DNA Structure and Synthesis Checktest

1. Other than the base molecule, name the parts of a DNA nucleotide by drawing a labelled diagram.

2. Name the four base molecules that a DNA nucleotide can possess.

3. State the complementary base molecule pairings.

4. Between which two molecules does a strong chemical bond exist, making up the "backbone" of a DNA molecule?

5. What is the term used to describe the twisted nature of a DNA molecule?

6. How many strands make up a DNA molecule?

7. State the location of DNA synthesis.

8. What **two** things does a DNA molecule have to do before replication will occur?

9. Other than the free nucleotides and the DNA strands themselves, name **two** substances that must be present for replication to occur.

10. During replication, what type of bonds are formed between the complementary base pairs?

11. Why is DNA described as being semi-conservative in nature?

12. Why is DNA replication so important to an organism?

13. Outline step by step what happens during DNA replication

14. What percentage of thymine molecules are present on a DNA molecule of 1000 bases, if 200 of the base molecules are cytosine?