

Name _____ Per _____ Date _____

DNA Replication Review Worksheet

1. What does DNA stand for?
2. What is DNA's primary function?
4. What are the subunits called that make up DNA?
5. Name the 3 parts of a DNA nucleotide.
6. Sketch and label a DNA nucleotide.
7. Name the 4 nitrogen bases on DNA.
8. What is the difference between a purine & a pyrimidine?
9. Name 2 purines.
10. Name 2 pyrimidines.
11. Who is responsible for determining the structure of the DNA molecule & in what year was this done?
12. The model of DNA is known as a _____ because it is composed of two _____ chains wrapped around each other.
13. What makes up the sides of a DNA molecule?
14. What makes up the "steps" of a DNA molecule?
15. How did Rosalind Franklin contribute to determining the structure of DNA?
16. What type of bonds holds the DNA bases together? Are they strong or weak bonds?
17. What makes up the "backbone" of the DNA molecule?
18. On DNA, a _____ base will always pair with a _____ base.
20. How many base pairs are in a full turn or twist of a DNA molecule?
21. Name the complementary base pairs on DNA.

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23. How does the nucleotide sequence in one chain of DNA compare with the other chain of DNA?
24. Why must DNA be able to make copies of itself?
25. Define DNA replication.
26. What is the first step that must occur in DNA replication?
27. What acts as the template in DNA replication?
28. What is a replication bubble?
29. What enzymes help separate the 2 strands of nucleotides on DNA? What bonds do they break?
30. What is the function of DNA polymerases?
31. _____ are joined to replicating strands of DNA by _____ bonds.
32. If the sequence of nucleotides on the original DNA strand was A - G - G - C - T - A, what would be the nucleotide sequence on the complementary strand of DNA?
34. Why does DNA replication take place at many places on the molecule simultaneously?
35. When replication is complete, how do the 2 new DNA molecules compare to each other & the original DNA molecule?
37. Sketch & label DNA replication.