

MASTER INVENTOR

- 1 Thomas Alva Edison was an American businessman who had an amazing talent for invention. Over his career he developed numerous inventions, many of which laid the foundations for technological advancements that still affect us today. While his name is associated with thousands of inventions, it is believed they are not all solely his. Rather, Edison made a career out of improving the inventions of others.
- 2 Thomas Edison was born on February 11th, 1847 in Ohio, USA. He was sick for most of his childhood, so he did not start school until much later than most other children. This caused him to be far behind in his learning. One teacher even told him that he was "addled", believing him to be both crazy and not smart enough to learn anything. After only three months of this treatment, Edison's

mother took him out of school so she could teach him herself. This was much better for Edison, as his mother encouraged him to be creative in all aspects of his work. She let him build models of machines and carry out chemistry experiments in their basement. Despite this early start in science, Edison took up full-time work at the age of twelve, selling sweets and newspapers on trains.

- 3 Edison continued at this job for several years, expanding his business to sell vegetables and meat. He also started publishing his own newspaper, *The Weekly Herald*, which was the first newspaper to be printed on a moving train. He stayed in this job until he saved the life of the stationmaster's son. Out of gratitude, the stationmaster taught Edison how to operate a telegraph machine. He excelled at this job and gained valuable experience that would help to start his career as an inventor. His knowledge of telegraph technology led to the invention of devices, such as the *stock ticker*, which reported the prices of stocks from the stock market. He made an early fortune from this device, earning around US \$40,000. This was just what he needed to begin the life of a full-time inventor.

- 4 It was in 1877, when Edison invented the *phonograph*, that he became really famous. This amazing device allowed sound waves to be recorded on a cylinder. The cylinder had grooves on it and as the cylinder turned, a little needle ran over the grooves, causing recorded music to play. This invention was so unexpected that many people considered the phonograph to be magical. Such a belief earned Edison the title "Wizard of Menlo

Park", which was the town where he set up his industrial laboratory.

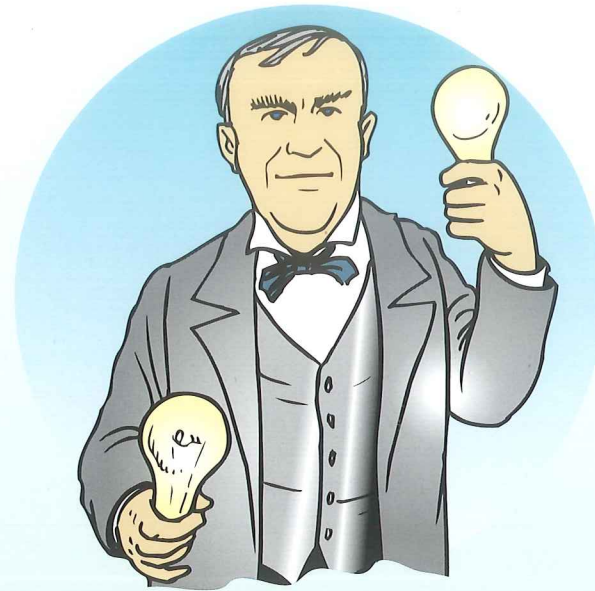
The phonograph proved to be very popular, revolutionising the way people thought about music. It is no surprise then, that Edison also made a lot of money out of this.

- 5 Edison also influenced the development of the light bulb. The light bulb was actually the invention of Sir Joseph Swan, but Edison improved it by developing a filament that would glow longer and give off a brighter light. He continued working on this, testing over 1200 different materials for his filament, until he succeeded in perfecting a light bulb that lasted for over 1500 hours. New York was the first city to be lit by electric lights in 1882, and it wasn't long before other cities followed. Not too long passed before private homes were illuminated by smaller versions of the streetlights. He even devised a system to distribute electricity to homes and businesses. Edison summed up the intensity of his work on the light bulb, saying, "Genius is 1% inspiration and 99% perspiration".
- 6 Edison had a strong creative passion. He became a workaholic whose every waking moment was dedicated to invention. His wife was frustrated with him because he worked so hard and so late, often sleeping in his laboratory. It is said that Edison challenged himself to come up with a new invention every ten days.
- 7 The next big leap for Edison came with his invention of the *kinetoscope*: a box that had a moving strip of photographs inside it. These photos would appear to be moving to

anyone who looked inside. Edison used his kinetoscope technology to invent the *Edison Moving Picture Machine*. Not content with this, his assistant worked on attaching sound to the film. Edison used this technology to set up the first film studio and produced the first major motion picture to include sound.

- 8 Edison was also the king of *patents*, which is a lawful document that states your invention or process is original and unique. It means that nobody else can lay claim to it or copy it. It is the exclusive right to make or sell an invention. Edison protected his inventions in this way so nobody could steal them.

By the time of his death in 1931, this offbeat, brilliant inventor had 1090 patents to his name.



Questions

- | | |
|---|---|
| <p>1 Thomas Edison was encouraged by</p> <p>a his wife.
b his mother.
c his schoolteachers.</p> <p>2 What invention allowed Edison to become a full-time inventor?</p> <p>a the kinetoscope
b the stock ticker
c the electric light</p> <p>3 The phonograph</p> <p>a played music.
b provided light.
c played movies.</p> | <p>4 A patent</p> <p>a is a legal document.
b is part of a light bulb.
c is an original and unique invention.</p> <p>5 The invention of the kinetoscope led Edison to make a</p> <p>a phonograph.
b moving picture machine.
c new laboratory.</p> <p>6 "Genius is 1% inspiration and 99% perspiration" means</p> <p>a success is more about inspiration.
b success is not about working hard.
c success is about hard work.</p> |
|---|---|

Vocabulary

Find words in the text that match the meanings below. The word is in the section shown in brackets.

- 7 Inventive and imaginative (2)
8 Thankfulness (3)
9 A 3D shape with circular bases (4)
10 Lit up or made brighter (5)
11 Out of the ordinary and unusual (8)

Grammar

The words in **BLUE** appear in the text. Match them by writing the correct antonym shown in **RED**.

E.g. *under / over*

- | | |
|---------------|--------------|
| 12 encouraged | deteriorated |
| 13 expanding | stagnant |
| 14 improved | deterred |
| 15 moving | contracting |

Back To The Text...

- 16 Edison lived until
- a his eighies.
b his nineties.
- 17 Edison probably died a rich man.
- a true
b false

- 18 Key words are important words that help you understand the main ideas. Which of the following is a key word in section 4?
- a phonograph
b considered

Cloze

Music for the Masses

Choose **five** of the following words to complete this cloze passage.

tape microphone discs television
design music spun invented

Edison's phonograph was soon improved upon by Emile Berliner, the German designer who **19** the gramophone. Berliner's **20** moved away from Edison's spinning cylinder and replaced it with a flat disc made of wax. These wax **21** were later replaced by polyvinyl chloride discs that became known as vinyl records. The reel-to-reel tape and cassette **22** followed in the 1930s and 1960s respectively. In 1982 Sony launched the first Compact Disc (CD) player. This clever device used a laser beam to read the information on a disc that **23** at several hundred revolutions per minute. We now have the MP3 player, but that's another story.

Challenge Option

Writing: Write a short newspaper article announcing the light bulb to the public.