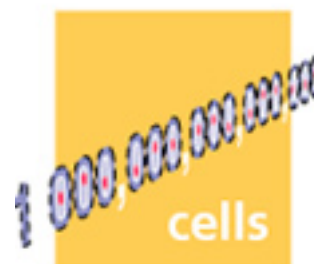


DNA, genes and genomes - General

Genomes

What is a genome?

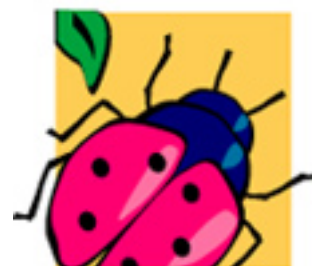
Your body is made up of about one hundred, million, million cells (100,000,000,000,000). Each of these cells has a complete set of instructions about how to make your cells, their components and their components' components. This set of instructions is your genome.



Your genome is quite similar to everyone else's genome, which is why we all turn out to be human beings. But every other living thing also has a genome.



All living things have genomes. Beetles each have a beetle genome, which is a complete set of instructions for making a beetle. Cabbages have a cabbage genome and bacteria have a bacteria genome.



Extinct species, such as dinosaurs also had their own genomes.

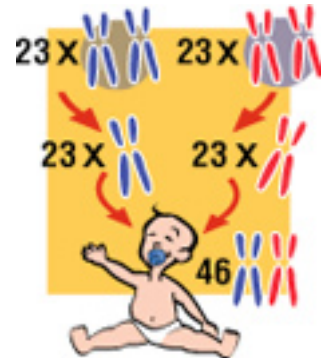


DNA, genes and genomes - General

Genomes

Where do genomes come from?

We actually have two genomes each. We get one copy of our genome from each of our parents. A sperm cell (from the father) has only one copy of a genome and an egg cell (from the mother) also only has one copy. The genome in each sperm or egg cell is a mixture of the father's or mother's two genomes.



At the moment of fertilisation, the sperm cell and the egg cell join together to make a cell containing two genomes. The fertilized egg then has a complete set of instructions to make a new person.

