

Name _____

Date _____

Mendel and Genetics

Directions: Answer the following questions completely.

1. The _____ is a chart, used by geneticists, to help determine the chances of an offspring receiving a particular characteristic.
2. Before parents can mate successfully each one must produce special cells called _____.
3. These special cells contain _____ the normal number of chromosomes of regular body cells.
4. _____ is considered the father of Genetics.
5. DNA contains the code for every _____ that an organism can produce.
6. According to Mendel, _____ pairs separate during gamete formation.
7. Mendel called traits that appeared more often than its alternate _____.
8. This trait or characteristic is assigned a(n) _____ letter to distinguish it from its recessive allele.
9. If two alleles for a characteristic are identical the organism is said to be _____ for that trait.
10. Another word for hybrid is _____.
11. The _____ is the outward appearance of an organism traits.
12. Tt or BB represents the _____ of an organism.
13. An alternate form of a gene is called its _____.

Read the following problem, solve it by working out the Punnett square, and then answer the questions that follow.

Mate a rooster that is homozygous for curly feathers with a hen that is heterozygous for straight feathers. **Straight feathers are dominant to curly feathers.**

1. Choose a letter to represent the allele curly feathers _____ and one for the allele straight feathers _____.
2. Write out the genotypes of each parent below:
3. Complete the Punnett Square for this cross.
4. Write the genotypic and phenotypic ratios of the potential outcomes.