**Compare and contrast a DNA and RNA molecule. Include a diagram.**

**List the steps involved in DNA Replication. When does this process occur?**

**Name the steps involved in the process of translation. Indicate where this occurs:**

**Name some proteins made by the cell and describe their function in the body:**

**Compare and contrast nuclear DNA and mitochondrial DNA:**

**What is gene expression?**

**What is the difference between acetylation and methylation? Describe both processes:**

**Draw a labelled diagram of mitosis. When does it occur?**

**Define the following words:**

**Tumour, Malignant, Metastasis, benign and carcinogen**

**What is the process of cell differentiation?**

**Define the following words:**

**Gene, allele, dominant, recessive, homozygous, heterozygous, phenotype, genotype**

**Describe using examples the difference between Co-dominant inheritance and Incomplete dominance:**

**ABO blood groups are an example of inheritance that has multiple alleles. List the genotypes and phenotypes of the ABO blood groups below:**

**Describe the mode of inheritance for mtDNA**

**Describe the process involved in making a DNA fingerprint. Why are DNA profiles used? What are some ethical considerations regarding DNA profiling?**

**Name and describe the sources of variation:**