

STUDENT ACTIVITIES

Ada Lovelace

Before reading

1 Guess

Are the sentences true (T) or false (F)? Correct the false ones.

- 1 Lovelace was the daughter of Lord Byron. T/F
- 2 Lovelace was married to Charles Babbage. T/F
- 3 Lovelace invented the first computer software. T/F
- 4 Lovelace died when she was very old. T/F
- 5 Lovelace had eight children. T/F
- 6 Lovelace wrote many emails. T/F

2 Listening

Listen to the first four paragraphs of Ada's story being read on the MP3 CD. Complete the gaps in this transcript.

My father was a famous poet, but I became a 1 _____ mathematician. I worked with Charles Babbage and helped him to develop the Analytical Engine. People today call me 'the world's first 2 _____ programmer'.

I was born in 1815, in London, England. My father was the famous 3 _____, Lord Byron, and my mother was Lady Annabella Milbanke – or Lady Byron. Unfortunately, my father died when I was only 4 _____ years old. My mother and I lived with her parents – my grandparents. Women didn't usually get an education at that time and they didn't go to school. But my mother – who was also very good at maths – wanted me to have an education. She arranged for me to have 5 _____ with a teacher.

It was good that my mother wanted me to have an 6 _____. However, she had very clear ideas about what was good for my mind. She didn't want me to study 7 _____ because she didn't want me to be like my father. She wanted me to study mathematics and 8 _____ subjects. I had many excellent teachers. They included William Frend, Augustus De Morgan and the science writer, Mary Somerville. I also studied very hard – some of my mother's friends thought that I worked *too* hard.

When I was 14 years old, I became ill. For a long time, I couldn't walk or 9 _____ and I had to stay in bed for more than a year. But I continued to study many subjects. I was taught music and I became a very good musician. I also learned many 10 _____. But mathematics was always my best subject. I thought numbers were beautiful and I became very interested in mathematical and scientific 11 _____ at that time. My scientific abilities became clear when, in 1828, I drew a design for a 12 _____.

While reading

3 Comprehension

Read Ada Lovelace's story. As you read, check your answers to activity 1. Were you correct?

4 Comprehension

Put these events in the correct order. Write a date from the box in the spaces.

- | | | | | | |
|------|------|------|------|------|------|
| 1815 | 1833 | 1842 | 1835 | 1828 | 1824 |
|------|------|------|------|------|------|

- _____ Ada got married.
- _____ Ada met Charles Babbage.
- _____ Ada's father died in Greece.
- _____ Ada translated an article written about Charles Babbage's Analytical Engine.
- _____ Augusta Ada Byron was born in London, England.
- _____ Ada began to be taught at home.

5 Language

Find 8 words or phrases from the box in the wordsearch.

- | | | | |
|-----------|-----------|-----------|-----------|
| astronomy | cause | algorithm | calculate |
| carry out | magnetism | program | inventor |

A	L	G	O	R	I	T	H	M	P
P	L	F	C	E	N	K	H	A	I
E	C	A	A	X	V	B	Z	G	D
Y	A	O	R	T	E	T	A	N	A
H	L	X	R	O	N	O	M	E	S
N	C	D	Y	K	T	I	M	T	P
O	U	P	O	R	O	M	I	I	R
Z	L	G	U	N	R	L	P	S	C
W	A	S	T	R	O	N	O	M	Y
K	T	C	A	U	S	E	R	S	P
T	E	K	P	R	O	G	R	A	M

STUDENT ACTIVITIES (CONTINUED)

Ada Lovelace

6 Comprehension

Answer these questions in sentences.

1 How did Ada meet Charles Babbage?

2 Who did Ada marry?

3 What was Ada's mother called?

4 How did Ada help Charles Babbage?

5 What other things did Ada try to do?

After reading

7 Writing

Imagine you are Ada Lovelace. You have just invented the first computer algorithm. Write a short letter to Charles Babbage explaining how excited you are about your discovery. Begin your letter like this:

Dear Charles

Yesterday I invented an algorithm which ...

8 Research

Some scientists and academics argue that Ada Lovelace did not really help the invention of computers. They say that Babbage needed her famous name to help make his work a success. Look on the Internet and at the 'Further Research' document and see if you can find evidence to support this. What is your opinion?

ANSWER KEY (STUDENT ACTIVITIES)

Ada Lovelace

1 Guess

Don't worry if you don't know the answers to these. Read the story to find out!

2 Listening

- 1 brilliant
- 2 computer
- 3 poet
- 4 eight
- 5 private lessons
- 6 education
- 7 the arts
- 8 scientific
- 9 move my body
- 10 many languages
- 11 developments
- 12 flying machine

3 Comprehension

- 1 T
- 2 F – Babbage and Lovelace were friends and research colleagues. They were not married.
- 3 T
- 4 F – She died when she was still quite young.
- 5 F – She had three children.
- 6 F – Email did not exist when Ada Lovelace was alive

4 Comprehension

- 1815 Augusta Ada Byron was born in London, England.
- 1824 Ada's father died in Greece.
- 1828 Ada began to be taught at home.
- 1833 Ada met Charles Babbage.
- 1835 Ada got married.
- 1842 Ada translated an article written about Charles Babbage's Analytical Engine.

5 Language

A	L	G	O	R	I	T	H	M	P
P	L	F	C	E	N	K	H	A	I
E	C	A	A	X	V	B	Z	G	D
Y	A	O	R	T	E	A	A	N	A
H	L	X	R	O	N	N	M	E	S
N	C	D	Y	K	T	I	M	T	P
O	U	P	O	R	O	Z	I	I	R
Z	L	G	U	N	B	A	P	S	C
W	A	S	T	R	O	N	O	M	Y
K	T	C	A	U	S	E	R	S	P
T	E	K	P	R	O	G	R	A	M

6 Comprehension

- 1 They were introduced at the Statistical Society.
- 2 She married William, Lord King.
- 3 Her mother was called Lady Annabella Milbanke.
- 4 She translated Menabrea's article into English and added notes to it.
- 5 – She wrote a paper called *Researches into Magnetism* but it wasn't published.
– She learned to carry out scientific experiments.
– She became interested in the brain and how it creates feelings in human beings.

7 Writing

Answers will vary.

8 Research

Answers will vary.