

What are the main similarities between DNA and RNA cells?

Similarities between DNA and RNA

DNA and RNA are both molecules containing the genetic information that is necessary for life. DNA is an abbreviation for deoxyribonucleic acid and RNA is an abbreviation for Ribonucleic acid. Both molecules are composed of nucleotides, which are chemical structures consisting of a sugar, a phosphate, and a nitrogenous base. Nucleotides are linked by alternating sugar and phosphate bonds. Lets see some of the similarities between DNA and RNA here on this page:

DNA contains the instructions to create proteins, but it does not make proteins itself. DNA is located in the nucleus, which it never leaves, while proteins are made on ribosomes in the cytoplasm. So DNA needs a messenger to bring its instructions to a ribosome located outside of the nucleus. DNA sends out a message, in the form of RNA (ribonucleic acid), describing how to make the protein. All three RNAs are nucleic acids, made of nucleotides, similar to DNA.

Similarities between DNA and RNA

1. Both DNA and RNA are made up of monomers called nucleotides.
2. Both RNA and DNA both have 3 nitrogenous bases: Adenine, Cytosine and Guanine.
3. They are both necessary for the cell to produce proteins.
4. DNA and RNA both contain pentose sugars.
5. DNA makes mRNA which then is translated into protein.