



Ada Lovelace (B1 - Lower Intermediate)

A – Before you start

Answer the questions with a partner.

1. Are you interested in computer science?
2. Is computer programming part of the national curriculum in schools in your country?
3. How many programming languages can you name?
4. Have you heard of Ada Lovelace? If so, what do you know about her?

B – Listen and answer

Read these statements. Then listen to the two parts of the article (without reading) and write T (true) or F (false).

Part One

1. Ada Lovelace's parents separated before she was born.
2. Ada's education was similar to that of most young women at the time.
3. In 1833, she met Charles Babbage – known as "the father of computers" – at a party.
4. Babbage had already designed his Analytical Engine, which was similar to a computer.
5. In 1843, Ada translated an article by Babbage on the Analytical Engine.
6. She included many notes and a computer programme.
7. Other mathematicians and engineers immediately realised the importance of Ada's work.
8. Alan Turing was inspired by her notes.

Part Two

9. Ada Lovelace was educated by lecturers from Cambridge University.
10. She married a nobleman and had three children.
11. Ada's husband did not want her to do scientific research.
12. Ada's behaviour was always reserved and conventional.

C – Read and answer

Read the two parts of the article and answer the questions.

1. Why did Ada's mother make her study the sciences, maths and logic?
2. Why was the English translation of Luigi Menabrea's article much longer than the original?
3. What did Ada Lovelace realise could be done with the Analytical Engine?
4. In what ways did Ada's mother take too much control of her daughter when she was dying?
5. How strict was Ada's mother when Ada was a child?
6. Why did Ada's husband go to libraries and copy out articles for her?
7. What were the negative aspects of Ada's personality according to some biographers?
8. How has she been commemorated?

D – Learn it! Use it!

Complete these sentences with words from the glossary. (You may have to adapt the expression in some way; e.g. change the verb tense, or change from singular to plural.)

1. This is the plan. Ideally, it should be _____ by the end of the month.
2. If your back hurts you so much, you should take a _____.
3. We _____ on the beach for a couple of hours this morning and we both got sunburnt.
4. I found several interesting articles in some medical _____ at the library.
5. The boys lost their parents when they were small, so they were _____ by their grandparents.
6. The _____ durable colour photograph was taken in 1861. Before that, the colours faded fast.

E – Ready for the B1 PRELIMINARY English Exam? (Paper 1, Reading: Part 5)

Choose the correct word in brackets for each space.

The Difference Engine

A difference engine is a kind of mechanical calculator. Charles Babbage began to build a small one in 1819 and had completed it ¹_____ (by/after/from/since) 1822. In 1823, the British government gave Babbage £1700 to produce a larger engine in the hope that it ²_____ (should/will/would/can) save them money by preventing critical errors in tables that were calculated and copied by hand. However, the machine proved ³_____ (too/much/very/lot) more complicated and expensive to build than expected, as it ⁴_____ (requested/demanded/asked/required) almost 25,000 precision parts to be made. A small working prototype was built in 1832. This was ⁵_____ (which/that/what/who) left such a lasting impression on Ada Lovelace. However the larger engine ⁶_____ (wasn't/has/hasn't/was) never built and in 1833 Babbage's interest turned to designing the Analytical Engine, a more general-purpose machine.

F – Write about it

Write about one of your country's famous female scientists or engineers. Mention:

- when/where she was born;
 - what branch of science or engineering she is/was involved in;
 - where she was educated;
 - what she is famous for.
-

Answers: Ada Lovelace (B1)

B – Listen and answer

1. F – They separated one month after she was born. 2. F – It was a very unusual education for women. 3. T 4. F – He had already designed his Difference Engine, an early calculator. 5. F – She translated an article by Luigi Menabrea. 6. T 7. F – The real value of her contributions was recognised a hundred years later. 8. T 9. T 10. T 11. F – He helped her to do it. 12. F – She swore, smoked and gambled.

C – Read and answer

1. Because she didn't want her daughter to have a disorderly, poetical mind like her father, Lord Byron. 2. Because Ada added so many notes and annotations of her own. 3. She realised that with the right programming and inputs it could do more than calculate numbers; it could process notes, letters and images. 4. She forced her to convert back to Christianity by refusing to give her a painkiller till she did. She also prevented Ada's friends from seeing her. 5. She was extremely strict. Ada was forced to lie on a board to correct her posture. If she fidgeted, her hands were put in black bags and she was shut in a closet. 6. Because women were not permitted to enter university or scientific libraries. 7. Some biographers say she was manipulative, aggressive, a drug addict, an adulteress, self-centred, obstinate and lacking in character. 8. There is a day – the second Tuesday of October – named after her. There is also a programming language named ADA. There is a plaque on the house where she lived in St James's Square, London. Since 2015, all British passports have contained an illustration of her and Babbage.

D – Learn it! Use it!

1. carried out 2. painkiller 3. lay 4. journals 5. raised 6. first-ever

E – Ready for the B1 PRELIMINARY English Exam?

1. by 2. would 3. much 4. required 5. what 6. was