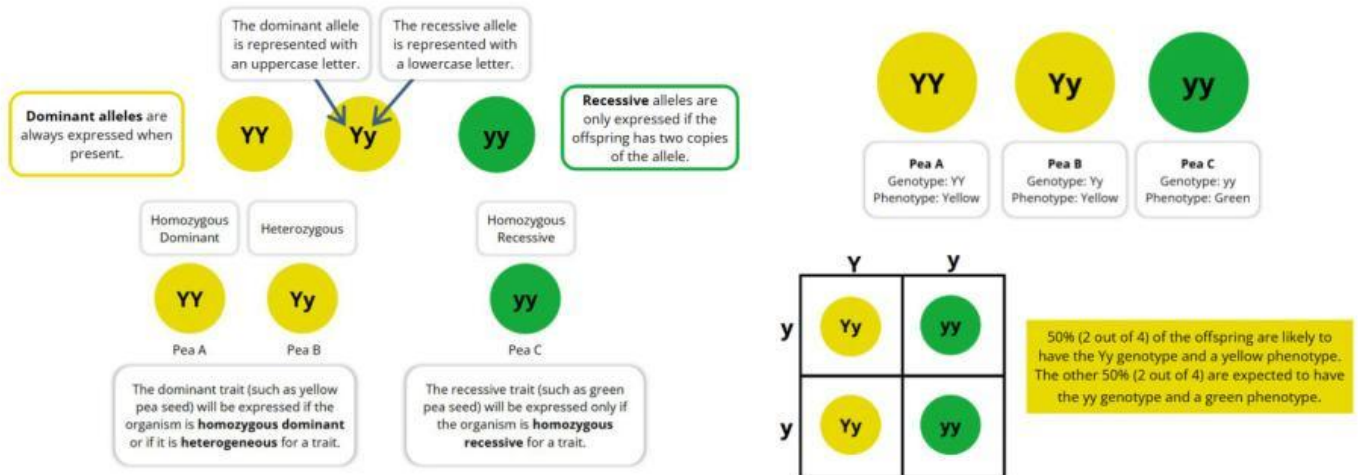




# Mendel's Rule of segregation: 1. Monohybrid Cross



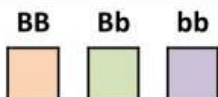
**Activity 1.** Cross Parent 1 with Parent 2 and select the correct genotype and phenotype ratios for the F<sub>1</sub> generation offspring. Allele 'B' is dominant for brown eyes and allele 'b' is recessive for blue eyes.

**1.** Parent 1: homozygous dominant

Parent 2: homozygous recessive

|          |  | Parent 1 |  |
|----------|--|----------|--|
|          |  |          |  |
| Parent 2 |  |          |  |
|          |  |          |  |

F<sub>1</sub> genotype ratios:



F<sub>1</sub> phenotype ratios:

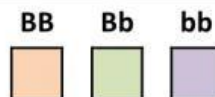


**2.** Parent 1: heterozygous dominant

Parent 2: heterozygous dominant

|          |  | Parent 1 |  |
|----------|--|----------|--|
|          |  |          |  |
| Parent 2 |  |          |  |
|          |  |          |  |

F<sub>1</sub> genotype ratios:



F<sub>1</sub> phenotype ratios:

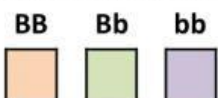


**3.** Parent 1: homozygous dominant

Parent 2: heterozygous dominant

|          |  | Parent 1 |  |
|----------|--|----------|--|
|          |  |          |  |
| Parent 2 |  |          |  |
|          |  |          |  |

F<sub>1</sub> genotype ratios:



F<sub>1</sub> phenotype ratios:

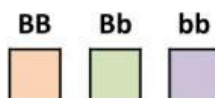


**4.** Parent 1: heterozygous dominant

Parent 2: homozygous recessive

|          |  | Parent 1 |  |
|----------|--|----------|--|
|          |  |          |  |
| Parent 2 |  |          |  |
|          |  |          |  |

F<sub>1</sub> genotype ratios:



F<sub>1</sub> phenotype ratios:

