

Unit 5: Cellular Division

Celebration of Learning Review

Vocabulary:

- Anaphase
- Asexual reproduction
- Benign tumor
- Cancer
- Carcinogen
- Cell cycle
- Cell plate
- Centrioles
- Centromere
- Chromatin
- Chromosome
- Crossing over
- Cytokinesis
- Diploid
- Fertilization
- Gametes
- Genetic recombination
- Haploid
- Homologous chromosomes
- Interphase
- Karyotype
- Malignant tumor
- Meiosis
- Metaphase
- Metastasis
- Mitosis
- Prophase
- Sex chromosomes
- Sexual reproduction
- Sister chromatid
- Spindle
- Telophase
- Zygote

Topics/Concepts:

- Asexual vs. Sexual Reproduction
- Gametes (sex cells) vs. Somatic (body cells) Cells
- Chromosomes – what are they made of? autosomal vs. sex chromosomes
- The Cell Cycle
- Mitosis
- Meiosis
- Cancer – benign vs. malignant, metastasis

Processes:

- *The Cell Cycle*
 - Why do cells want/need to divide?
 - What are the steps to the cell cycle?
 - How many sub-phases are in Interphase?
 - What happens in each of these sub-phases?
- *Mitosis*
 - What is the proper order of phases?
 - Why does the order of the phases matter?
 - Why is it important that mitosis occurs *before* cytokinesis?
 - What happens in each phase?
 - Can you identify a cell in each of the phases?
 - How many sub-phases are in the Mitotic Phase?
 - What is the result of mitosis?
 - Genetically unique or identical?

- How many chromosomes?
- What is the difference between an animal cell and a plant cell undergoing mitosis?
- *Meiosis*
 - How many times does meiosis go through prophase-telophase?
 - What is the proper order of phases?
 - What happens in each phase?
 - Can you identify a cell in each of the phases?
 - What is the result of meiosis?
 - Genetically unique or identical?
 - How many chromosomes?
 - What is crossing over?
 - When does this occur?