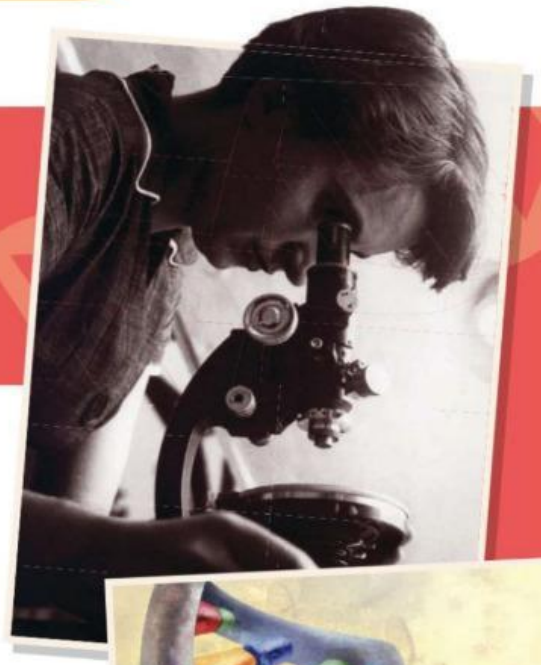
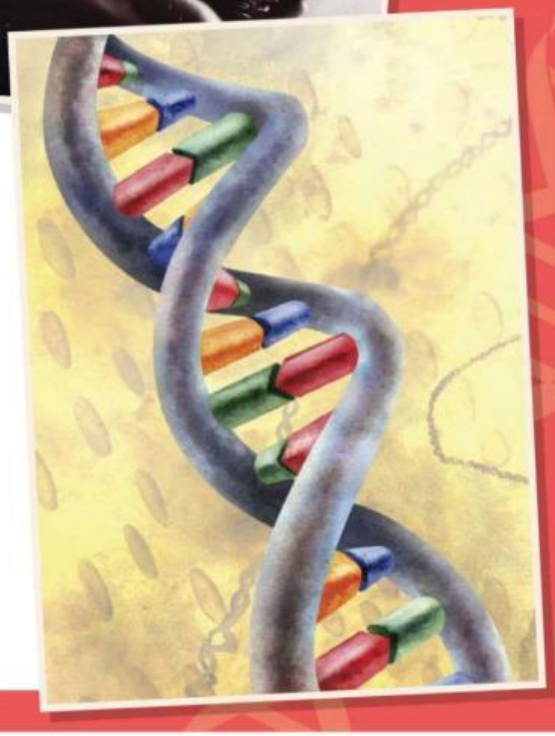
Reading: a biography

1 Read the biography. Answer the questions.

ROSALIND FRANKLIN





At Cambridge University in the 1950s, Francis Crick and James Watson became famous for their discovery of the structure of deoxyribonucleic acid (DNA). DNA carries the genetic information that is passed from parent to child, but Crick and Watson were not the only people who helped discover its structure.

Born in London in 1920, Rosalind Franklin studied Chemistry at Cambridge University. After graduating, she worked in Paris and then moved to King's College London. It was at King's College that she began working on DNA with a scientist called Maurice Wilkins. They used x-ray photographs to study the structure of DNA. Wilkins showed Franklin's work to Crick and Watson and they used it to help them in their research at Cambridge. In 1953, Crick and Watson published news of their discovery. It was one of the great moments of 20th-century science.

Rosalind Franklin died in 1958, four years before Crick, Watson and Wilkins received a Nobel prize for their discovery of the structure of DNA. It was only many years later that people recognised the importance of Franklin's work.

1 What university did Francis Crick and James Watson work at in the 1950s? Cambridge

2 What subject did Franklin study at university? _____

3 Where did Franklin go after her time in Cambridge? _____

4 Who did Franklin work with at King's College London? _____

5 When did Crick and Watson tell the world about their discovery? _____

6 When did Crick, Watson and Wilkins win their Nobel prize? _____

LIVEWORKSHEETS

Writing

1 **Complete the fact file with the words and phrases in the box.**

A type of early computer ~~The famous poet Lord Byron~~
London, 1815 The inventor Charles Babbage 1852 She wrote a program for it.

ADA LOVELACE, THE FIRST COMPUTER PROGRAMMER



1. Who was her father? The famous poet Lord Byron
2. Where and when was she born? _____
3. Who did she work with? _____
4. What did he design? _____
5. What work did she do for his invention? _____
6. When did she die? _____

Help with Writing

Biographies can help us understand other times and places. The biography of Rosalind Franklin, for example, makes us think about how hard it was for women to be recognised for their achievements. It also makes us ask whether things are different now.

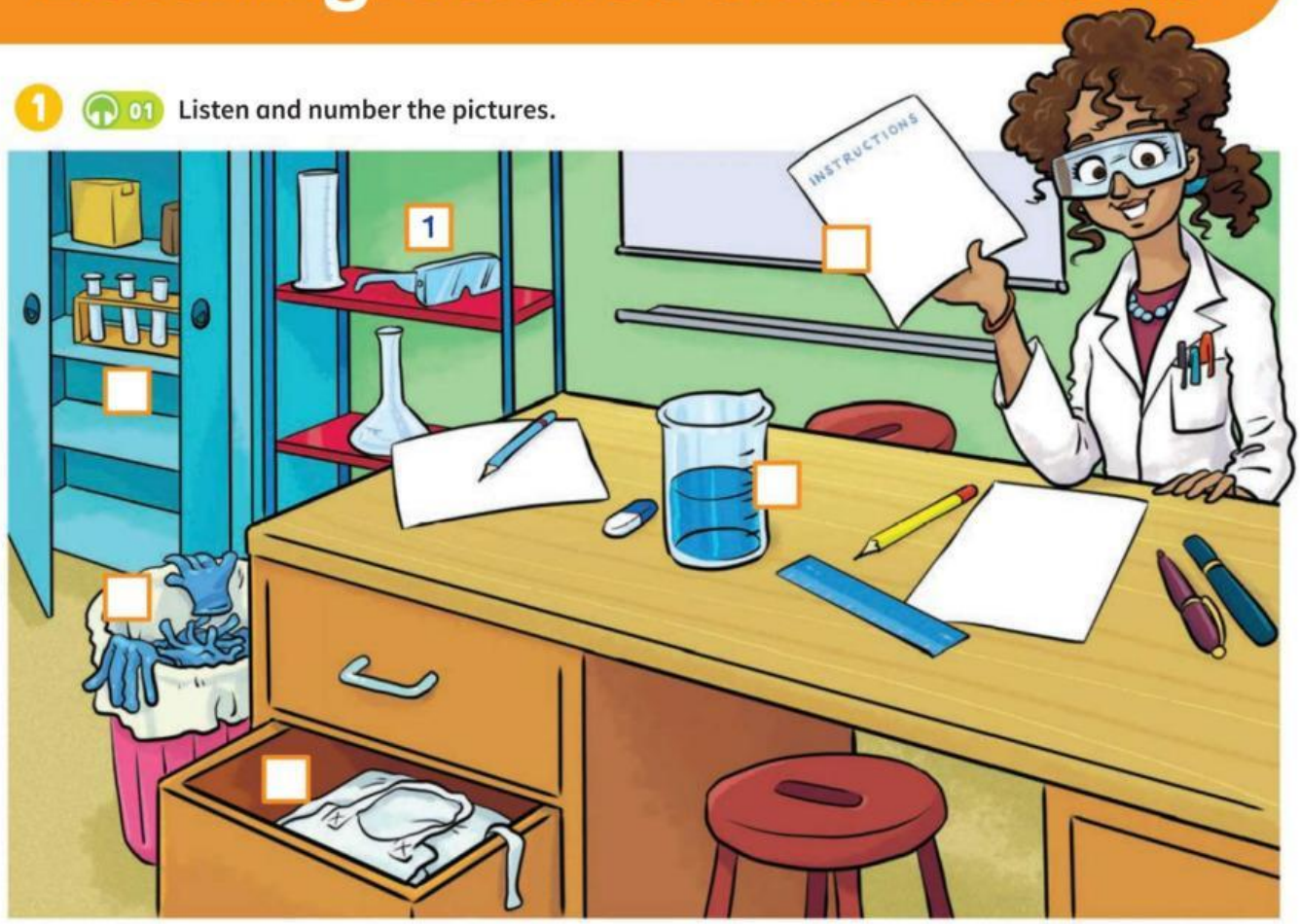
2 **You are going to write a biography of Ada Lovelace. Use the biography of Rosalind Franklin and the fact file in Activity 1 to help you.**

A BIOGRAPHY OF ADA LOVELACE

LIVEWORKSHEETS

Listening: science and scientists

1 01 Listen and number the pictures.



2 02 Listen to the conversations. Circle the correct answers.

1 What happened at school?
- a The experiment worked.
- b The experiment didn't work.

2 Where did Jill's dad put her Science book?
- a On the shelf in her room.
- b On the desk in her room.

3 What did Jack think of the Science test?
- a That it was easy and he did OK.
- b That it was difficult but he did OK.

4 What did Sophie think of the film?
- a She really liked it.
- b She thought that it was boring.

5 Did Oscar go to the Science Museum?
- a Yes, he did.
- b No, he didn't.

6 Which project did Helen do last week?
- a Science.
- b Maths.



LIVEWORKSHEETS

Speaking

1 Work with a friend. Read the fact file. Then choose your questions and ask and answer.

ISAAC NEWTON (1643–1727)

Born: England
Jobs: scientist, mathematician, astronomer
Worked at: the University of Cambridge
Discovered:
- the laws of gravity
- that light is made up of different colours

Described: the three laws of motion
Died: England



STUDENT A

- When and where was Isaac Newton born?
- Where did he work?
- What did he discover?

STUDENT B

- What jobs did Isaac Newton have?
- What did he describe?
- When and where did he die?

2 Read about Mary Anning. Choose one of her underlined discoveries and draw a picture of it. Use your imagination!

Mary Anning: the world's greatest fossil hunter

Mary was born in England in 1799. When she was a child, Mary looked for fossils on the beach with her dad and brother. They collected them and then sold them. When Mary was 12, she uncovered a long skeleton. It belonged to an ancient creature. Scientists named it ichthyosaur – meaning 'fish lizard'. As an adult, Mary discovered fossils of many more creatures, for example the pterodactyl (a flying reptile) and the plesiosaur (a sea creature with a very long neck). Mary died in England in 1847.



3 Work with a friend. Talk about your picture.

What did you draw?

I drew a pterodactyl – a flying reptile.

Why did you choose a pterodactyl?

I liked the idea that it flew.

LIVEWORKSHEETS