**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?