**Topic 4: DNA Activity 1**

**(Part 1)**

**Directions:**

Using any of the materials provided, create a 3-D model of DNA. The parts of your model should either be labeled or color coded (with a key provided). Then, using any resources available to you, answer the following questions:

1. Who first identified and isolated DNA? When did this happen?

2. Who is given credit for identifying the structure of DNA? When did this happen?

3. Whose experimental information did the scientist(s) from question 2 use? Why are they not given credit for “discovering DNA”?

**Topic 4: DNA Activity 1**

**(Part 2)**

**Directions:**

Go to the following website: <http://www.pbs.org/wgbh/aso/tryit/dna/#>

Click on: *DNA Workshop Activity* (you may need to allow shockwave to run)

Click through and complete DNA Replication and Protein Synthesis. Answer the questions below as you complete the tutorials (make sure you read the text boxes that come up…there’s helpful information in them!). Remember to answer with clarity and precision (use the correct terminology!).

**Review Questions:**

1. What happens in a real cell to start DNA replication?

2. How do enzymes play a role in DNA replication?

3. List the nucleotides found in DNA. Match each with its complementary base pair.

4. Approximately how many base pairs are in 46 human chromosomes?

5. Describe the first step of protein synthesis. What is the end result?

6. Describe the second step of protein synthesis. What is the end result?