

# *Drosophila* Basics Worksheet

## Data Tables

Table 1. Phenotypic count.

	Wild-type	Sepia
<b>F<sub>1</sub> Generation</b>		
<b>F<sub>2</sub> Generation</b>		

Table 2. Expected phenotypic and genotypic ratios.

	Expected Genotypic Ratio	Expected Phenotypic Ratio	Observed Phenotypic Ratio
<b>F<sub>1</sub> Generation</b>			
<b>F<sub>2</sub> Generation</b>			

## Post-Lab Questions and Analysis

- In this experiment a monohybrid cross was conducted. Using a biology textbook if necessary, draw two Punnett squares, one square representing the predicted genotypic results for crossing the P generation, the second displaying the results for crossing the F<sub>1</sub> generation.
- Refer to the Punnett squares created in question 1. Predict the expected ratios for the genotypes and phenotypes of both the F<sub>1</sub> and F<sub>2</sub> generations in the experiment. Record the results in Table 2.
- Calculate the observed phenotypic ratio from Table 1 and enter the result in Table 1. Do the observed results agree with the predictions? Explain.
  - What might have caused this result?
  - How could this have been avoided?
- While collecting flies from the F<sub>1</sub> generation, a student found that a small number of the 200 flies collected had a sepia phenotype.
  - What might have caused this result?
  - How could this have been avoided?