



## Unit 9 Let's Get Started with Computers

## \* Glossary

**(to) herald:** to be a sign that something important is about to happen

**legacy:** something transmitted by or received from an ancestor or predecessor or from the past

**(to) underpin:** to give a basic structure to something

**drudgery:** jobs and tasks which are boring and unpleasant



## Who Is George Boole and Why Is He important?

Boole was a 19th century mathematics genius. Recently Google celebrated the 200th anniversary of his birth by honoring him with a special Google Doodle.

George Boole was born on November 2, 1815 in Lincoln, England, the son of a shoemaker. He was forced to leave school at the age of sixteen and never attended a university. Boole taught himself languages, natural philosophy and mathematics.

In 1849 he was appointed as first professor of mathematics in Ireland's new Queen's College in Cork and taught and worked there until his premature death in 1864.

In 1855 he had married Mary Everest, a niece of the man after whom the world's highest mountain is named. The couple had five remarkable daughters including Alice, a mathematician, Lucy, a professor of chemistry and Ethel, a novelist.

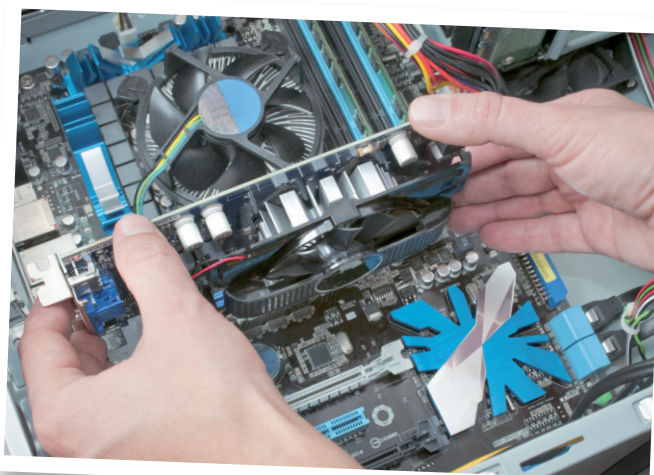
Boole's work on logic laid many of the foundations for the digital revolution. The Lincolnshire-born academic is widely **heralded** as one of the most influential mathematicians of the 19th century. He devised a system of logic that aimed to condense complex thoughts into simple equations. His development of "Boolean logic" paved the way for the computer age.

His **legacy** was Boolean logic, a theory of mathematics in which all variables are either "true" or "false", or "on" or "off". The theory preceded the digital age, with American Claude Shannon applying Boolean logic to build the electrical circuits in the 1930s that led to modern computers.

Nowadays, this logic **underpins** all digital devices, it exists in almost every line of computer code, and has transformed the way we live our lives.

Boole was deeply interested in the idea of expressing the workings of the mind in a symbolic form. He was also an early thinker on the theory of artificial intelligence, believing that all human thought could be reduced to a series of mathematical rules, and advocating machinery as a way to replace human **drudgery**.

[Adapted from James Titcomb, "Who is George Boole and why is he important", [www.telegraph.co.uk](http://www.telegraph.co.uk), 2017]





## Understanding the text

### 1. Find adjectives and terms in the text that are associated with the following ones.

1. .... genius
2. .... revolution
3. .... thoughts
4. .... equations
5. ...., .... age
6. .... circuit
7. .... code
8. .... intelligence

### 2. Choose the right meaning for each term.

- |  |  |
|--|--|
| 1. <i>Leave</i> means                  | 3. <i>Devise</i> means                 |
| a. <input type="checkbox"/> abandon.   | a. <input type="checkbox"/> assemble.  |
| b. <input type="checkbox"/> start.     | b. <input type="checkbox"/> create.    |
| c. <input type="checkbox"/> attend.    | c. <input type="checkbox"/> destroy.   |
| 2. <i>Herald</i> means                 | 4. <i>Underpin</i> means               |
| a. <input type="checkbox"/> publicize. | a. <input type="checkbox"/> deny.      |
| b. <input type="checkbox"/> consider.  | b. <input type="checkbox"/> underline. |
| c. <input type="checkbox"/> ignore.    | c. <input type="checkbox"/> support.   |

### 3. Answer the following questions.

1. Why is Boole considered one of the most important mathematicians of all times?
2. What does Boolean logic consist of?
3. What was his logic applied to?
4. What other fields was he interested in?

### 4. Read the first paragraph about Boole's life and write which elements you find interesting or curious.

1. ....  
.....
2. ....  
.....