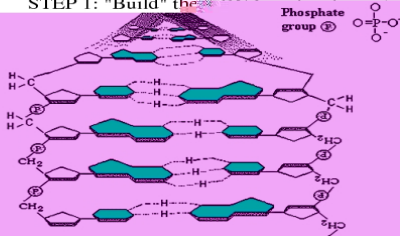


**SAY IT WITH DNA: PROTEIN SYNTHESIS WORKSHEET: Practice Pays**

Having studied the process by which DNA directs the synthesis of proteins, you should be ready to decode some DNA "secret" messages. To do this, you must follow the procedure of protein synthesis as this is taking place right now in your cells; no short cuts! Practice these steps by following and finishing the **partially solved message** below.

STEP 1: "Build" the



four different bases), what are the names of

purines and pyrimidines. Purines have \_\_\_\_\_ ring(s) in their structure, and pyrimidines have \_\_\_\_\_ ring(s) in their

a. \_\_\_\_\_

b. \_\_\_\_\_

3. DNA is a **polymer**, which means that it is made up of many repeating single units (**monomers**). What are the monomers called?

\_\_\_\_\_

4. The "backbone" of the DNA molecule is made up of two components, what are these?

c. \_\_\_\_\_

d. \_\_\_\_\_

5. There are four different variations of these monomers (for those bases)

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

6. These bases are of two different types of molecules: purines have \_\_\_\_\_ ring(s) in their structure, and pyrimidines have \_\_\_\_\_ ring(s) in their structure.

7. The two bases that are purines are:

a. \_\_\_\_\_

b. \_\_\_\_\_

8. The two bases that are pyrimidines are:

a. \_\_\_\_\_

b. \_\_\_\_\_