ENZYMATIC – For the acceleration of reactions. Enzymes are specialised proteins. They are catalysts. This is because they speed up chemical reactions that are thermodynamically unable to occur without being degraded themselves. They are highly specific.

STORAGE – of molecules of amino acids

HORMONAL – for the coordination of processes in the body

RECEPTIVE – for responding to chemical stimuli

CONTRACTS/MOTORS – for movement

DEFENSIVE – for protection against disease and pathogens

STRUCTRE – for support

TRANSPORT – for the movement of substances around the body

NUCLEIC ACIDS

Nucleic acids make up deoxyribonucleic acid (DNA) that is stored in the nucleus. It holds all the genetic information of a cell. DNA is required for protein synthesis. In protein synthesis, double stranded DNA is converted into single stranded RNA, which then becomes mRNA that can be transcribed in the cytoplasm to produce the protein.

DNA is a double stranded molecule. It is known as an anti-parallel double helix. Both DNA and RNA are made up of 3 molecules: PHOSPHATE, SUGAR and NITROGENOUS BASES. Nitrogenous bases can be PURINES (A and G) or PYRIMIDES (C, T and U)

In DNA, complementary bases pair up and form hydrogen bonds. This stabilizes the molecule. A always pairs with T and C always pairs with G. In RNA, T changed to a U and when it pairs up to form mRNA, it follows the some pairing system as DNA. RNA, being single stranded, is a much more flexible molecule and can create more variation.