

Name _____ Date _____ Period _____

Punnett Square Practice Websites

Matching: Test your understanding of the terms on the right by matching each to the description on the left.

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|---|-----------------|
| _____ 1. Having all the same genes for a trait. | A. dominant |
| _____ 2. Having mixed or different genes for a trait. | B. recessive |
| _____ 3. The gene or trait that is masked (covered up) | C. heterozygous |
| _____ 4. The gene or trait that masks (covers up another) | D. homozygous |
| _____ 5. The genetic makeup of an individual | E. phenotype |
| _____ 6. The physical or outward expression of genes | F. genotype |

1. Open the *Honors Biology Page* website.
2. Click on Unit 5 *Genetics and Biotechnology*.
3. Look at the column titled *WebLinks*. Review the following websites in the following order.
4. Check off the box below when you have completed the tasks on each website.

Punnett Squares

- Click on the **Punnett Squares** link (please be patient – the page may take a while to load)
- Answer the following questions as you go.

1. Chickens:

- a. Which allele is dominant? _____ Dominant Feather color: _____
- b. Which allele is recessive? _____ Recessive Feather color: _____
- c. Draw the chicken Punnett square below. (Bb x Bb)
- d. What is the probability these chickens will have brown chicks (offspring)? _____
- e. What is the probability these chickens will have yellow chicks (offspring)? _____

2. Lemmings:

- a. Which allele is dominant? _____ Dominant fur color: _____
- b. Which allele is recessive? _____ Recessive fur color: _____
- c. Draw the lemming Punnett square below. (Aa x Aa)
- d. What is the probability these lemmings will have brown offspring? _____
- e. What is the probability these lemmings will have albino offspring? _____
- f. What is the probability these lemmings will have carrier offspring? _____ (they “carry” the allele for albinism, but are not albino - heterozygous)
- g. You want to breed albino lemmings. What are the genotypes of the lemmings you chose to cross to ensure the probability of albino offspring is greater than 25%?
_____ X _____ What % of offspring are albino? _____ %
