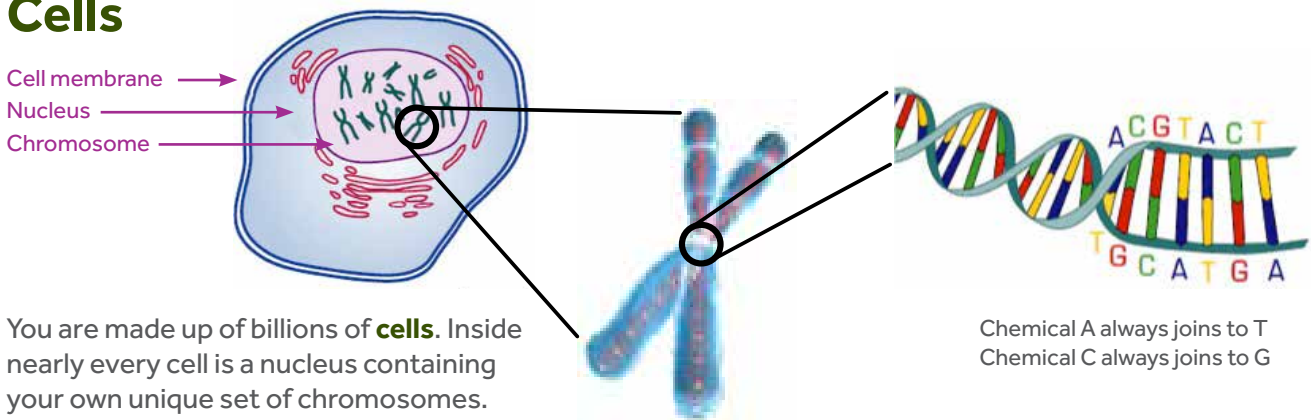


# What is DNA

## DNA stands for Deoxyribonucleic acid.

All the cells in our body contain DNA with the exception of red blood cells. DNA contains the genetic instructions used in the development and functioning of all known living things.

### Cells

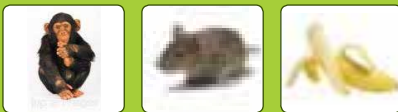


You are made up of billions of **cells**. Inside nearly every cell is a nucleus containing your own unique set of chromosomes. Each chromosome is one long piece of DNA.

Chemical A always joins to T  
Chemical C always joins to G

### Capsie says...

Did you know that we share roughly 98% of our DNA with chimpanzees, 90% with mice and 50% with bananas!

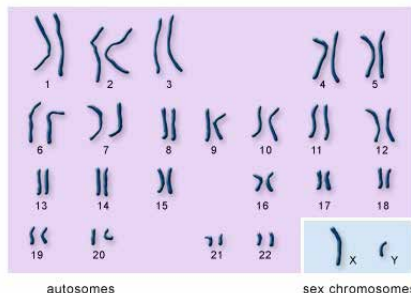


One single cell contains 2 metres of DNA. If you unwrapped all the DNA you have in your cells, you could reach the moon 6,000 times!



### Chromosomes

We have 22 pairs of **chromosomes** and a single pair of sex chromosomes that determine gender. One chromosome of each pair came from your mother and one from your father.



### DNA

**DNA** is made of a long chain of four building blocks (which we refer to as the letters A, T, C and G). The sequence of these 'letters' is very important.

**ATGCTCGAATAAATGTCA**

Differences in your DNA help to make you unique.

**Genes** are pieces of DNA which carry information; many (but not all) genes are instructions for how to make proteins.

**Proteins** are the chemicals in your body that 'do things' (eg. enzymes and your muscles are full of proteins).