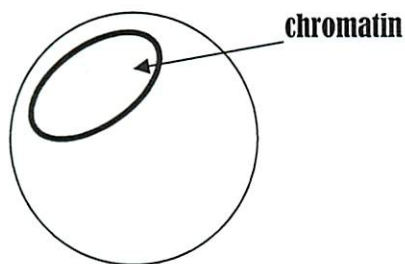
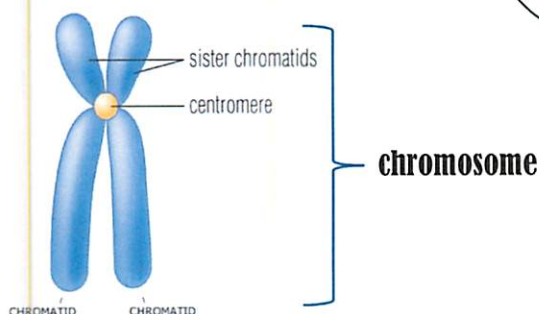


The Cell Cycle and Mitosis (Cell Division)

INTERPHASE
Cell is growing and performing its life functions

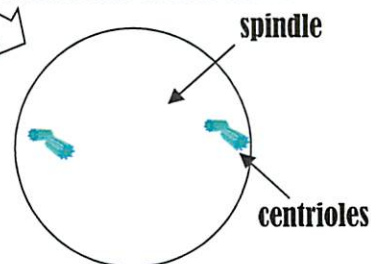


INTERPHASE
DNA replicates, chromatin is now known as chromosomes which are coiled up, duplicated strands consisting of 2 chromatids

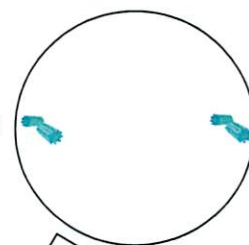


MITOSIS BEGINS

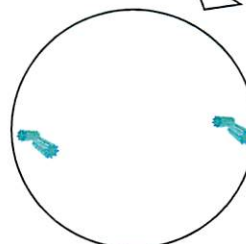
PROPHASE
Centrioles appear and spindle forms, nuclear membrane breaks down



METAPHASE
Chromosomes line up in the middle of the cell. Spindle fibers attach to the centromeres.

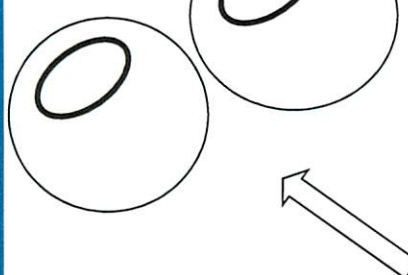


ANAPHASE
Centromere splits and chromatids pull apart and move away towards opposite sides of the cell

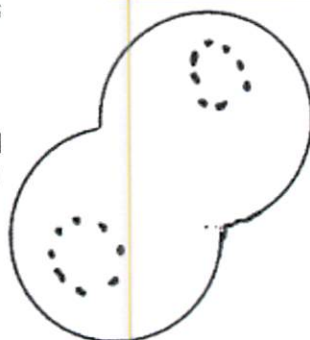


MITOSIS ENDS

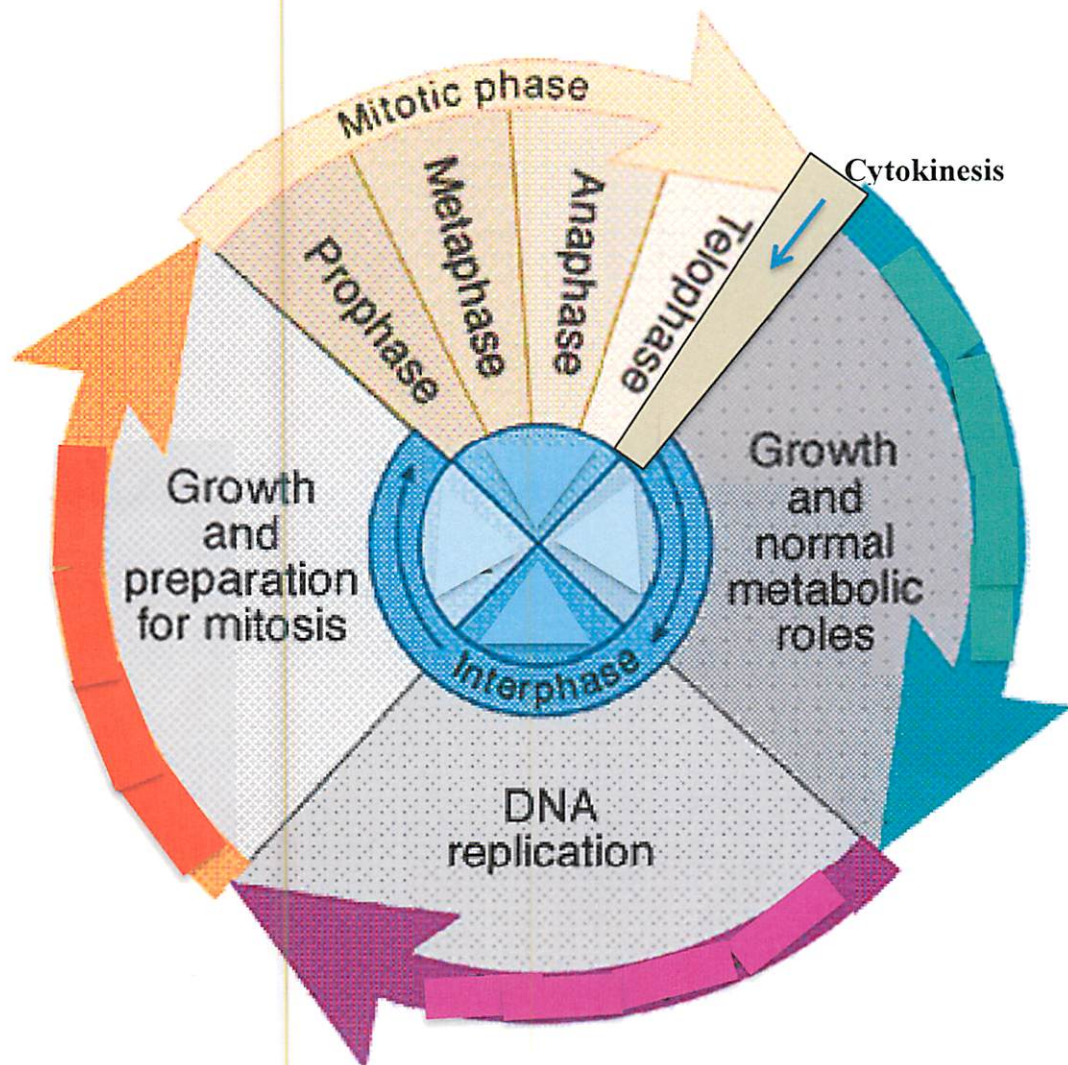
CYTOKINESIS
Cytoplasm and organelles are divided between the two cells and two genetically identical daughter cells are created (also genetically identical to the original or parent cell and somewhat smaller)



TELOPHASE
Nuclear membranes reform, chromatids unwind to become chromatin and cell membrane begins to pinch in. Cell plate forms in plant cell which becomes cell wall



A Cell's Life (The Cell Cycle)



Cells go through three basic phases in the Cell Cycle:
Interphase, Mitosis, and Cytokinesis (at the end of mitosis)