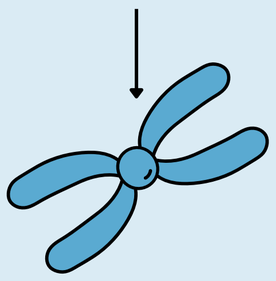
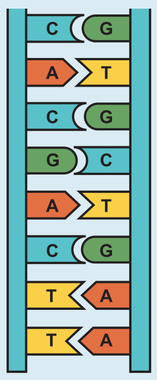
WHY CHOOSE A CAREER IN CLINICAL SCIENCE?

CELL
Basic building block of living things



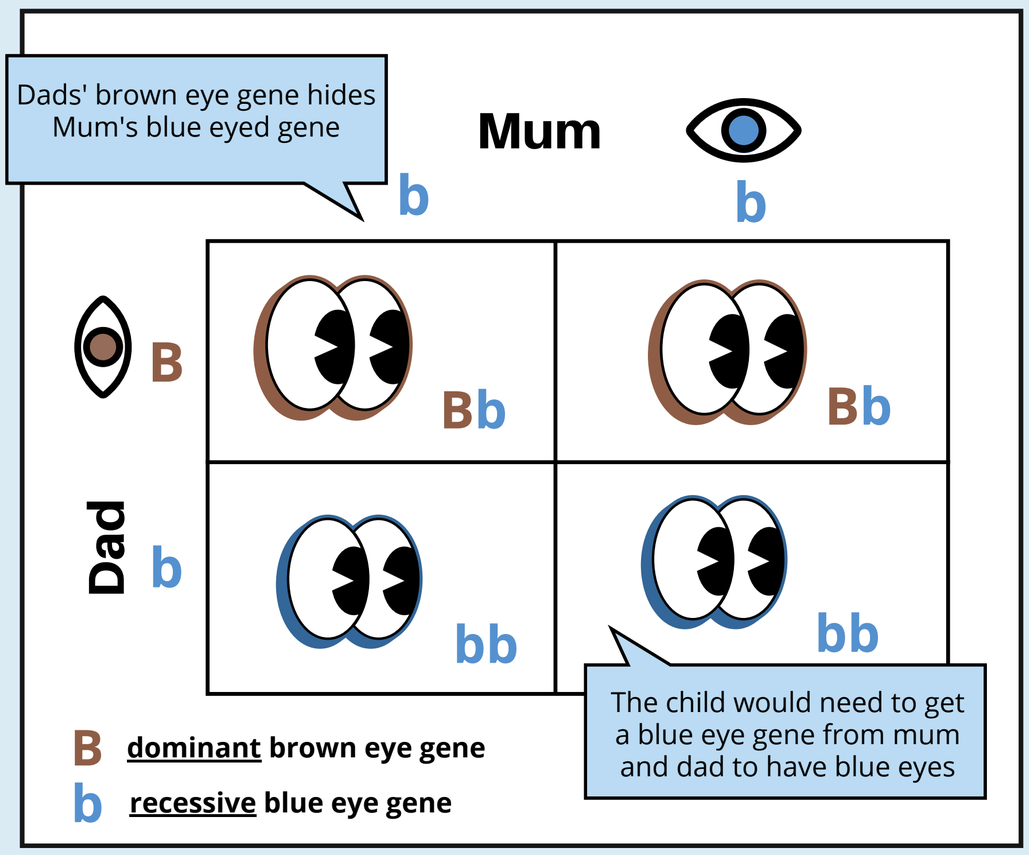
CHROMOSOME
Tightly packed strings of DNA arranged in pairs (23 pairs in total)



DNA
Deoxyribo**N**ucleic **A**cid (contains the genetic code **A** ,**T**, **G**, **C**).

GENETICS

- DNA acts like an instruction manual for how to build a human.
- Genes are small pieces of DNA instructions that give individuals specific traits.
  e.g. height, hair colour and eye colour.
- We are all given half of our DNA from our mum and the other half from our dad.
- Have a look below to learn how your parents influence your eye colour!

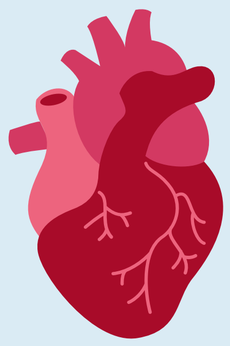


GENETIC DISEASES

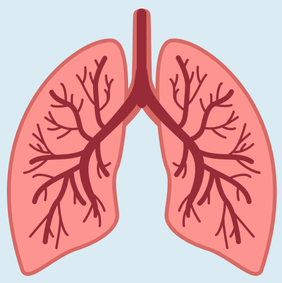
What happens when the DNA code is damaged or in the wrong order?

- The instructions that our cells follow to build our bodies are wrong.
- Breakages in the genetic code can cause illness or disability.
- Humans can have a wide range of problems which might affect the functioning of their:

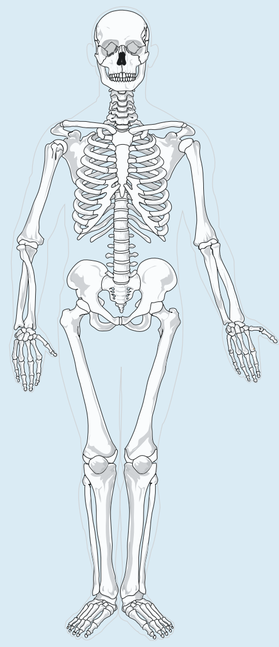
Heart



Lungs



Skeleton



- Our job as Clinical Scientists is to crack the DNA code and understand what piece of DNA might be missing or in the wrong place...

What is a Genetic Clinical Scientist?

What?

Scientist look at data from patient samples in order to detect changes in genes and to help predict whether other family members are at risk from the same illness.

How?

Blood, saliva or other sample types are taken from our patients. We can then look closely at their DNA, using cutting-edge technology and robotics. This helps us to figure out whether their illness might be genetic.

Who?

Genetic laboratories are used by patients all over Scotland and sometimes beyond. Our main locations include: Glasgow, Aberdeen, Dundee & Edinburgh!

Where?

Clinical Scientists working in Genetics are most commonly found within a hospital laboratory setting.

Why?

To prevent, diagnose and treat genetic illnesses.

Poster by Sophie Benfield & Daniel Wood - West of Scotland Centre for Genomic Medicine

WEST OF SCOTLAND CENTRE FOR GENOMIC MEDICINE