

# Mitosis

Production of my cells  
Ex: Skin, blood cells,  
muscle cells. ect.

• makes 2 identical cells as its  
Final product.

• Goes through one division - cell division  
(Mitosis)

• Starts with process called Interphase. ①

3 steps occurring in Interphase

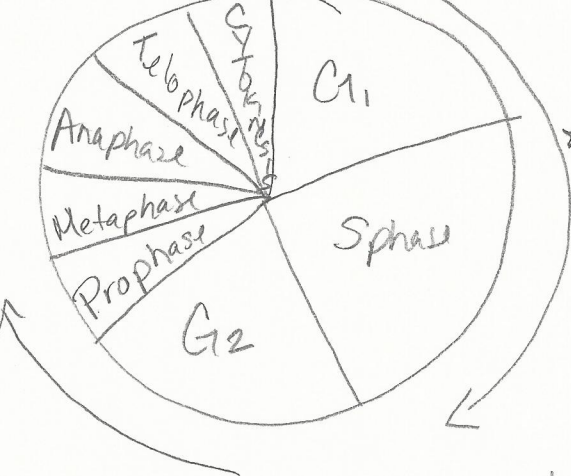
- G<sub>1</sub> - DNA spread as chromatin, grows bigger
- S - Copy's DNA, chromosomal protein
- G<sub>2</sub> - Grows bigger, makes organelles + molecules, prepares for nuclear division.

② P M A T C - Phases of Mitosis

Prophase  
Metaphase  
Anaphase  
Telophase  
Cytokinesis

2 - steps to cell cycle

Interphase, Mitosis



Telo - two nuclei  
Cleave furrow  
\*Cyto - cytoplasm  
Divides. 2 identical  
cells. Diploid Cells

Pro - 1<sup>st</sup> dividing phase, see chromosomes  
in the nuclei.

Meta - Middle - Chromosomes line up in  
middle of cell.

Ana - Apart - Chromatids pulled apart by  
spindle fibers

# Meiosis - How mom and Dad made me!

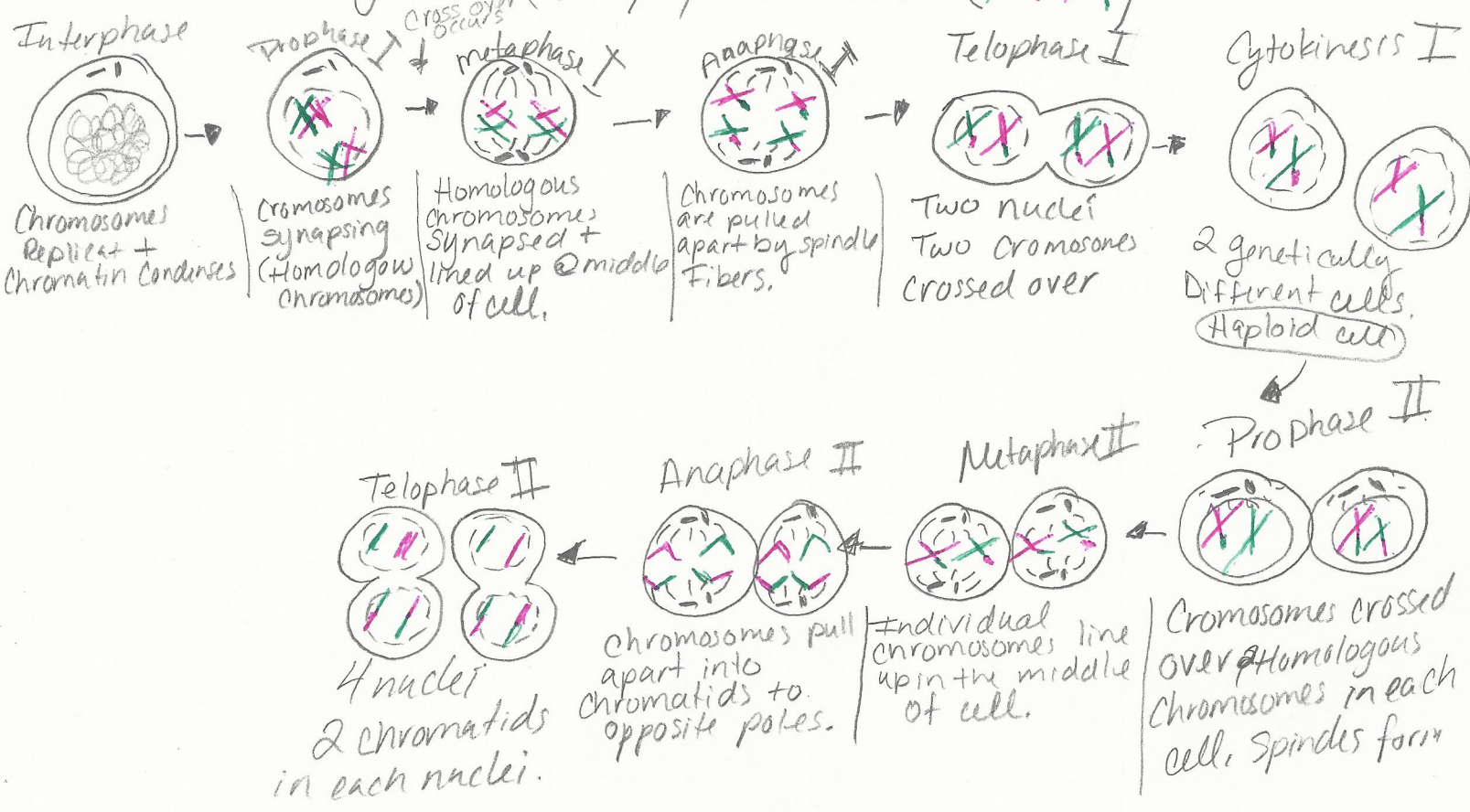
- Sexual Reproduction - Resulting in genetic Variation.
- 4 haploid cells. 4 non-identical cell (genetically Different)
- Haploid cells - Egg cell + Sperm cell - 23 chromosomes
- Diploid cell - Egg + sperm combine to make a Zygote
- 2 cell Divisions - Meiosis I + Meiosis II

Interphase occurs before cell Division. - Chromosomes replicate + Chromatin condenses, (Same as mitosis) - G<sub>1</sub>, S, G<sub>2</sub>.

Meiosis I - Prophase I, Metaphase I, Anaphase I, Telophase I, Cytokinesis I.

Meiosis II - Prophase II, Metaphase II, Anaphase II, Telophase II, Cytokinesis II.

- Chromosomes - Synapsis (XX), Cross over (XX)



# Meiosis

How mom and Dad made me! Sexual Reproduction.

o 2 cell Division - Meiosis I & Meiosis II

Meiosis I - Prophase I, Metaphase I, Anaphase I, Telophase I, Cytokinesis I

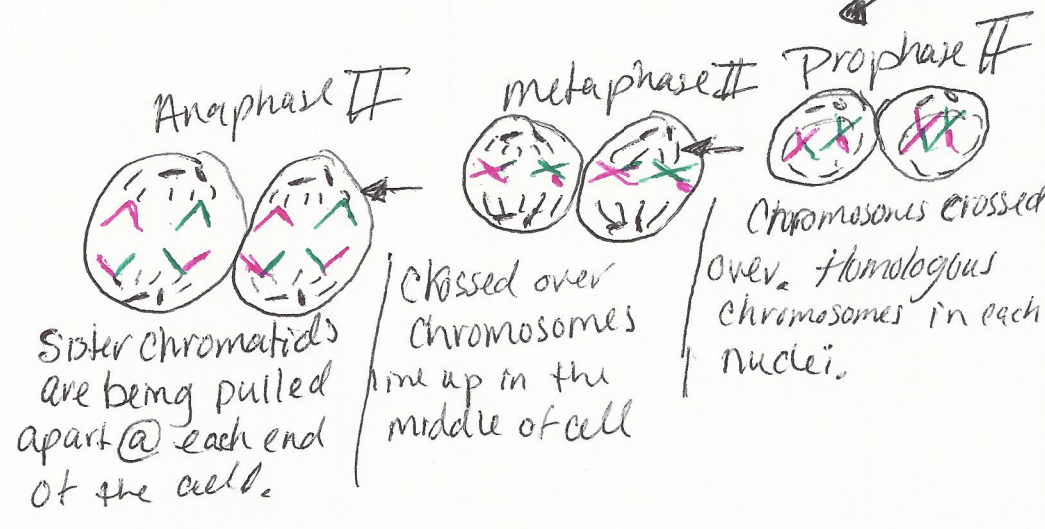
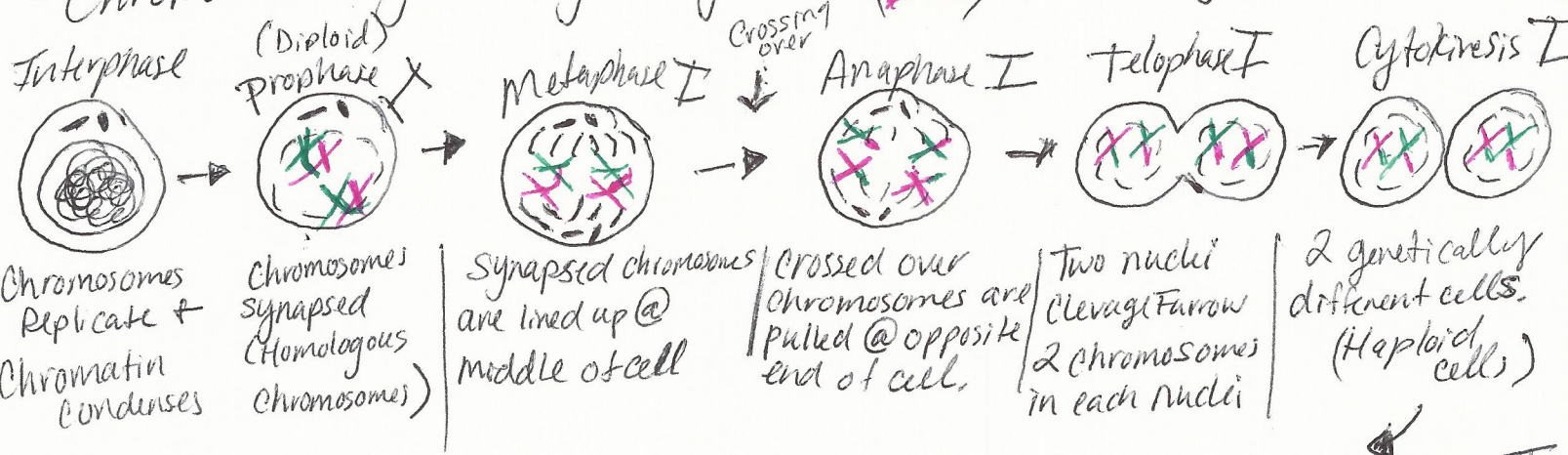
Meiosis II - Prophase II, Metaphase II, Anaphase II, Telophase II, Cytokinesis II

Before meiosis I & II we have - Interphase - G<sub>1</sub>, S, G<sub>2</sub>

Haploid <sup>(n)</sup> cells - 23 chromosomes (23 mom, 23 dad) mom-egg Dad-sperm

Diploid cells - 46 chromosome, combination of mom & Dad - Gamete (2n)

• Chromosomes go through - Synapsis (XX), Crossing over (XX)



# Meiosis

- 2 cell Divisions - Meiosis I, Meiosis 2
- Haploid cell - Egg + Sperm cells (23 chromosomes each)
- Diploid - 2n chromosomes - Gamete

Meiosis I - Prophase I, Metaphase I, Anaphase I, Telophase I, Cytokinesis I

Meiosis II - Prophase II, Metaphase II, Anaphase II, Telophase II, Cytokinesis II

Before Meiosis I + II, Interphase occurs - chromosomes replicate and chromatin condenses.

