

DNA

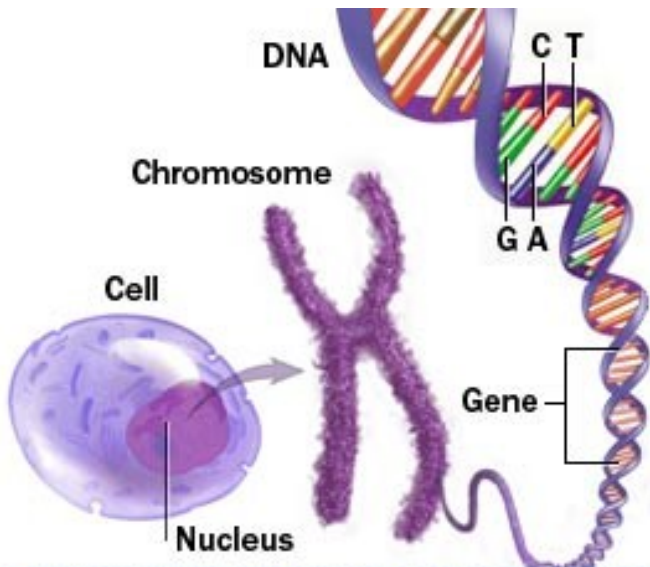
1. What is it?
2. Where is it found?
3. What does it look like?
4. What does it do?

DNA = DeoxyriboNucleic Acid

DNA directs the growth and activities of a living organism by directing the production of proteins.

The long DNA molecules are usually held in tightly coiled structures called chromosomes

Small sections of DNA located on a chromosome, which code for transfer of genetic information, are called genes



DNA STRUCTURE



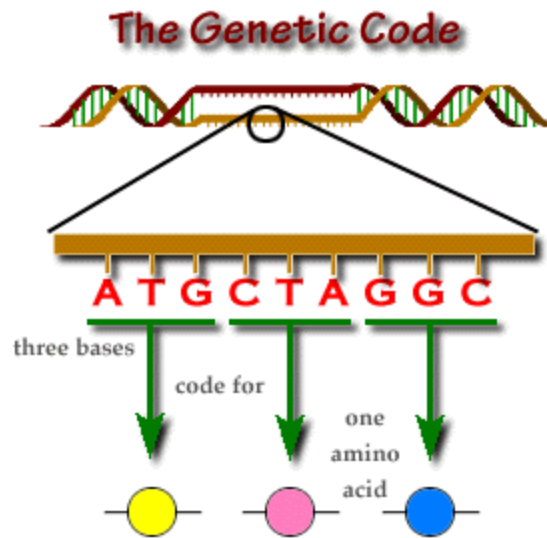
If the DNA is unwound, it is in the shape of a **ladder**.

The DNA molecule consists of a **double helix**

The building blocks of the DNA are called **nucleotides (A, T, C, G)**.

Genetic Code

Genes use a code based on groups of three nucleotides, called "codons", to direct the production of proteins



There are 64 different codons in the genetic code, and they specify for 20 different amino acids which are the building blocks of the proteins

Genetic Code

Task

Codons code for amino acids which are the building blocks for proteins. Each amino acid is represented by a letter of the alphabet.

- 1) Use the table and the space provided in your worksheet to match your name with the right codon for each letter.
- 2) Now you have your name in genetic code. Use it as a template in order to write the second strand of DNA.
- 3) Use the following colour code to match the sequence of letters (nucleotides) to the beads and make your own DNA bracelet. **A, T, G, C**

What features your bracelet has to have in order to be fairly called DNA bracelet?