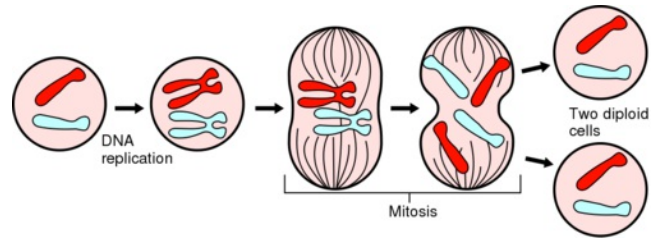
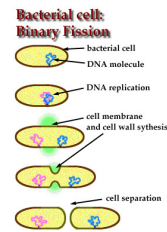


Asexual reproduction



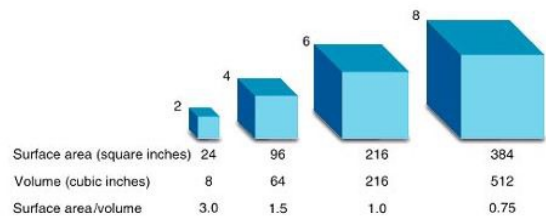
process by which a single parent reproduces by itself; offspring genetically identical to parent

Binary fission



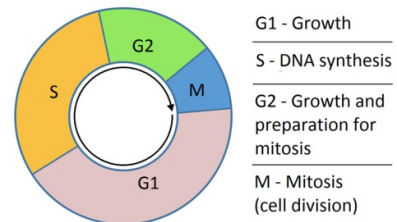
means "division in half," type of asexual reproduction (example: prokaryotes/bacteria)

Surface area-to-volume ratio



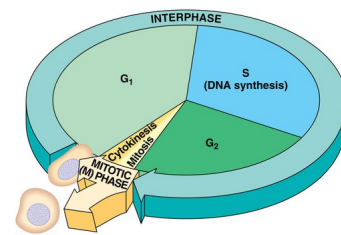
this decreases as a cell grows so it limits the size a cell can be

Cell cycle



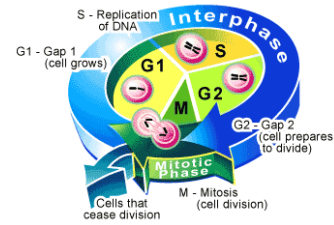
series of events that cells go through as they grow and divide

Interphase



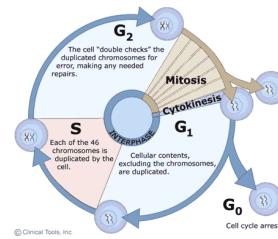
period of the cell cycle between cell divisions; includes G₁, S, & G₂ phases

G1 phase



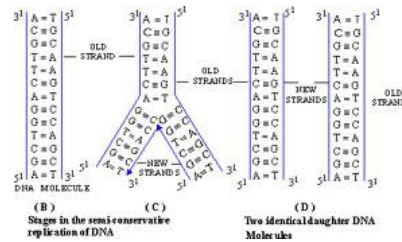
period of cell growth

S phase



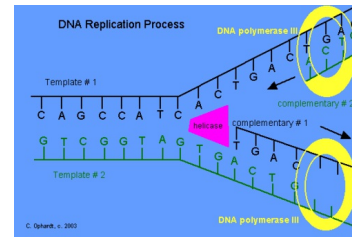
period where DNA replication occurs

DNA replication



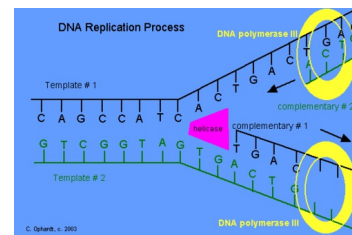
to make a copy of an organism's DNA

Template strands



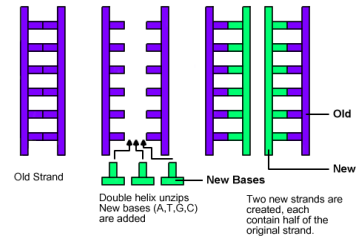
the original parent DNA strands

Complimentary strands



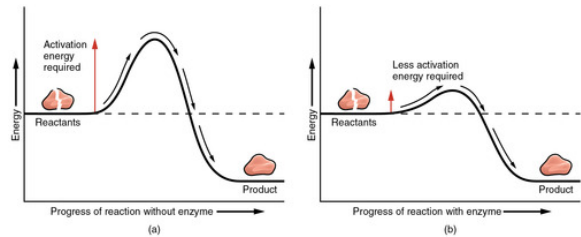
the new daughter DNA strands

Semiconservative



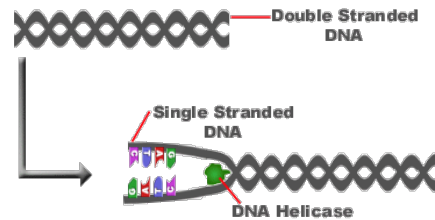
term meaning that a DNA molecule has 1 old strand and 1 new strand

Enzyme (-ase)



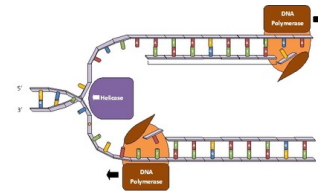
speed up chemical reactions such as DNA replication by lowering the activation energy

Helicase



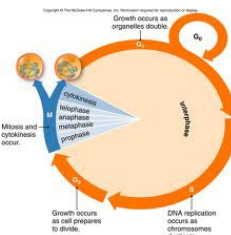
enzyme that unzips DNA by breaking the hydrogen bonds between the nitrogenous bases; it "cracks" the code...get it! :)

DNA polymerase



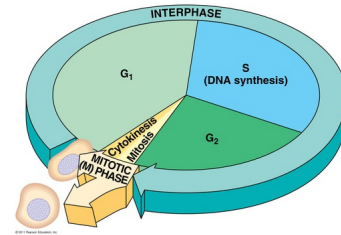
enzyme that adds new nucleotides to each original strand

G2 phase



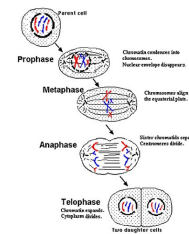
cell prepares, or gets ready, for cell division

M phase/Cell division



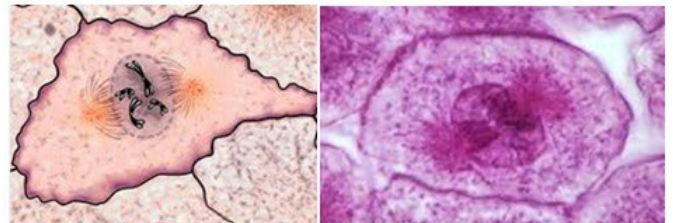
mitosis and cytokinesis in eukaryotic cells

Mitosis



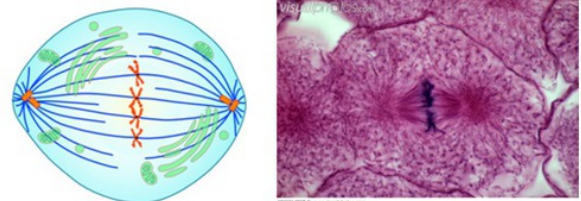
part of eukaryotic cell division during which the cell nucleus divides (nuclear division)

Prophase



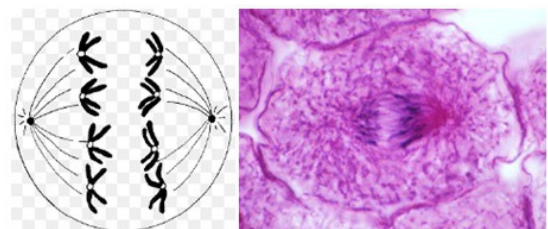
first and longest phase of mitosis; chromosomes become visible and nuclear envelope breaks down

Metaphase



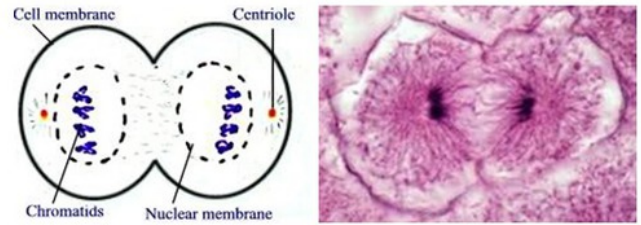
second phase of mitosis; chromosomes line up across the center of the cell

Anaphase



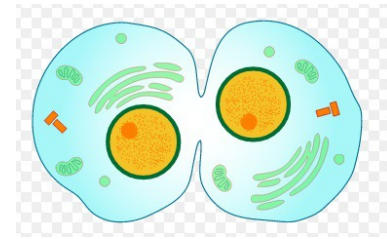
third phase of mitosis; chromosome pairs separate and move toward opposite poles

Telophase



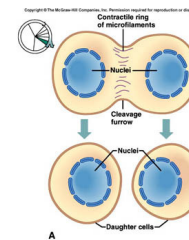
fourth and final phase of mitosis; chromosomes uncoil and two new nuclear envelopes form

Cytokinesis



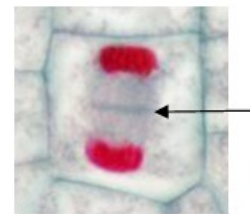
division of the cytoplasm during cell division (cytoplasmic division)

Cleavage furrow



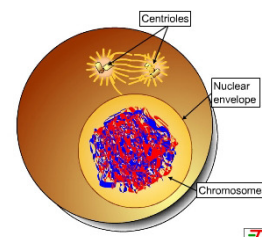
where cytoplasm pinches in during cytokinesis (animal cells)

Cell plate



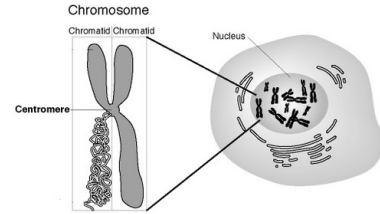
structure that divided the cytoplasm in plant cells during cytokinesis

Centriole



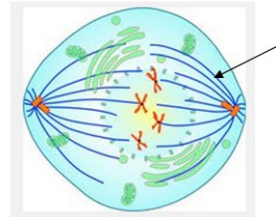
one of two tiny structures located in the cytoplasm of animal cells near the nuclear envelope

Centromere



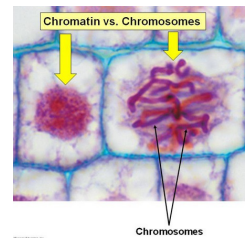
area where the chromatids of a chromosome are attached

Spindle



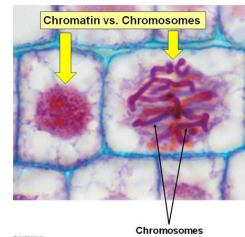
a fanlike system of microtubules that help separate the chromosomes during mitosis

Chromatin



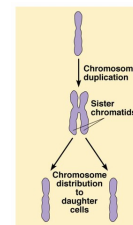
uncoiled DNA

Chromosome



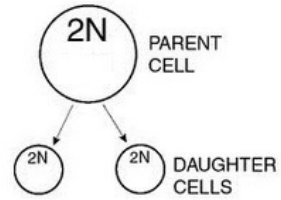
a strand of DNA that is visible because it is coiled up tightly

Sister chromatid (or chromatid)



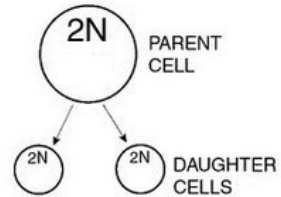
one of two identical "sister" parts of a duplicated chromosome

Parent cell



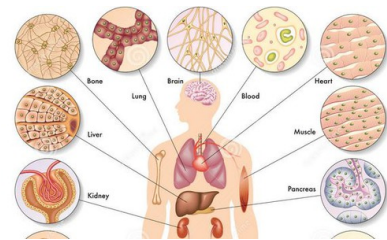
original cell

Daughter cells



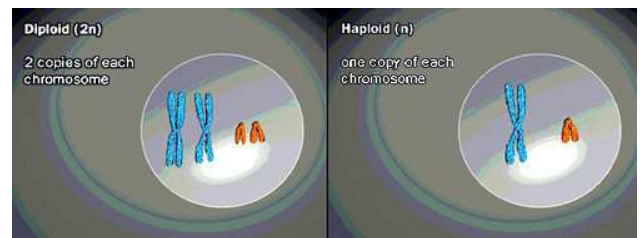
new cells

Somatic cells



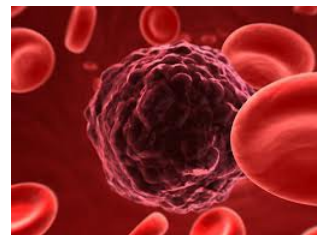
body cells (diploid 2N) - NOT sex cells like sperm/egg (haploid N)

Diploid (2N)



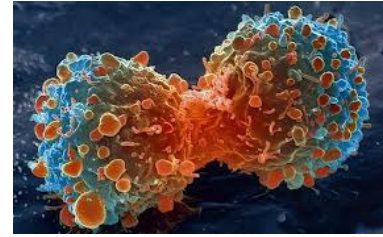
term used to refer to a cell that contains two sets of chromosomes (ex. humans $2N = 46$; 23 from dad + 23 from mom) -NOT haploid (N)

Disease



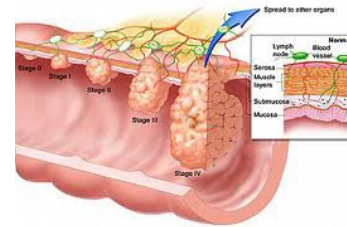
any change, other than an injury, that disrupts the normal functions of the body

Cancer



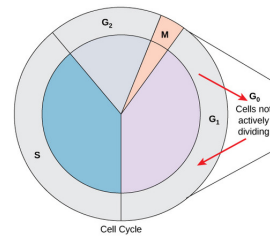
disorder in which some of the body's own cells cannot stop dividing; they have lost the ability to control the cell cycle

Tumor



mass of growing tissue that may form when a cell or group of cells begins to grow and divide uncontrollably

Go phase/G zero



resting phase; cancer cells CANNOT enter this phase