**DNA – the Blueprint of life Name: .**

 **Block: .**

1. DNA stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Describe the structure of the DNA in point form.

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1. **Label** and **Colour** the structure of the DNA below.

Words to label: Phosphate, Sugar, Phosphate-sugar backbone, nitrogen base, nucleotide, hydrogen bonds, covalent bonds, Adenine, Thymine, Guanine, Cytosine

1. If one side of the DNA has the code ATTGCGGATCGTGAATT, what is the complimentary code on the other side of the DNA ?
2. What is the name of DNA that is stored in a condensed form in the nucleus of the cell?
3. What is a gene?
4. What is an allele?
5. How are dominant and recessive alleles related?
6. If the code for purple flowers is GGCGGTATGC and the code for white flowers is CCGTTATTAT, then
	1. Which combination of the alleles above produces purples flowers? (write combinations below)
	2. Which combinations of the alleles above produces white flowers? (write combinations below)
7. Compare Mitosis and Meiosis briefly below. Use the words haploid and diploid in your answer.