

Virtual Drosophila Lab:

- Start with exploration
- You're trying to solve a genetic mystery: (ABOUT A MUTATION)
 1. Is the mutant allele dominant or recessive?
 2. Is the gene for the mutation sex-linked?

Objectives:

- Students will be able to apply their understanding of genetics and heredity to a simulated laboratory environment
- Students will practice correctly using appropriate vocabulary to discuss the breeding and genetics of fruit flies
- Students will continue to develop their understanding of how to use Punnett Squares to model potential offspring genotypes and phenotypes

New Vocabulary:

- Wild type allele (+): Normal, commonly found allele
- Wild type phenotype: Normal appearance (allele might be present)
- Mutant allele/phenotype: Allele that malfunctions, potentially causing abnormal appearance
- Cross/Test Cross: *make organisms to observe possible offspring - test cross means we deliberately use homozygous recessive*
- Autosomal: A trait/gene located on one of the non-sex chromosomes (equally likely in males/females)
- Sex-linked: A trait/gene located on one of the sex chromosomes (typically more common in males)