

Name _____
Date _____ Period _____

Genetics Review (Test on Unit 3)

Directions: Use your study guide and notes (Genetics and DNA Notes) to complete the review.

Vocabulary Review: Matching

- _____ 1. a set of instructions for a trait
_____ 2. an organism that has the same alleles for a gene
_____ 3. the shape of DNA
_____ 4. something that causes a mutation
_____ 5. a tool used to find the possible combinations of alleles
_____ 6. a mistake in the copying of DNA that changes the order
_____ 7. a trait that stays hidden unless both genes are
_____ 8. the codes in DNA
_____ 9. different forms of a trait
_____ 10. the trait that shows up for the genes
_____ 11. the information inside the nucleus that has genes
_____ 12. a characteristic
_____ 13. a trait that will always show itself
_____ 14. the genes present for a trait
_____ 15. an organism that has different alleles for a gene

Genetics and DNA Notes Review: Fill in.

16. DNA is found on _____ in the nucleus of a cell.
17. Chromosomes come in _____ (humans have _____).
18. Genetic instructions (DNA) determine an organism's _____.
19. One chromosome comes from each _____.
20. An organism has _____ genes for each trait.
21. Although you have two alleles for every trait, usually only one _____ will show up.
22. _____ letters are used to represent a dominant gene.

23. _____ letters are used to represent a recessive gene.
24. Some traits are determined by _____ gene.
25. Many traits are determined by many _____ genes.
26. Plants and animals have _____ of genes.
27. DNA is found in the _____ of a cell on its chromosomes.
28. Genes are _____ for the cell.
29. Genes must have _____ on how to do all the cell activities.
30. Genes must be able to be _____ every time a cell divides.
31. DNA makes a shape that looks like a _____ or “double helix”.
32. DNA is made of a _____, a _____ and a _____.
33. The Four bases are: _____
34. Adenine pairs with _____ and Guanine pairs with _____.
35. The DNA is a _____ for all living things for any trait that is determined by genes.
36. A mutation is when the order of the _____ changes.
37. A mutagen is something that causes a mutation like _____.

Review: Fill in. Heredity and Genetics are the same thing!

38. Organisms that reproduce _____ have the same DNA.
39. Organisms that reproduce _____ have the half of their DNA from each parent.
40. _____ reproduction gives a species more variety.
41. Complete the following Punnett Square between a hybrid black horse and a purebred recessive brown horse.

42. What are the possible genotypes?

43. What are the possible phenotypes?

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