

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Codominance and Incomplete Dominance

Image Observation 1:

How would you write the genotype?

Red Parent: \_\_\_\_\_

Blue Parent: \_\_\_\_\_

Red and Blue Offspring: \_\_\_\_\_

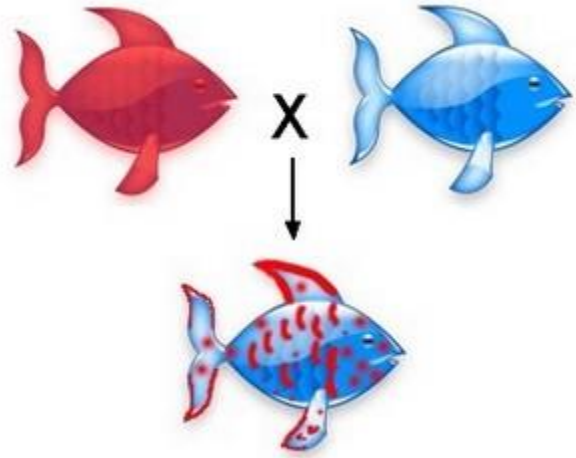


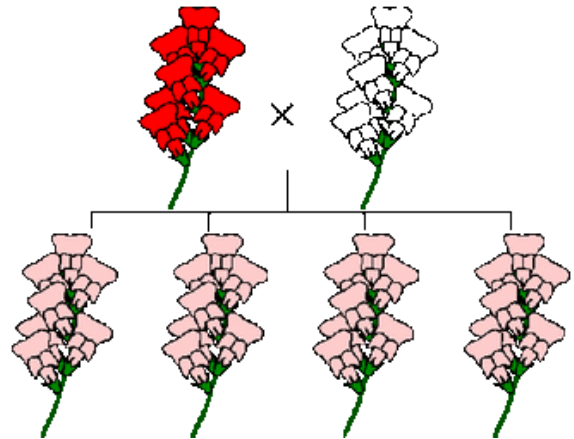
Image Observation 2:

How would you write the genotype?

Red Parent: \_\_\_\_\_

White Parent: \_\_\_\_\_

Pink Offspring: \_\_\_\_\_



## **Co-dominance and Incomplete Dominance Practice**

### **Practice 1:**

1. In parrots, yellow feathers (Y) are **incompletely dominant** with blue (B). A heterozygous parrot (BY) has green feathers. Draw a cross for a BY and a YY.




- a. What are the genotypes of the offspring? \_\_\_\_\_
- b. What are the phenotypes of the offspring? \_\_\_\_\_

## Practice 2:

2. In horses, when a brown (B) horse and a white (W) horse are bred, the offspring are white with brown mane and tail (BW). Work a cross between two white horses with brown manes and tails cattle.




- What are the genotypes of the offspring? \_\_\_\_\_
- What are the phenotypes of the offspring? \_\_\_\_\_
- What percent of the offspring will be brown? \_\_\_\_\_

## Practice 3:

3. Chickens have two alleles for feather color: black (B) and a white (W). The heterozygous (BW) is speckled black and white.
- Which phenotype is the combination of the other two? \_\_\_\_\_
  - Draw a Punnett square for a cross between a black feathered chicken and a speckled black and white chicken.




- What are the genotypes of the offspring? \_\_\_\_\_
- What are the phenotypes of the offspring? \_\_\_\_\_
- What is the ratio of genotypes?  
\_\_\_\_\_
- What is the ratio of phenotypes?  
\_\_\_\_\_

### Practice 4:

4. In Labradors, the allele for black hair (B) and the allele for yellow hair (Y) show incomplete dominance. The heterozygous condition results in a brown (BY) Labrador. Use a Punnett squares to prove your answers.


a. If an entire litter of puppies is brown and the mother is yellow, what color was the father likely to be?

\_\_\_\_\_

b. If 50% of the puppies were brown, 25% were black and 25% were yellow, what was the likely genotype of each parent?

\_\_\_\_\_ X \_\_\_\_\_




c. What must the parents be to have an entire litter of black puppies?

\_\_\_\_\_ X \_\_\_\_\_

Yellow puppies?

\_\_\_\_\_ X \_\_\_\_\_

