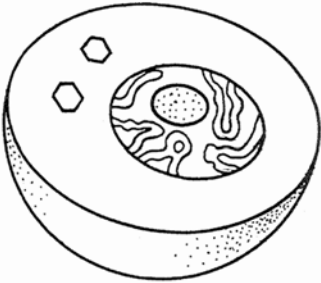
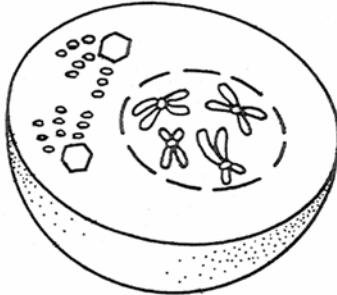
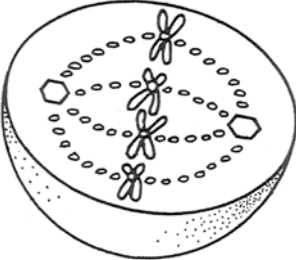
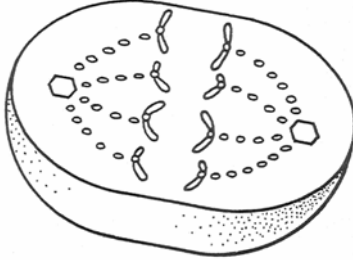
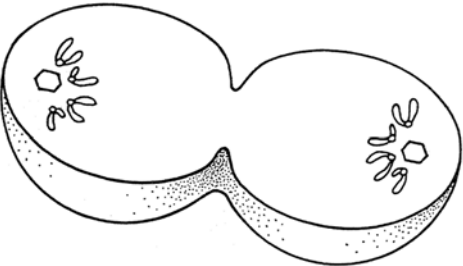
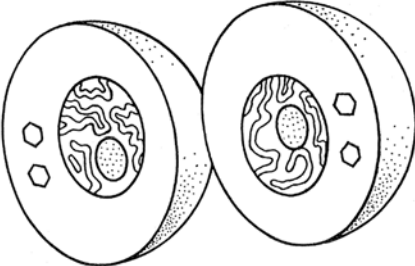


The cell cycle is an ordered set of events, resulting in cell growth and division into two daughter cells.

- 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><b>Mitosis Vocabulary</b></p> <p>Anaphase Cell Cycle Cell Plate Centromere Cytokinesis Daughter Cells Interphase Metaphase Mitosis Prophase Spindle Fiber Spontaneous Generation Telophase</p> <p><b>Meiosis Vocabulary</b></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><b>#1 - Read pages 145 to 147</b></p> <p>a. Create a one page outline (two if hand written) that includes all of the bold words.</p> <p><b>#2 - Read pages 148 to 151</b></p> <p>a. Draw and label the following stages of the cell cycle:</p> <ol style="list-style-type: none"> <li>1. Interphase</li> <li>2. Prophase</li> <li>3. Metaphase</li> <li>4. Anaphase</li> <li>5. Telophase</li> <li>6. Cytokinesis</li> </ol> <p><b>#3 – Read pages 153 to 156</b></p> <p>a. Make a Venn diagram for Mitosis and Meiosis.</p> <p>b. What is the role of crossing-over in creating genetic variation?</p>	

# The Cell Cycle and Mitosis

The Cell Cycle		Mitosis	Replication of DNA
<p>The cell cycle is an ordered set of events including Interphase and Mitosis.</p>		<p>Mitosis is the division of the nucleus plus cytokinesis, and produces two identical daughter cells.</p>	
Interphase		Prophase	
			
Metaphase		Anaphase	
			
<p>Spindle fibers align the <b>chromosomes along the middle</b> of the nucleus. This organization helps to ensure that in the next phase each new nucleus will receive one copy of each chromosome.</p>			
Telophase		Cytokinesis and Daughter Cells	
			
<p>In animal cells cytokinesis results in two daughter cells, each with one nucleus. In plant cells a cell plate forms between the two daughter cells.</p>			
Centrioles	Spindle fibers	Spontaneous Generation	
		<p><b>Francesco Redi</b>- Hypothesized that maggots developed from eggs laid by flies. Conducted one of the first controlled experiments, placing meat in flasks, some open, some sealed and others covered with mesh. Maggots appeared only in the open flasks in which the flies could reach the meat and lay eggs</p>	