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Biology: _____
Date: _____

Unit VII
Biology – Heredity
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VII

Video: Genetics - The Molecular Basis of Heredity

1. Each of us shares the characteristics of our species but we all have individual _____.
2. Multi-cellular organisms have hereditary information contained in the _____ of the cells.
3. DNA is made up of two long strands of _____ and phosphates.
4. Pairs of bases resemble a _____.
5. Each DNA molecule is packaged into a _____.
6. Shrimp have _____ pairs of chromosomes.
7. Each strand of DNA consists of a series of units called _____.
8. Cytosine represented by the letter _____.
9. Thymine, _____.
10. Adenine, _____.
11. Guanine, _____.
12. A only goes with _____.
13. C only goes with _____.
14. Genes control _____
15. Proteins come in a wide range of shapes and sizes and have many _____.
16. When cells divide it is vital that all the genetic information is _____ to the new cells.
17. During Mitosis one cell divides to become _____.
18. Single cells such as bacteria only reproduce themselves using _____.
19. If multi-cellular organisms only used mitosis to reproduce all of their offspring would be _____.
20. Two sex cells are fused to make a new cell in a process called _____.
21. Meiosis occurs in the _____ organs of the male and female.
22. By the end of meiosis there are _____ gamete cells that each contain _____ of the necessary DNA.
23. Each parent contributes half of the _____ material of the new individual.
24. Some mutations occur as a result to exposure to physical or _____ agents.
25. Some mutations have led to genetic _____.
26. The human body has _____ cell types.
27. _____ cells have the ability to develop into many different kinds of cells.
28. It is now possible to genetically modify plants, animals and even _____.

Quiz

29. Where is the hereditary information of an organism contained?
30. Human beings have 46 chromosomes in every cell. T or F
31. Approximately how many genes are there in the human genome? _____
32. The process of cell division is called Mitosis. T or F
33. Single-celled prokaryotic cells use Meiosis to reproduce. T or F
34. When fertilization occurs, one half of the DNA comes from the _____ and one half from the _____.
35. Dominant traits are ALWAYS expressed in the next generation. T or F
36. How does cancer spread? _____
37. What is the name of cells that have the ability to develop into different kinds of cells? _____
38. Why did scientists undertake the human genome project?