

Rosalind Franklin and Francis Crick

DNA means everything to you. Literally. DNA (Deoxyribonucleic acid) is a molecule inside your body that tells your body how to be, well, you. It contains information about your eye colour, the colour of your hair and even your height. Think of it as a recipe for how to build another you.

Scientists have known about DNA since 1869, but they didn't discover the role it played in genetics until 1943. Then, they discovered that it had a huge role to play in inheritance. This is how physical aspects are passed from a mother and father to their children. Even then, it wasn't known what DNA looked like or how it worked. This important piece of the puzzle fell to three very important people.

In the 1950s, many scientists were trying to work the structure of DNA. Two of these were British scientists named Francis Crick and Rosalind Franklin. Francis Crick was working with a partner called James Watson. Rosalind Franklin was working with another scientist, Maurice Wilkins.

In 1953, a chemist in California thought he had cracked the mystery. When he was proved wrong, Crick and Watson were determined to beat him to it. A few weeks later, on 6th February 1953, they published their own version that changed the world. Suddenly, the world could use DNA to solve a variety of problems.

But, a scandal erupted. It soon became clear that Crick and Watson may have had some help in their discovery. Just before they announced their amazing find, Maurice Wilkins had shown them a set of x-rays that Rosalind Franklin had produced. These provided key information in their discovery, but Franklin was never credited. When she died in 1958, she still had no idea how important her images were to the advancement of science.

What is important is that, between them, the three scientists gave the world a clear picture of DNA and how it works. Their hard work and the discoveries of scientists before them have made it possible for scientists to detect and treat diseases in babies before they are even born; to identify

the age and origins of ancient human beings and for police forces to determine if somebody is innocent or guilty of a crime.

Francis Crick and Rosalind Franklin may have had their differences, but they were both pioneering innovators and British scientists who changed the world.

VOCABULARY FOCUS

1. Find a definition for “inheritance” in the text.
2. Which word tells you that working out what DNA looked like was difficult?
3. Which word or phrase has a definition that most closely matches “to solve or find a solution to a problem”?
4. Write a definition for “variety”
5. Which word or phrase tells you that Rosalind Franklin’s x-rays were important?

VIPERS QUESTIONS

E

Why has the author put Deoxyribonucleic acid in brackets?

S

List one of the things that DNA controls, according to this text.

I

Why does DNA mean “Literally” everything to you?

R

When did scientists first discover DNA?

S

Make a list of three things that DNA allows us to do now.

Answers:

1. This is how physical aspects are passed from a mother and father to their children
2. Puzzle
3. Cracked
4. Many or lots of, all different
5. Key information

E: It is the definition for DNA

S: Eye colour/hair colour/height

I: Because it tells you everything you need to know about your body and how it works

R: 1869

S: Detect and treat diseases in babies, identify the age and origin of ancient humans and find out if somebody is innocent or guilty of a crime