DNA oral quiz questions

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1. What is DNA?
2. Who has it and where is it found?
3. What are the three components of a DNA nucleotide?
4. What does each of the three components of a DNA nucleotide look like?
5. What are the four nitrogenous bases found in the DNA molecule?
6. Of the four bases, which other base does adenine most resemble in shape?
7. Thymine most resemble in shape?
8. Describe the resemblance between each of these pairs.
9. How does each type of nitrogenous base differ from the others?
10. What are the two general types of Nitrogenous base?
11. What do the two types of nitrogenous bases look like?
12. If DNA is ladder-like, which two molecules of a nucleotide form the sides of the ladder?
13. To which molecule does each base attach?
14. Name the molecules of the nucleotide that form the ladder’s rungs.
15. What is the sequence of bases on one side of your DNA model?
16. What is the sequence of bases on the other side of your DNA model?
17. In a real DNA molecule, what kinds of bonds hold the complementary nitrogenous bases together?
18. Why are they called “complementary?”
19. Only two combinations of base pairings are possible for the rungs. Name these molecule combinations.
20. Adenine and Guanine are known as what kind of nitrogenous bases?
21. Cytosine and Thymine are known as what kind of nitrogenous bases?
22. The hydrogen bond always occurs between what two general kinds of bases?
23. If four guanine bases appear in a DNA model, how many cytosine bases should there be?
24. If the following are the bases on the left side of a DNA molecule, list the bases that would make up the right side of a DNA molecule.
    1. Thymine
    2. Adenine
    3. Guanine
    4. Cytosine
25. Compare your model with your partner’s model. What do you notice about the sequence on each model?
26. When this DNA molecule replicates what will be the first thing that happens to it?
27. What enzyme does this?
28. Is this new molecule any different than the original?
29. How did the nucleotides/strand get here? (What enzyme)
30. What model of replication is this? What is it called when the template strand is from the original DNA and the replicated strand is newly created?
31. Draw and label a strand of DNA with 4 pairs of nucleotides
32. Draw out each step of DNA replication