

**Physical Science**  
**Week 9: Text pp. 185-191**

**True (+) or False (0): Write all answers on the answer sheet.**

**Fill in the answers on the answer sheet:**

1. Hair is composed of fibrous protein.
2. Enzymes initiate or regulate chemical reactions in living cells.
3. Meat tenderizer may contain an enzyme called amylase.
4. Lipids contain the plans that guide the construction of proteins in a cell.
5. DNA determines you physical characteristics.
6. DNA controls heredity.
7. DNA is a carbohydrate molecule.
8. A DNA molecule looks like a twisted ladder.
9. RNA always stays in the nucleus of a cell.
10. A random change or mistake in the DNA code is called a mutation.
11. Mutations always improve a living organism.
12. Some mutations are passed on from generation to generation.
13. Evolutionists believe that mutations caused the development of all forms of life on earth.
14. The most important carbohydrate fuel in the body is fat.
15. Glucose is burned in special parts of the cell called ribosomes.
16. Cellular respiration does not mean breathing.
17. The main purpose of cellular respiration is to release energy.
18. The “storage batteries” of the cell are ATP molecules.
19. Only about 55% of the energy from glucose is captured by ATP.
20. People with a high rate of metabolism tend to be overweight.

**Fill in the answers on the answer sheet:**

1. The 2 types of proteins are \_?\_ and \_?\_.
2. Enzymes can be thought of as \_?\_.
3. Amino acids are linked together into proteins by \_?\_.
4. Most protein chains consist of how many amino acids?
5. Nucleic acids contain the plans that guide the construction of all \_?\_ in the cell.
6. DNA controls the passing of \_?\_ from one generation to another.
7. Your body cells have how many DNA molecules?
8. DNA is short for \_?\_.
9. Name one thing your DNA determines.

10. Double helix means \_?\_.
11. A segment of DNA that contains the code for a specific characteristic is called a \_?\_.
12. Name one of the genetic diseases.
13. What is the “messenger” of the cell?
14. Name one factor that can cause a mutation.
15. Scientific observation has established that mutations are almost always \_?\_.
16. Every chemical reaction in a cell causes some energy to be lost as \_?\_.

**Definitions- write the definitions for these terms on the answer sheet and be able to explain them next week from memory in your own words .**

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|------------|-------------------------|
| 1. enzymes | 5. mutation             |
| 2. DNA     | 6. cellular respiration |
| 3. gene    | 7. ATP                  |
| 4. RNA     | 8. metabolism           |