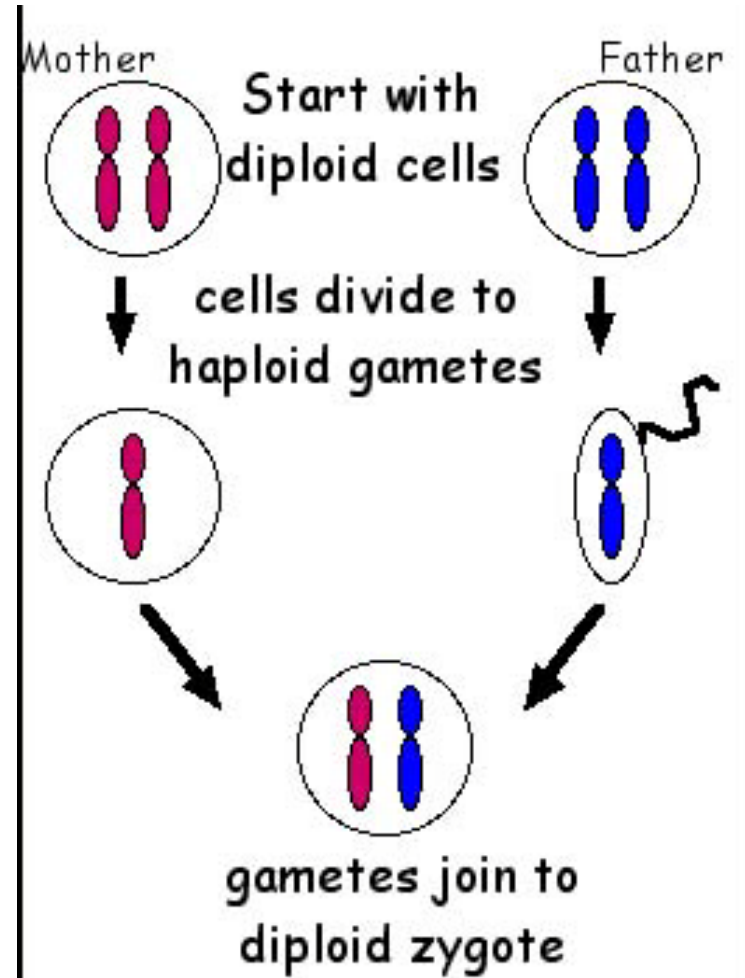
# Mitosis



- Cell division
- Produces two identical diploid daughter cells

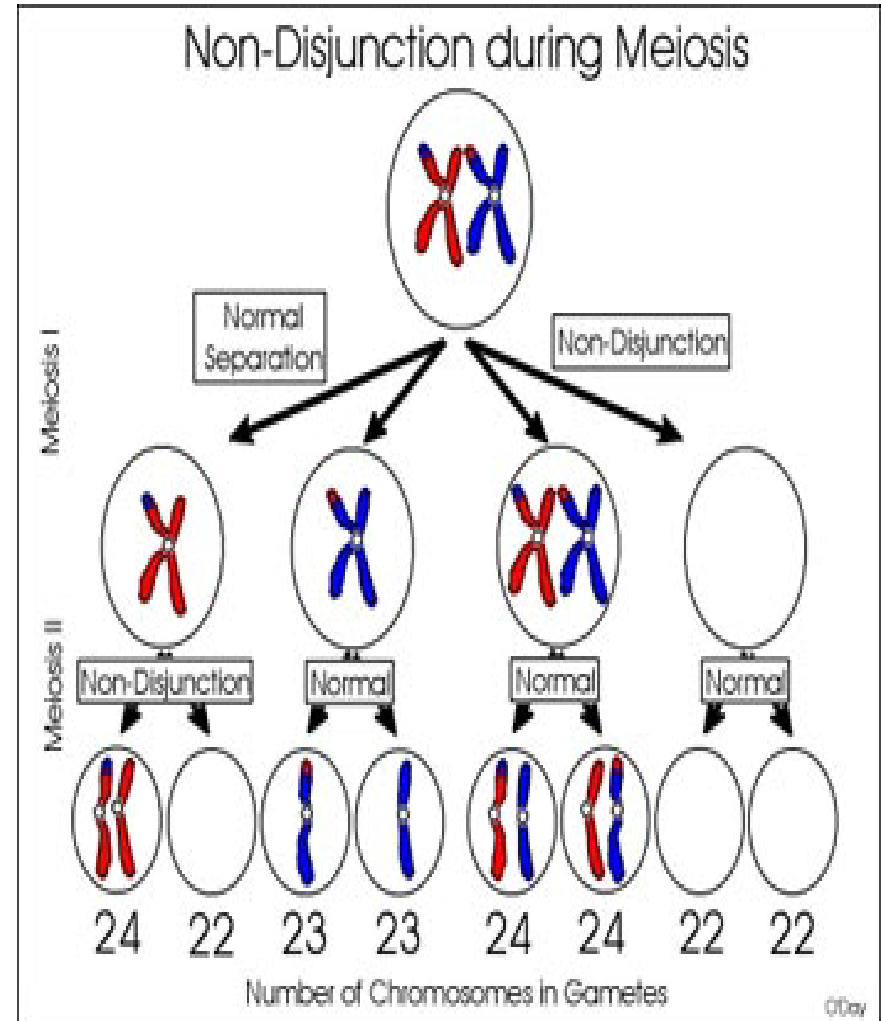
# Meiosis

- Produces **four different** haploid daughter cells (gametes)
- Occurs in sex cells to form gametes



# Nondisjunction

- Homologous chromosomes **fail** to separate during meiosis.



# Protists

- Unicellular Eukaryotes
- Can be autotrophic or heterotrophic
- Reproduce mostly asexually

