DNA Quiz Answers

- 1. Deoxyribonucleic Acid
- 2. DNA and Genes
- 3. **PART 1:** Nucleotides **PART 2:** Phosphoric Acid, Deoxyribose Sugar, Nitrogenous Bases
- 4. Cytosine and Guanine pair together. Thymine and Adenine pair together.
- 5. Double Helix
- 6. To protect itself
- 7. Phosphoric Acid and Sugar. The rungs are made of the nitrogenous bases.
- 8. To protect itself and to save space.
- 9. When it is going to be replicated.
- 10.
- 1.) G
- 2.) T
- 3.) A
- 4.) G
- 5.) G
- 6.) C
- 11
- A) Chromosome
- B) Nucleus
- C) Cell
- D) Base pairs
- E) DNA
- 12. Every time a cell divides.
- 13. To make more DNA, so cells can grow and repair.
- 14. A DNA molecule is split down the middle and when the original molecules are exposed, complementary nucleotides are added to each side of the ladder. There are two new DNA molecules, half of each is old DNA, while the other half of each is new DNA.

15. **Codon**, **One**

- 16. Sequences of amino acids
- 17. It starts out as DNA and then a piece of the DNA is copied, which is RNA. The RNA is sent out to the ribosomes, every three bases (a codon) sequence for an amino acid and the chain of amino acids form a protein.
- 18. The ribosome is the site of where the proteins are built/ made.
- 19. Substitution
- 20. Insertion
- 21. Deletion
- 22. A mutagen is anything that causes a mutation. Some examples include: Radiation from X-rays and (UV) Ultraviolet Radiation, asbestos, and the chemicals in cigarette smoke.
- 23. No, actually most aren't harmful at all. (Mutations may help an individual, harm an individual, or cause no change at all.)
- 24. He found that adenine pairs (equals) with thymine and that cytosine (equals) pairs with guanine.
- 25. She used X-ray diffraction to make images of DNA molecules(which showed that DNA has a spiral shape.)

- 26. Watson and Crick They came to a conclusion that DNA is a long, twisted ladder.
- 27. Genetic engineering. An example could be seedless grapes as well as other foods, fabrics, and drugs.
- 28. DNA fingerprinting is using DNA as a way of identification. It can be used in crimes, finding relatives, and other things.
- 29. You would still have a product, but it would still contain protein since meat tenderizer breaks the protein away from the DNA.
- 30. Any cell from a living thing. Examples can include: skin cells, blood, fruits, and vegetables.
- 31. Anything not living such as: rocks, metals, plastic, and styrofoam.
- 32. It captures the fats and proteins and breaks open the membranes so the DNA can escape from the cell.