

Furry Family Pre-Test Questions

Name: _____ Period: _____ Date: _____

1) When will a recessive trait show its effect?

- a. Even if no recessive genes for that trait are present
- b. In the presence of one recessive gene
- c. When two recessive genes for a trait are present
- d. Only if the mother has the recessive gene

2) Which of the following describes a phenotype?

- a. An observable product of an organism's genetic makeup
- b. The number of chromosomes an organism possesses
- c. The genes contained in an organism's genetic makeup
- d. The number of traits an organism possesses

3) What are Punnett squares used for?

- a. Make genetic predictions
- b. Show an offspring's exact traits
- c. Combine strands of DNA
- d. Clone a portion of an organism's DNA

4) Using the Punnett square below, choose the probability that the recessive trait will emerge

- a. 100%
- b. 75%
- c. 25%
- d. 0%

	F	F
F		
f		

- 5) An offspring's Punnett square is shown below. The mother is known to have two recessive genes for brown eyes. What is the father's genotype for brown eyes?

- a. BB
- b. Bb
- c. bb
- d. bB

		Mother	
		b	b
F a t h e r	?	Bb	Bb
	?	bb	bb

- 6) If a baby zebra has a two recessive genes for short legs which of the following may be true?
- a. The father has two recessive genes. The mother has two dominant genes.
 - b. The father has one recessive gene and one dominant gene. The mother has two dominant genes.
 - c. The father has two dominant genes. The mother has two dominant genes.
 - d. The father has two recessive genes. The mother has one dominant gene and one recessive gene.
- 7) Which of the following genotypes will have the greatest chance of producing the most offspring that have recessive traits?
- a. BB and BB
 - b. BB and Bb
 - c. Bb and Bb
 - d. bb and bb
- 8) A scientist crossed a pea plant with yellow wrinkled peas with a pea plant with green smooth peas. The resulting offspring were yellow smooth peas. What does this indicate?
- a. Offspring acquire traits randomly
 - b. Offspring never inherit traits from their parents
 - c. Offspring inherit traits from both parents
 - d. Offspring inherit traits from only one parent
- 9) Which of the following would **NOT** be true of a trait?
- a. A trait is a feature that any organism inherits
 - b. A trait is given to you by your environment
 - c. A trait is located in your genotype
 - d. Traits are passed from parents to their offspring

10) Which of the following is **NOT** an example of a trait a human would receive from their parents?

- a. Eye Color
- b. Facial Features
- c. Personality
- d. Height

Furry Family Pre-Test Answers

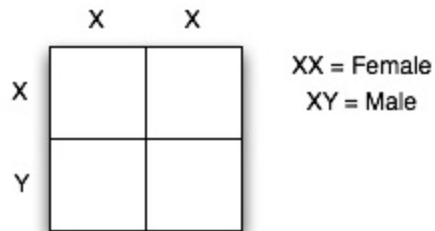
1. C
2. A
3. A
4. D
5. B
6. D
7. D
8. C
9. B
10. C

Furry Family Post Test Questions

Name: _____ Period: _____ Date: _____

- 1) When will a dominant trait show its effect?
 - a. Even if no dominant genes for that trait are present
 - b. In the presence of one dominant gene
 - c. When two recessive genes for a trait are present
 - d. Only if the mother has the trait
- 2) Which of the following describes a genotype?
 - a. An observable product of an organism's genetic makeup
 - b. The number of chromosomes an organism possesses
 - c. The genes contained in an organism's genetic makeup
 - d. The number of traits an organism has
- 3) Which of the following is the passing of traits from parents to offspring?
 - a. Genotype
 - b. Heredity
 - c. Characteristics
 - d. Mutation
- 4) Use the Punnett Square below, what is the percent chance that the above couple will have a female offspring?

- a. 0%
- b. 25%
- c. 50%
- d. 100%



5) Using the Punnett Square below, answer the following question:

	B	b	
B	BB	Bb	BB or Bb = Black Fur bb = White Fur
b	Bb	bb	

Which of the following is the correct phenotype for the parents' fur?

- a. Both parents have white fur
 - b. Both parents have black fur
 - c. The father has black fur and the mother has white fur
 - d. The mother has black fur and the father has white fur
- 6) In dogs, assume that black fur is dominant and brown fur is recessive. A male black dog and a female brown dog have a puppy, which is brown. Which most likely describes the genes of the parent dogs?
- a. Both parents carry the recessive genes
 - b. The male parent carries the recessive gene, while the female carries the dominant gene
 - c. The female parent carries the recessive gene, while the male carries the dominant gene
 - d. Neither parent carries the recessive gene; the brown fur was a mutation
- 7) What is the probability of two parents that are BB and Bb to have an offspring with a recessive trait?
- a. 0%
 - b. 25%
 - c. 75%
 - d. 100%

8) A population of mice lives in northern Canada where there is snow most of the year. These mice are hunted by other animals. Which feature would be best for these mice to inherit from their parents, so they are **NOT** all killed off by their predators?

- a. Immunity of sickness
- b. White fur color
- c. A large amount of fur
- d. A good sense of smell that can be used to find food sources.

9) Suppose you own an aquarium stocked with 10 fish, all with green scales. How could you best explain the birth of a yellow fish?

- a. The yellow fish has a dominant gene
- b. The yellow fish has a recessive gene
- c. The yellow fish's scales were dyed by food coloring in the water
- d. The yellow fish has two recessive genes

10) Two parent bunnies have recessive traits for white fur. What genotype will all of the offspring have?

- a. FF
- b. Ff
- c. fF
- d. ff

Furry Family Post Test Answers

1. B
2. C
3. B
4. C
5. B
6. C
7. A
8. B
9. D
10. D