Can you read the code?

Use the key to replace the symbols below with the correct word. Then, you can read the message!

**KEY:** % = just \times = code! > = the @ = you $ = cracked

**CODE:** @ % $ > \times

**Ada Lovelace Shaped Your World**

You might not have heard of her before, but Ada Lovelace shaped the world you live in. To understand how, let’s look at what she and the world she lived in were like.

Ada Lovelace was a mathematician and writer. She lived from 1815 to 1852. There were no cars or ballpoint pens then! There were no airplanes, TVs, or movies. Kids didn’t watch things or play games on their cell phones, tablets, or laptops. Why? Because none of these things had been invented!

**Did you know?**

Some of the latest inventions when Ada was born included gas lighting, photography, and steam engines. Imagine living in a world without computers, cars, airplanes, or electricity!

What invention would be hardest to live without?
Who Was Ada Lovelace?

Ada’s mother wanted Ada to be practical. So Ada spent a lot more time than many other children studying math. Ada became very good at math. She was so talented that she worked with some of the most important scientists of the time. For example, she worked with Michael Faraday. His discoveries led to the electrical motor.

Ada became very practical and logical because of her mother’s influence. But she was also creative like her father, Lord Byron. He was a famous poet. He wrote beautiful poetry using his imagination.

Ada believed it was important to use both her math skills and her creativity. That’s how you can be original and invent new things!

The Father of Computers and the World’s First Coder

Another important scientist Ada worked with was Charles Babbage. She met him in 1833. He told Ada about his idea to make a machine that could do math, like today’s calculator apps. This is why he’s often called the father of computers.

Ada was very excited. She understood how a machine could do math. She could also imagine how machines could do tasks that didn’t use only numbers. She imagined that machines could work with other kinds of information, for example, letters or musical notes. And by doing that, she described what makes a computer a computer. It doesn’t just do math. It saves, remembers, and follows steps.
Thanks, Ada Lovelace!

Today, even small computers like cell phones, tablets, and laptops are everywhere. None of these could work without the kind of code Ada invented. So the next time you are playing your favorite computer game, remember it’s possible thanks to the first computer coder, Ada Lovelace! And, the next time someone tells you that creative thinking is more important or that math is more important, you can tell them it’s important to have both.

The World’s First Computer Coder

As Ada imagined, a computer could even write its own music!

Ada used her mathematical and her creative talents not only to describe how a computer could work. She also used those skills to invent the first series of steps a machine could read and respond to. These steps are very similar to the instructions or code that all computers use today. That’s why some people call Ada the world’s first computer coder!

Did you know?

All communication is code. Make up some sounds to replace words. Then, repeat them to the person next to you. Do they understand? For example, pretend that “Hum ho di dum” means “This is math class.” Try it! Does your classmate understand what you mean? Probably not. Then, try saying “Math this is class” to your classmate. They probably still don’t understand. That’s because the words we use are a kind of code. Codes only work if we all know the same symbols. And we have to put the symbols in the right order. When we do that, we can communicate!

Ada wrote the first-ever computer code. Now people all over the world use computer code every day!