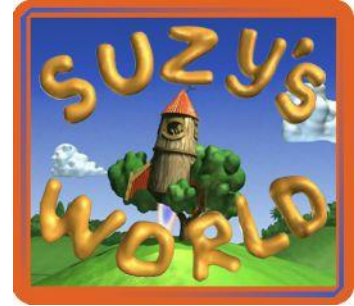


Genetics - Why do you look like you?



Fact

- Your body is made up of cells – around 100 trillion of them. In each cell there are 70,000 pairs of genes
- Everyone gets cells for hair, height, eye colour but the way they turn out depends on the combination of genes inside the cells. That's what makes people look different and that's why you look like you.
- The genes give instructions, about you, to your body. Like what colour your hair should be, or your eyes, how tall you will be, if you will be right or left handed, and so on.
- When you were conceived, your parents each gave you half of their pairs of genes, which joined together to become your pairs.
- Genes are composed (made up) of a chemical called DNA. DNA has a ladder-like structure. The two uprights of the ladder are a structural backbone that supports the rungs of the ladder. Each rung is made of two chemicals called bases that are paired together. These bases are the letters of the genetics code, which has a small alphabet, only four letters. These bases join together to make up the genes – which then pass on the instructions to our bodies.

Do you know

- About 200 years ago, in the 19th Century, there was a Monk called Gregor Mendel who did experiments with sweet pea plants. Gregor was the first person to 'discover' genes.
- Some genes are more dominant than others. That means that they are "stronger" and "bossier" than others. Dark hair genes are like that. If you have a gene for dark hair from one parent and a gene for blonde hair from another parent you're more likely to have dark hair than blonde hair. Brown eye genes are dominant over blue eye genes.
- You'll only ever be able to roll your tongue in from the sides to make a pipe with it if one of your parents can do that. It's something that you get to do genetically

Experiments you can do

Have a look at your relatives, like your Mum, Dad, Grandparents, or your brothers or sisters if you have any. Do they look like you? Whose hair colour is the same as yours?

Other Investigations

Can you roll your tongue? Who in your family can do that?