



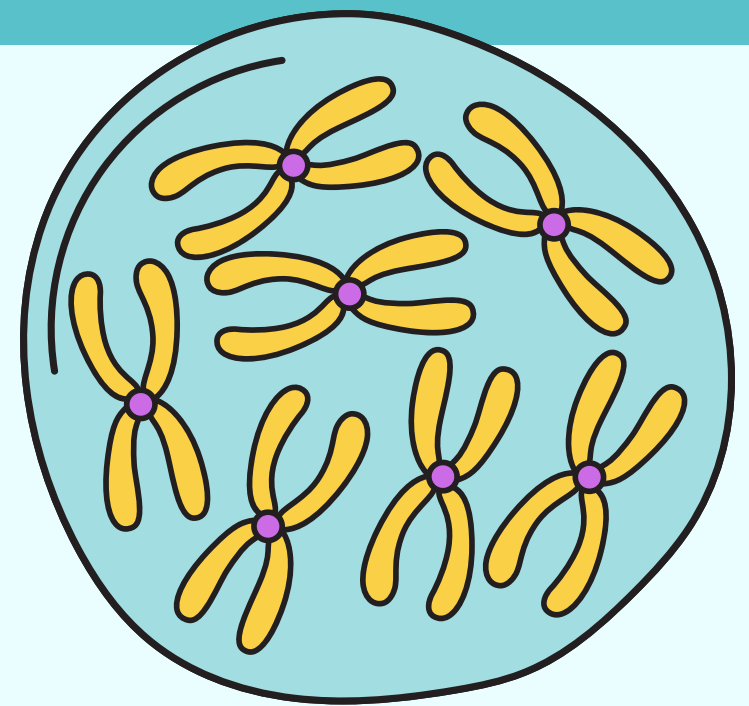
# INTRODUCTION TO GENETICS

Genes carry information that gets passed from one generation to the next.

A gene is a section of DNA (deoxyribonucleic acid) that carries the instructions for different characteristics (or traits) of an organism.

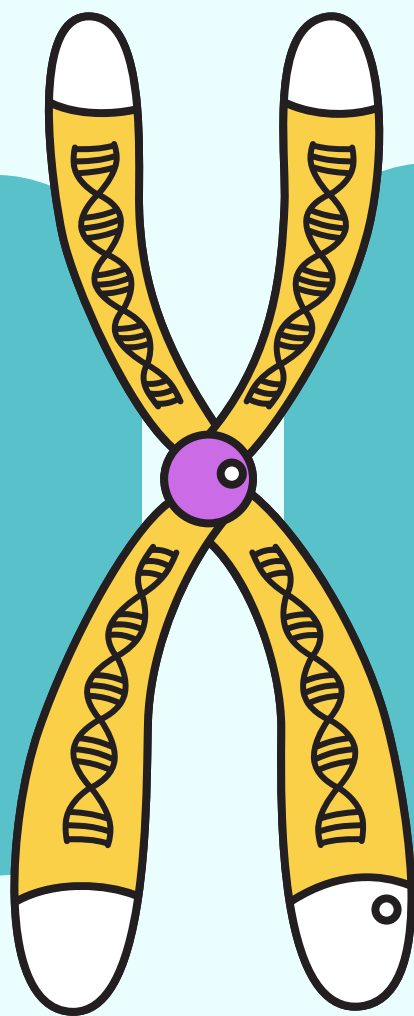
DNA lives in each cell of an organism on structures called chromosomes.

DNA molecules contain four different nucleotides - these store the 'code' for each organism's trait.



The four nucleotides are:

- Adenine (A)
- Cytosine (C)
- Guanine (G)
- Thymine (T)



The pattern for coding is:

- Adenine pairs with Thymine (A with T)
- Guanine pairs with Cytosine (G with C)

Many organisms pass on their genetic information through sexual reproduction. This involves each parent contributing half of their genes to their offspring.

The traits of the offspring will depend on which genes they 'inherit' from their parents.