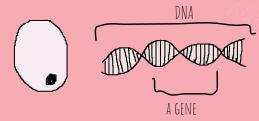
# A KID'S GUIDE TO INHERITED CANCER?

## CELLS, DNA AND CANCER

Our bodies are made of millions and millions of tiny cells. Inside each cell there is DNA. DNA is a set of instructions that tells the cell what to do and how to behave.

DNA is a long set of instructions, and a gene is a little bit of the DNA.



Sometimes our genes can become damaged or get lost, for example when a cell is making a copy of itself. Our cells need to make copies of themselves as we grow, or to replace old cells.

When a cell has a damaged gene it is no longer properly controlled by the body, it has become 'mutated' and starts to misbehave. These damaged misbehaving cells can become cancer cells.

In other words, if a gene does not work properly, it means the cell stops working properly, which means a person is more likely to get cancer.

## HOW DO WE GET OUR GENES?

Half of our genes and DNA, come from our mother, and half come from our father. We inherit our genes from our parents.

Have you got the same eye colour as your mum or dad? What about hair colour?



#### WHAT IS INHERITED CANCER?

If our mother or father has a damaged gene that can cause cancer, they can pass this gene on to their children.

This means their children have 50% chance of getting the damaged gene, so they are more likely to get cancer than people with a gene that works properly.



Each child has a 50% chance of inheriting the damaged gene.

**REVEYBER** 

not all damaged genes will increase the risk of cancer, but some might. If you are born with a gene that doesn't work properly it doesn't mean that you will definitely get cancer, but you are more likely than a person who has a gene that works properly.



#### HO\n/ DO YOU KNO\n/ \n/HETHER A CANCER IS INHERITED?



Certain types of cancers are more likely to be inherited. So, if someone has that type of cancer, their genes might be tested to check.

Only 5-10% of all cancers are inherited.

If a pattern is seen in a family tree, this suggests the cancer might be inherited.