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# Dragon Genetics Web Lab

http://www2.edc.org/weblabs/Dragon/dragons.html

**Pre-lab:**

Define the following terms:

Phenotype \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Genotype \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chromosome

Gene

## Web Lab

1. How many chromosomes does a dragon have? \_\_\_\_\_\_\_\_\_\_\_
2. Which sex chromosomes show a male dragon? \_\_\_\_ female dragon? \_\_\_ Are these the same in humans? Explain.
3. List the genes located on the following chromosomes in dragons:
   1. Chromosome #1:
   2. Chromosome #2:
   3. X chromosome:
   4. Y chromosome:

\*\*\***Alleles- are different variations of a gene. For example, in humans the two alleles for earlobe shape are attached and unattached \*\*\***

1. Which genotype(s) result(s) in horns? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Is horns a dominant or a recessive trait? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. How do you know?
2. What is the genotype for two legs? \_\_\_\_\_ four legs? \_\_\_\_\_ no legs?\_\_\_ How many phenotypes are there for legs? \_\_\_\_\_\_\_\_\_\_
3. How many body colors are possible in dragons? \_\_\_\_\_\_\_\_.

List all the colors and their gene combinations below:

1. What are the genotypes for a male with NO fire? \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Circle the correct ending to the sentence. The genotype for fire in males is:
   1. pure dominant
   2. heterozygous
   3. pure recessive
3. Would a female with only one “f” gene have fire? \_\_\_\_\_\_\_\_\_\_\_ Explain