

**UNIT - INTRODUCTION TO ANIMAL REPRODUCTION**

Name\_\_\_\_\_

**Lesson 6: Reproduction and Genetics**

Date\_\_\_\_\_

**EVALUATION**

**Circle the letter that corresponds to the best answer.**

1. What is the unit of inheritance?
  - a. Cell nucleus
  - b. Chromosome
  - c. Deoxyribonucleic acid
  - d. Gene
2. What is the long, slender, threadlike structure used to carry inheritance?
  - a. Cell nucleus
  - b. Chromosome
  - c. DNA
  - d. Gene
3. A dog that has 39 chromosome pairs has \_\_\_\_\_ chromosomes.
  - a. 39
  - b. 58
  - c. 78
  - d. 117
4. For most species, what is the normal sex chromosome combination of the male animal?
  - a. XX
  - b. XXY
  - c. XY
  - d. YY
5. What is a trait that is suppressed by another gene called?
  - a. Dominant
  - b. Genotype
  - c. Phenotype
  - d. Recessive

**Complete the following short answer questions.**

6. How is an offspring's sex determined in mammals?

7. What is genotype? What is phenotype?

**Fill out a Punnet square to answer the following questions.**

In cattle, black coat color is dominant over red. The black gene is represented with a B and the red gene with a b. A cow has a gene pair of Bb, while the bull's is bb.

8. What is the Punnet square for coat color for the offspring of the bull and cow?
9. Of the four possibilities, how many calves would be red? How many would be black?
10. What is the genotypic ratio? What is the phenotypic ratio?