

The cell cycle is an ordered set of events, resulting in cell growth and division into two daughter cells.

- In multicellular organisms individual cells grow and then divide via a process called mitosis
- Organisms begin as a single cell (fertilized egg) that divides successively to produce many cells
- Meiosis is a special type of cell division necessary for sexual reproduction in eukaryotes.
- The number of chromosomes pairs in the cell is reduced to half the original number, typically from two sets (diploid) to one set (haploid).
- In humans the cells produced by meiosis are the gametes (egg and sperm cells).

Key Vocabulary	Assignments	Due Date
<p>Mitosis Vocabulary</p> <p>Anaphase Cell Cycle Cell Plate Centromere Cytokinesis Daughter Cells Interphase Metaphase Mitosis Prophase Spindle Fiber Spontaneous Generation Telophase</p> <p>Meiosis Vocabulary</p> <p>Anaphase I Anaphase II Centromere Asexual reproduction Crossing Over Cytokinesis Diploid Egg Cell Gametes Haploid Homologous chromosome Interphase Metaphase I Metaphase II Prophase I Prophase II Spindle Fiber Telophase I Sexual Reproduction Sperm Cell Telophase II Zygote</p>	<p>#1 - Read pages 153 to 156</p> <p>a. How are gametes different from somatic (body) cells? b. Define tetrad. How do tetrads make metaphase 1 different from metaphase in mitosis? c. Describe independent assortment? What are the cellular structures involved? What is happening? What is the effect of independent assortment on genetic recombination? You will probably need to draw a few pictures to answer this question.</p> <p>#2 - Read pages 153 to 156</p> <p>d. Make a Venn diagram for Mitosis and Meiosis. e. What is the role of crossing-over in creating genetic variation?</p>	

Meiosis

Centromere	Centriole	Zygote
Meiosis 1		Meiosis 2
Homologous Pairs	Tetrad	
Crossing Over		Independent Assortment
Haploid	Diploid	Genetic Recombination