

TWISTS, TURNS AND SPIRALS

ROSALIND FRANKLIN

Rosalind Franklin was a brilliant scientist. Her research helped to unravel the secrets of **DNA***. Sadly, during her lifetime Rosalind did not get the credit she deserved for her part in this **groundbreaking discovery**.

In the early 1950s, at a time when few women worked in the sciences, Rosalind got a job researching **DNA** at King's College London, UK. Rosalind knew that **sharing ideas** could lead to scientific breakthroughs.

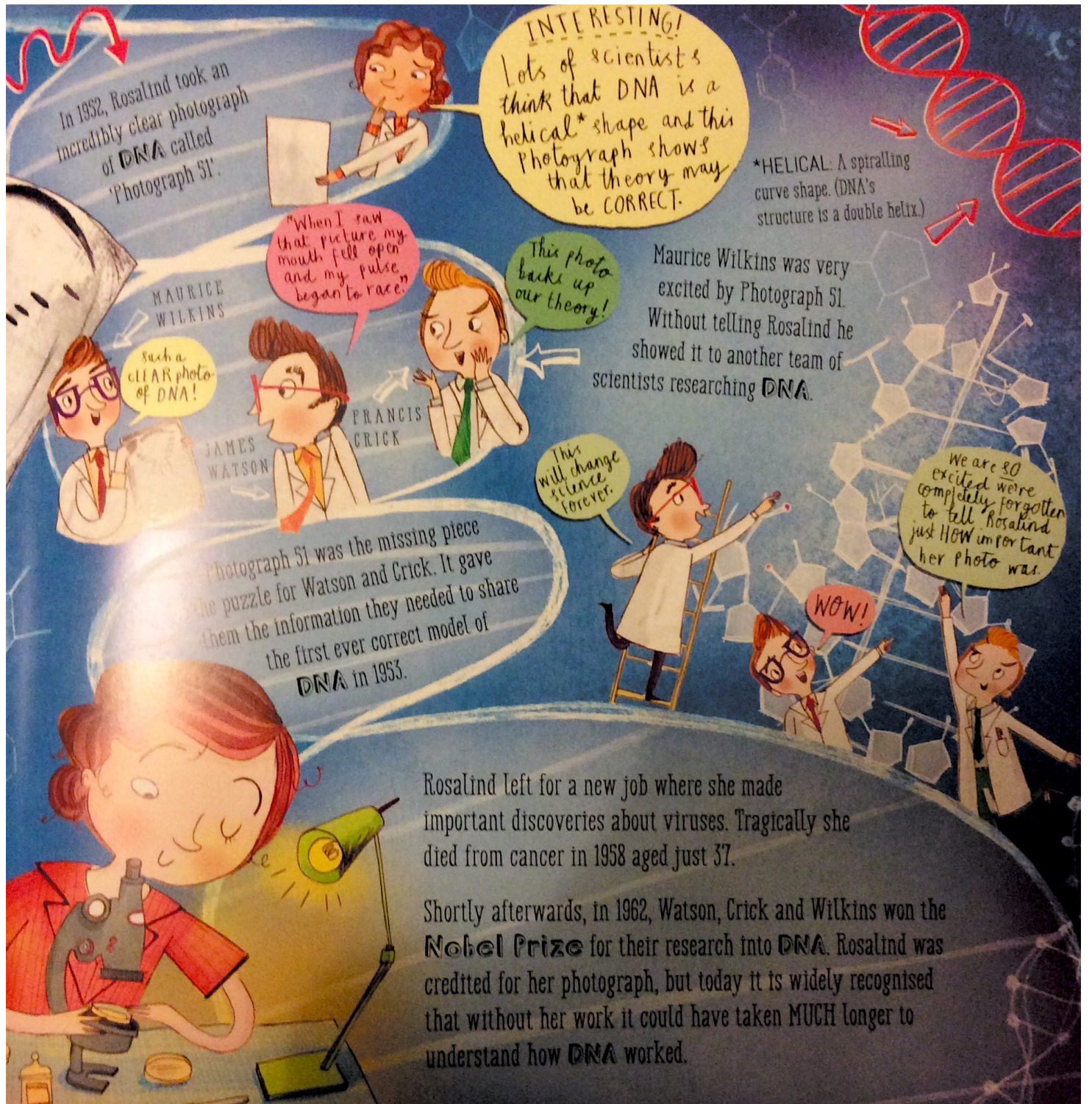
The patterns the **X-rays** produced on photographic paper revealed clues about what **DNA** looked like and how it worked ...

***X-RAYS** are a type of invisible radiation that can be used to create photographic images which see inside things, including **DNA**.

***DNA** is the substance in the cells of living things that gives instructions on how to grow and develop. It is sometimes called the '**BLUEPRINT FOR LIFE**'.

At that time scientists had deduced that **DNA** existed but couldn't see it under a microscope. Rosalind was skilled in a special technique that fired a beam of **X-rays*** through **DNA** ...





In 1952, Rosalind took an incredibly clear photograph of DNA called 'Photograph 51'.

INTERESTING!
Lots of scientists think that DNA is a helical* shape and this photograph shows that theory may be CORRECT.

*HELICAL: A spiralling curve shape. (DNA's structure is a double helix.)

"When I saw that picture my mouth fell open and my pulse began to race."

This photo backs up our theory!

Maurice Wilkins was very excited by Photograph 51. Without telling Rosalind he showed it to another team of scientists researching DNA.

such a CLEAR photo of DNA!

MAURICE WILKINS

JAMES WATSON

FRANCIS CRICK

Photograph 51 was the missing piece of the puzzle for Watson and Crick. It gave them the information they needed to share the first ever correct model of DNA in 1953.

This will change science forever.

We are SO excited we're completely forgotten to tell Rosalind just HOW important her photo was.

WOW!

Rosalind left for a new job where she made important discoveries about viruses. Tragically she died from cancer in 1958 aged just 37.

Shortly afterwards, in 1962, Watson, Crick and Wilkins won the Nobel Prize for their research into DNA. Rosalind was credited for her photograph, but today it is widely recognised that without her work it could have taken MUCH longer to understand how DNA worked.