**Sci 9 DNA Replication WS** Name:

Block:

1. Why does DNA replicate?
2. Why is DNA replication is considered “semi-conservative”?
3. When does DNA replication occur in a cell?
4. Where does DNA replication occur in a cell?

True or False. If statement is false, correct the statement

1. \_\_\_\_\_ Guanine and cytosine are referred to as phosphates.
2. \_\_\_\_\_ DNA is in the shape of a helix.
3. \_\_\_\_\_ A nucleotide is made up of a sugar, phosphate and two nitrogen bases.
4. \_\_\_\_\_ Replication is performed prior to cell division.
5. \_\_\_\_\_ Adenine always pairs with Guanine.
6. \_\_\_\_\_ Complementary base pairing matches up with complementary sugars.
7. \_\_\_\_\_ The sides of the DNA molecule are made up of repeating nitrogen bases and sugars.
8. \_\_\_\_\_ The letter that make up the DNA molecule code for genes.
9. \_\_\_\_\_ Replication results in two strands of DNA, each of which has half of the original strand.
10. \_\_\_\_\_ Covalent bonds hold nitrogen bases together, forming the rungs of the DNA ladder.

Put the following sentences in correct order:

1. \_\_\_\_ Two new molecules of DNA are created.
2. \_\_\_\_ DNA unzips
3. \_\_\_\_ Cell starts into the mitosis phase of cell cycle
4. \_\_\_\_ Free-floating nucleotides pair up with exposed nitrogen bases.

**Complete the statement:**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, guanine, cytosine, and thymine are four nitrogenous bases.
2. In DNA, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ always forms hydrogen bonds with guanine.
3. The sequence of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ carries the genetic information of an organism.
4. The process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_produces a new copy of an organism’s genetic information.
5. The double coiled shape of DNA is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Show the complementary base pairing that would occur with this original strand of DNA:

C A G T T A C G A T G A