

DNA: The genetic material

Deoxyribonucleic acid (DNA) contains all the instructions needed to make all of the different kinds of cells in your body. DNA is made of four different nitrogen bases that are arranged to code for all the instructions a cell needs. The four nitrogen bases are:

1. adenine (A)
2. thymine (T)
3. cytosine (C)
4. guanine (G)

A gene is a long section of DNA that codes for a characteristic like eye colour or hair colour. Many genes together make a chromosome. DNA can make perfect copies of itself so all your cells will have the same DNA.

Humans have 46 chromosomes arranged in 23 pairs. One chromosome in each pair comes from your mother and one comes from your father. Your DNA is unique to you and can be used to identify you through DNA fingerprinting. You only share the same DNA with someone if you have an identical twin.