Questions in science

How similar am I to a Plant?

Narrator:

How similar am I, a human, to a plant? Humans and plants share many key features. As living organisms, both animals and plants perform the same fundamental steps common to all life –

Animals and plants both grow, reproduce, generate energy, and sense their environment. They are also both comprised of cells but plant cells have some extra features animal cells do not.

They have structures called Chloroplasts, which allows plants to harvest light energy using a process called Photosynthesis and provides the green colouration commonly associated with plants. Plant cells also have cells walls, which allow them to provide structural support.

However, despite these differences, plants and humans have one important similarity: both have traits that are passed from generation to generation through DNA. DNA is the code of life, coding for the proteins required for the survival and growth of an organism.

In the same way that humans pass on traits to their children, like eye and hair colour, plants do too.

Traits like flower colour, leaf shape, and growth habits are passed on from parent plants to their offspring through the transmission of DNA.

When we compare human DNA to plant DNA, for example to DNA of a banana, there is a 50% similarity. This is roughly the case for all plants, so despite their diverse appearances, humans and plants and other organisms are close neighbours on the tree of life and share basic similarities at a molecular level.

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