

## Unit 4: Meiosis and Inheritance

### Chapters 9.5 and 9.6 & 10

‘Who ARE you?’

**Objectives:**

1. Describe the series of events by which reproductive cells are produced in complex plants and in animals.
2. Compare and contrast mitosis and meiosis.
3. Explain how crossing over and independent orientation/orientation of chromosomes leads to genetic variation.
4. Apply the rules of probability to inheritance.
5. Demonstrate the inheritance of traits from Mendelian and other varieties of inheritance.
  - a. one-trait (monohybrid)
  - b. two-trait (dihybrid)
  - c. multiple alleles/codominance
  - d. sex-linked/x-linked

Date	Classroom Activity	Homework
Mon 11/30 (lab)	<ul style="list-style-type: none"> <li>• Review Mitosis</li> <li>• Why Meiosis?: On-line Activity 9.5</li> <li>• Notes: Meiosis</li> </ul>	Complete Activity 9.5
12/1	<ul style="list-style-type: none"> <li>• Meio“socks”</li> <li>• Comparing Mitosis and Meiosis</li> </ul>	Read pages 192 - 197 Answer concept Check 9.5 questions
12/2	<ul style="list-style-type: none"> <li>• Finish comparing Mitosis and Meiosis</li> <li>• Genetics Wheel</li> </ul>	Complete Genetic Wheel Analysis Questions
12/3 (lab)	<ul style="list-style-type: none"> <li>• Quiz: Mitosis and Meiosis</li> <li>• “Bee-Bop” Babies</li> </ul>	Partner Analysis Questions
12/4	<ul style="list-style-type: none"> <li>• Mendel’s Story</li> <li>• Mendel’s Data</li> </ul>	Read pages 208-211 - complete reading guide
Monday 12/7 (lab)	<ul style="list-style-type: none"> <li>• On-line Activity 10.2</li> <li>• Punnet Squares: one trait crosses</li> <li>• Independent Assortment</li> </ul>	Practice Problems: One Trait Crosses
12/8	<ul style="list-style-type: none"> <li>• Lab: Probability</li> </ul>	Read pages 212-213 Complete Vocabulary Sheets (X-credit: on-line activity 10.4)
12/9	<ul style="list-style-type: none"> <li>• Two trait crosses</li> </ul>	
12/10 (lab)	<ul style="list-style-type: none"> <li>• Quiz: Mendelian Genetics</li> <li>• Activity: Blood types (Text pg 216)</li> </ul>	Complete blood type activity
12/11	<ul style="list-style-type: none"> <li>• Lab: Blood types</li> </ul>	
Monday 12/14 (lab)	<ul style="list-style-type: none"> <li>• Lab: Gene Expression (set - up)(T×t pg 217)</li> <li>• Multifactorial crosses</li> </ul>	Multifactorial crosses worksheet
12/15	<ul style="list-style-type: none"> <li>• On-line activity 10.5 (Morgan’s Fruit Flies)</li> </ul>	Read pages 220 -221 Complete chapter 10: Summary of key concepts-questions 1-10 (all 5 concepts)