Science 9

Create a DNA Model

Name:
Date:
Block:

Objective:
To create a model of DNA in order to visually see the structure of DNA

Instructions:
1. Write the sequence of your DNA strands and its matching base-pair. Your model MUST be at least 10 base pairs long. ***Be sure to have your teacher check your base-pairs

   Strand one:

   Strand two:

2. Gather the following materials:
   - String (the backbone of the DNA)
   - Masking tape (the bases)

3. Create your DNA model using the sequence of base-pairs that you had written above.
4. On your model, be sure to label…
   a. The sugar and phosphate backbone
   b. All 4 bases (Adenine, Cytosine, Guanine, Thymine) using the abbreviations A, C, T, and G.
   c. Choose two different base pairs and write the full name of the bases
      ****Be sure to colour code your bases!
      > Thymine = red
      > Adenine = green
      > Guanine = purple
      > Cytosine = blue

Questions:
1. What does DNA stand for?

2. What is the base-pair rule?

3. What three parts make up a nucleotide?

4. Why is DNA described as a double helix?

5. How are the strands of DNA held together?