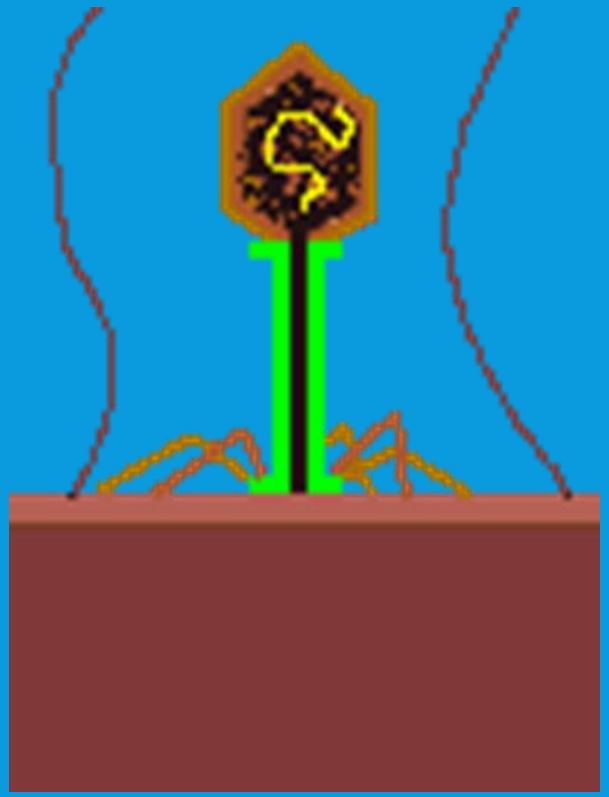
REPORTING CATEGORY 1

#1-VIRUSES

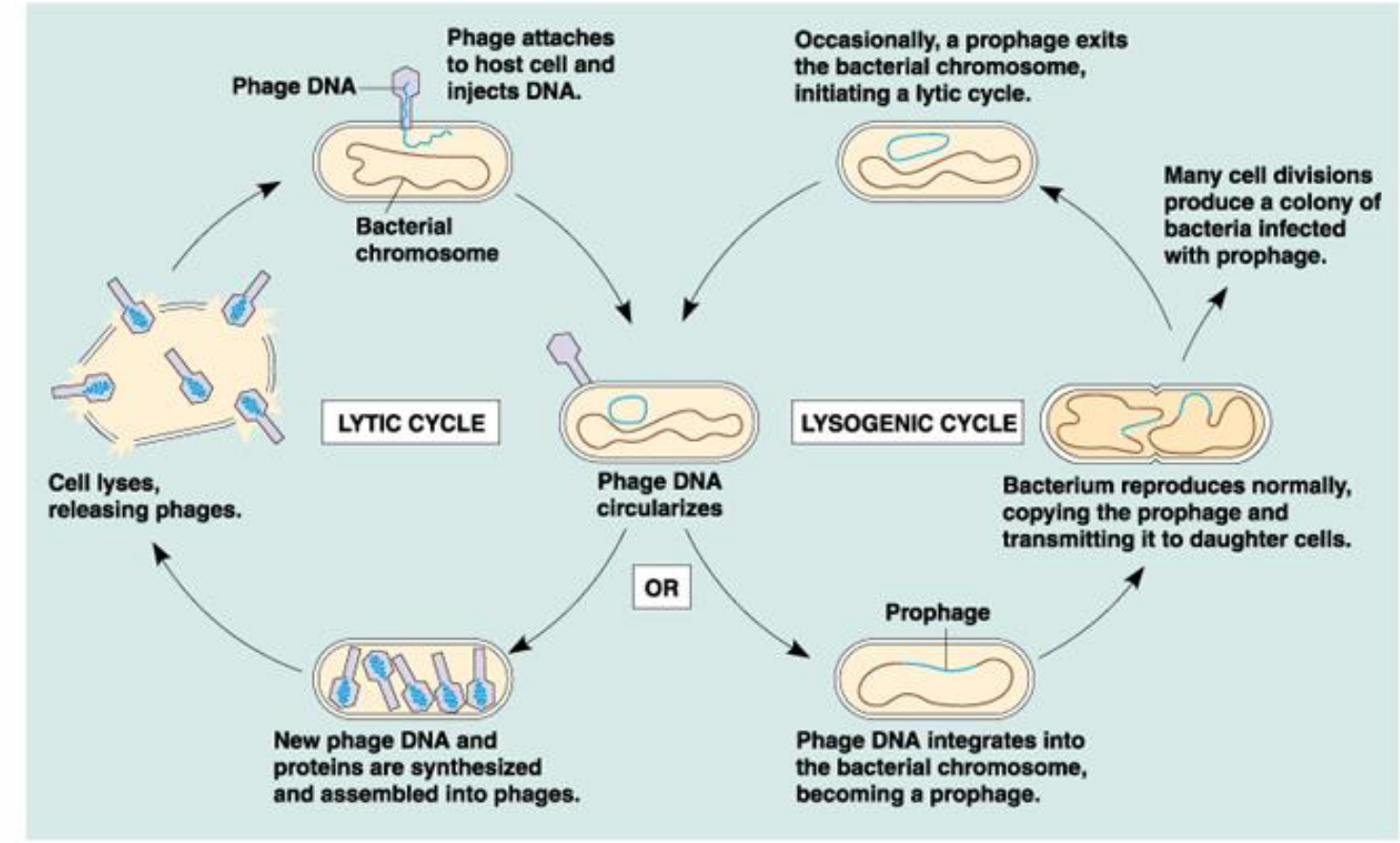
VIRUSES



- Virus must recognize specific receptor site on host cell
- All viruses = 2 basic parts:
  - nucleic acid
  - protein coat (capsid)
- Capsid: protein coat containing inner core of:
  DNA or RNA
- Protein coat gives viruses diff. shapes

#45-VIRAL LIFE CYCLES

VIRAL LIFE CYCLES



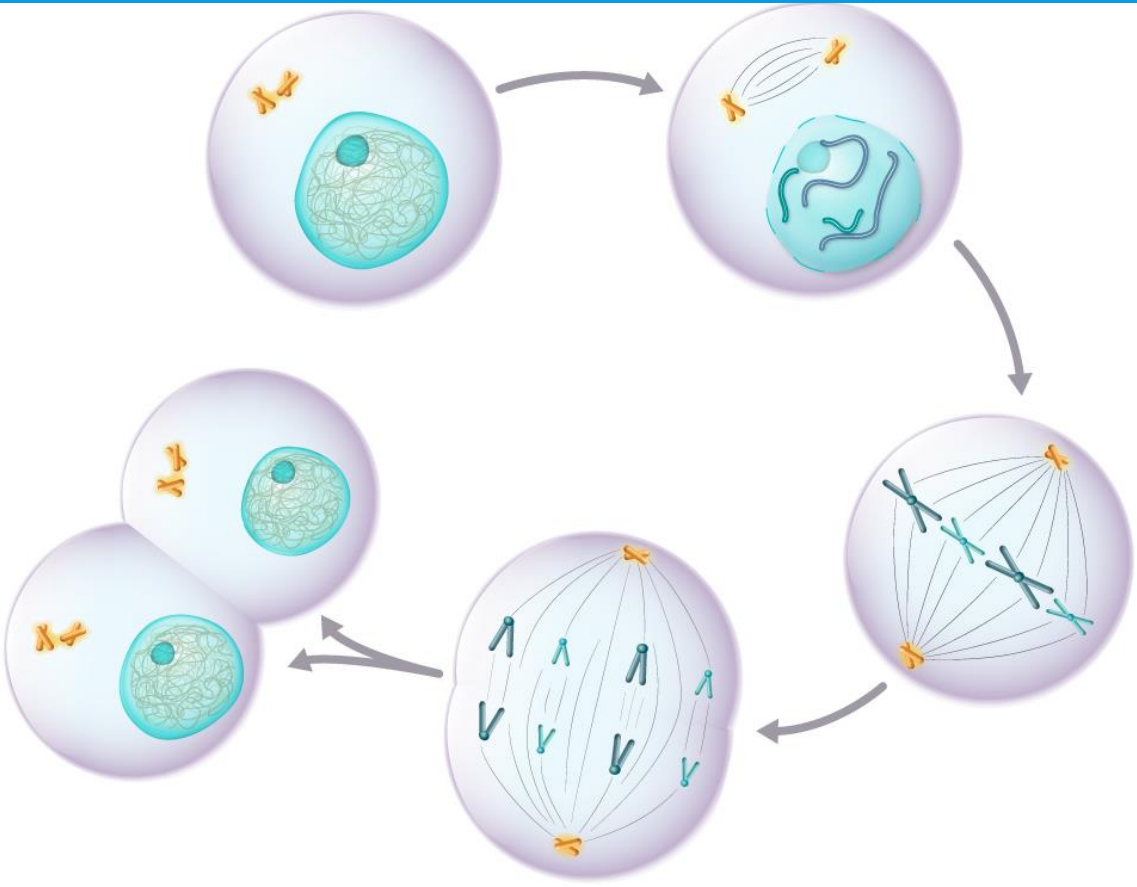
#47-CELL DIFFERENTIATION

DNA AND GENES

GENE: - A SEGMENT OF DNA LOCATED ON THE CHROMOSOME
-THE CARRIERS OF HEREDITARY INFORMATION IN CELLS
-CODE FOR THE PROTEINS THAT CARRY OUT CELLULAR FUNCTIONS

#16-CELL CYCLE

PHASES OF MITOSIS



Four phases of mitosis:

- Prophase
- Metaphase
- Anaphase
- Telophase

#41-CELL CYCLE

MISTAKES IN THE CELL CYCLE

- **Cancer**

a malignant growth resulting from uncontrolled cell division

- **Possible causes of cancer:**

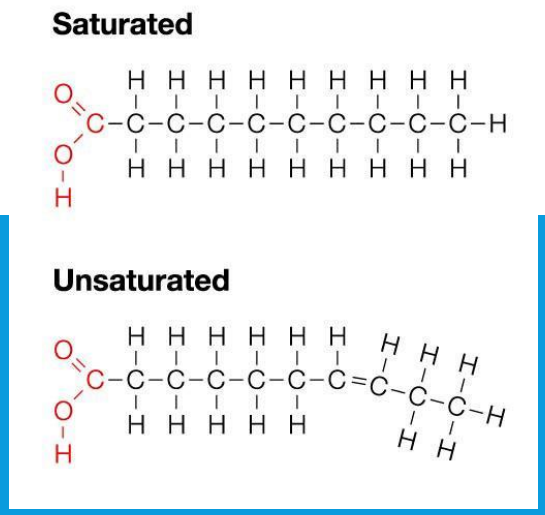
- **1. genetic factors – predisposition in the family; genes inherited**

- **2. environmental factors – smoking; air and water pollution**

- **3. viral infections – that damage the genes**

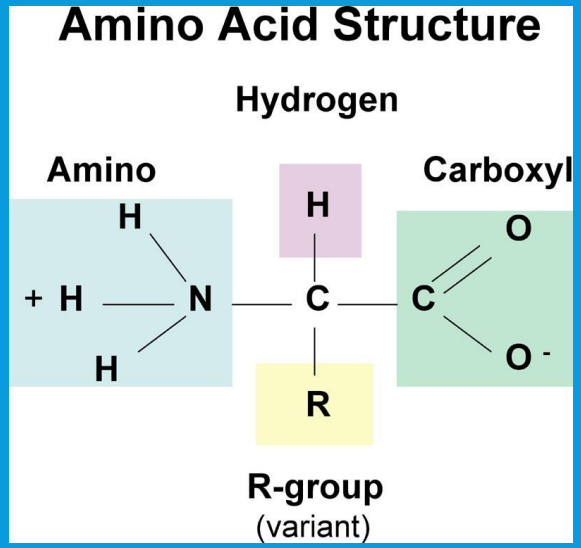
#36-BIOMOLECULES

BIOMOLECULES



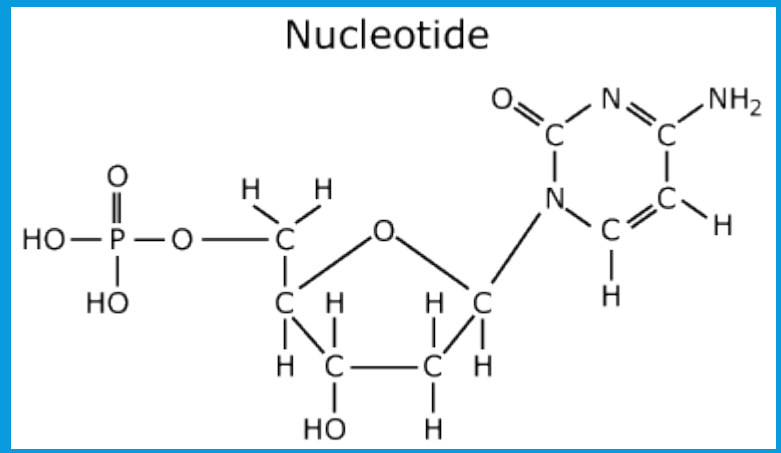
LIPID C:H:O

CARBOHYDRATE C:H:O



←PROTEIN

C:H:N:O



NUCLEOTIDE
C:H:N:O:P

#20-BIOMOLECULES

POLYMERS AND MONOMERS

Carbohydrates: monosaccharide

disaccharide

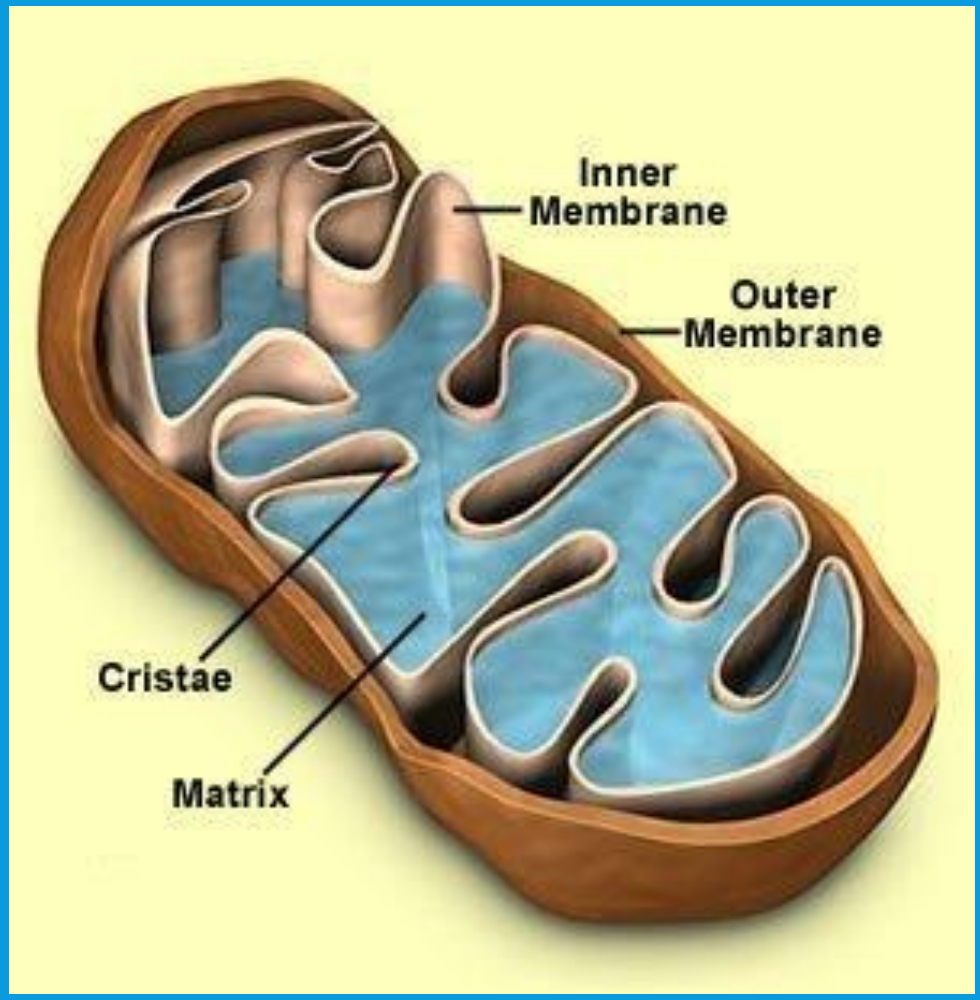
polysaccharide

- **Lipids:** Triglycerides are composed of 1 glycerol and 3 ___ fatty acids.
- **Proteins:** Amino acids bonded together by peptide bonds
- **Nucleic acids:** Nucleotides include:
  - phosphate group
  - pentose sugar (5-carbon)
  - nitrogenous bases

#6-ENERGY IN A CELL

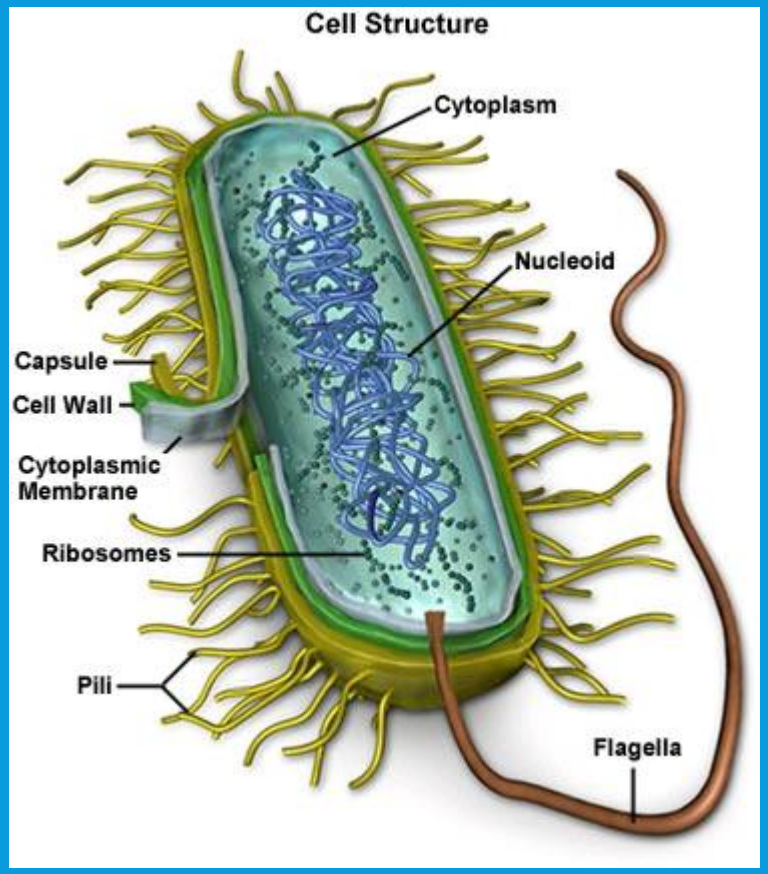
CELLULAR RESPIRATION

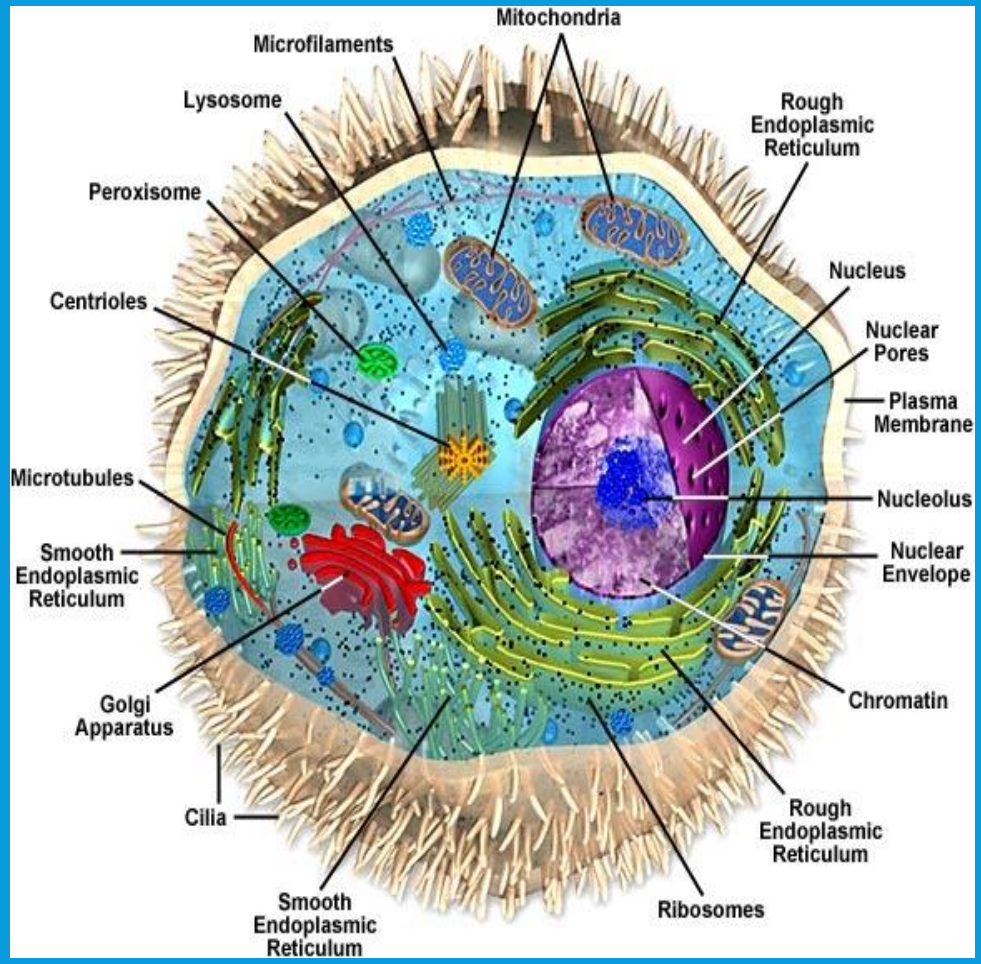
- When we eat, we get energy (glucose and other sugars)
- Food energy is broken down into usable energy
- Energy used to bond phosphate groups to ADP to make ATP



#23-CELL STRUCTURES

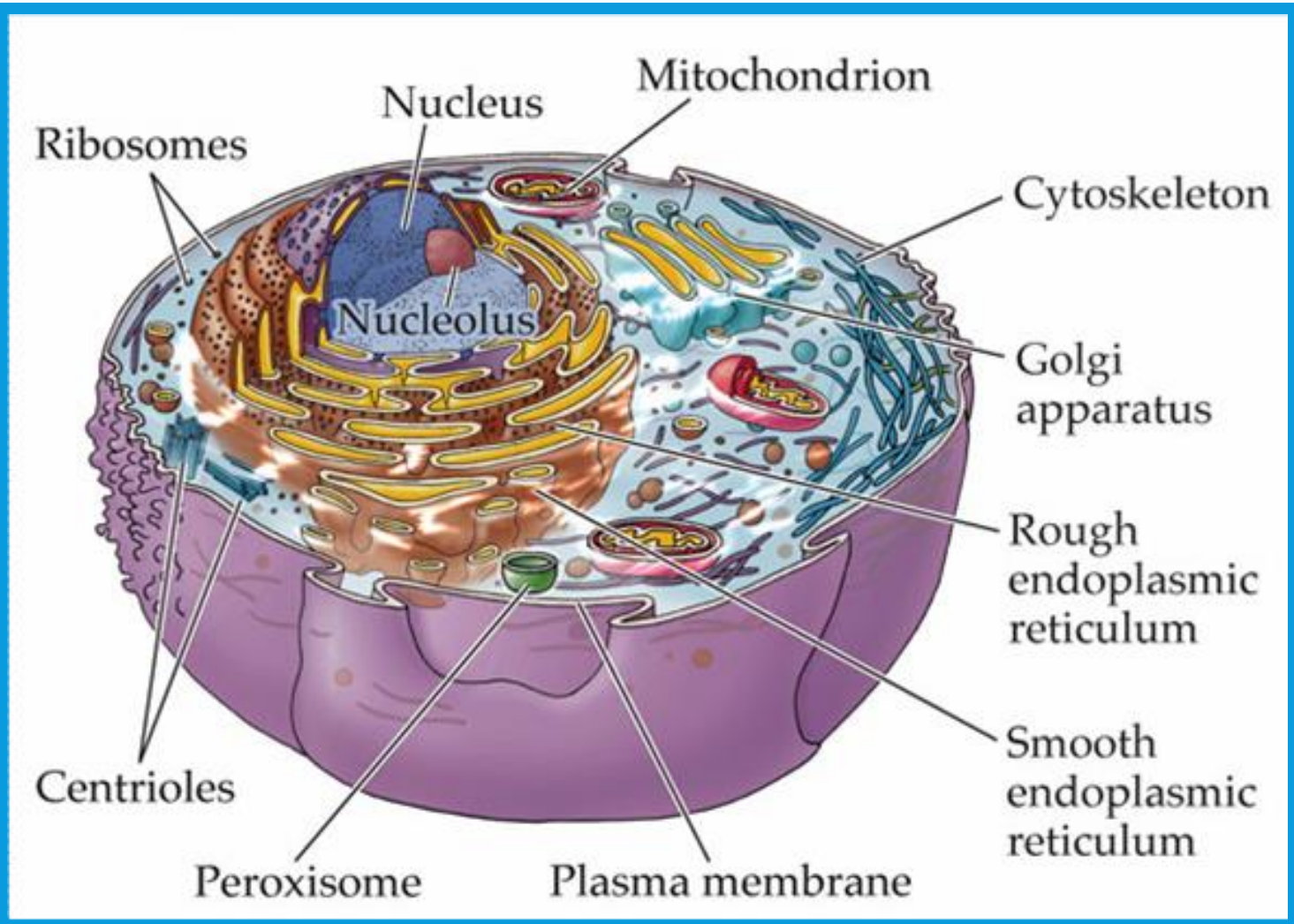
PROKARYOTES VS. EUKARYOTES





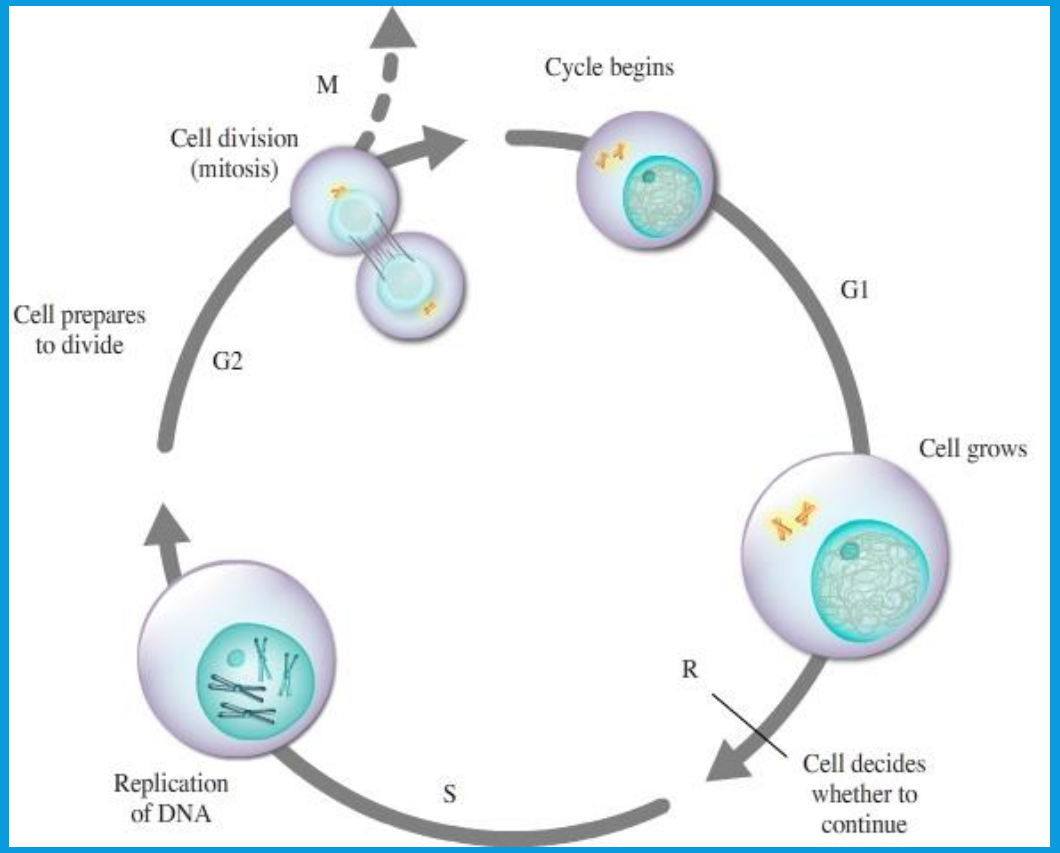
#29-CELL STRUCTURES

ORGANELLES


Mitochondrion
Nucleus
Ribosomes
Cytoskeleton
Nucleolus
Golgi apparatus
Rough endoplasmic reticulum
Smooth endoplasmic reticulum
Centrioles
Peroxisome
Plasma membrane

#33-CELL CYCLE

PHASES OF THE CELL CYCLE



Interphase – preparing for cell division

- G1 phase – primary growth phase
- S phase – DNA replication
- G2 phase – second period of growth
- Organelles replicate throughout