

Name: \_\_\_\_\_

### DNA PAPER MODEL: HOMEWORK QUESTIONS

#### **Analysis Questions:**

1. What base does adenine pair with?
2. What base does guanine pair with?
3. Describe the shape of the DNA molecule. Draw a picture if it helps!

#### **Connections:**

1. What are the three components of a nucleotide? (*HINT: What were the three components used in putting the model together? Remember that Adenine, Guanine, Cytosine, and Thymine are all Nitrogen Bases!*) Look in your book if you are still unsure.
2. What is the name of the sugar molecule in the DNA helix?
3. Suppose you know that the sequence of bases on one DNA strand (one side of the DNA ladder) is AGCTCAG. What is the sequence of the bases on the opposite strand?
4. Assume that a 100-bair pair DNA double helix contains 45 cytosines. How many adenines are there?

#### **Conclusion:**

Write a summary of the structure of DNA that (at least) includes the terms: base, sugar, phosphate, nucleotide, (base) pair, and helix.

## HALF-A-HELIX

Complete the DNA helix by identifying which base pair should be found on the other half of the strand.

Adenine	
Thymine	
Cytosine	
Cytosine	
Adenine	
Guanine	
Guanine	
Thymine	