



When Thomas Edison was a young boy, he did not know his ideas would change the world.

Thomas had problems with his hearing, but this did not stop him from being curious. He loved to learn.



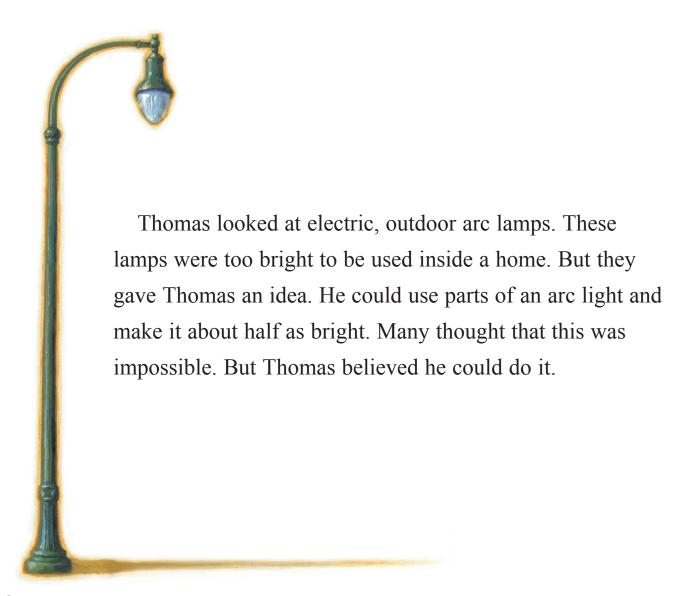
His mother gave him a science book about experiments. Thomas collected bottles, wires, and other things. With these items and with the help of his book, Thomas made a small science laboratory in the cellar of his home.







When Thomas grew up, his science laboratory filled an entire building. One experiment took a lot of his time. Thomas was looking for a way to help people light their homes. Most people used kerosene lamps, but kerosene could catch fire easily, which made it dangerous. It also cost a lot of money. Thomas wanted to create a light that would be safe and cost less.







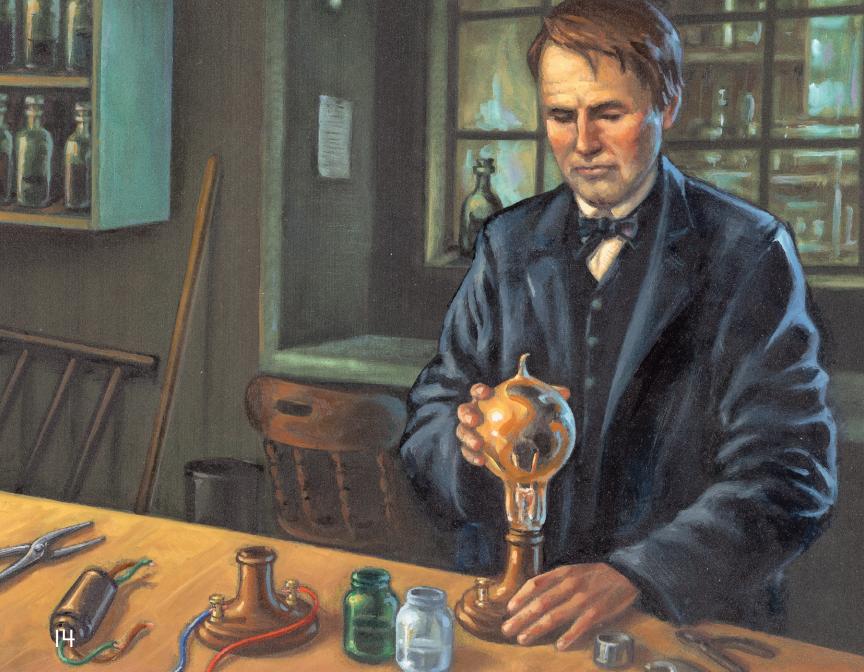
He needed something very thin that electricity could flow through and give off light. He made a filament with a thin strip of paper coated with carbon. When Thomas tried to send electricity through it, the paper burned up.



Next he tried filaments made of metals such as iron, copper, and steel. He twisted each filament into different lengths and thicknesses, then sealed each in its own glass bulb where there was no air.







Each time Thomas tested a new bulb, it burned out. He was not discouraged. Thomas believed that with each failure he learned something important.

Thomas wondered about using carbon again. Before when he'd used carbon, he had put it in a bulb with air. Air had made the carbon paper burn. This time he would make sure there was no air in the bulb. He would do something else a little different, too.



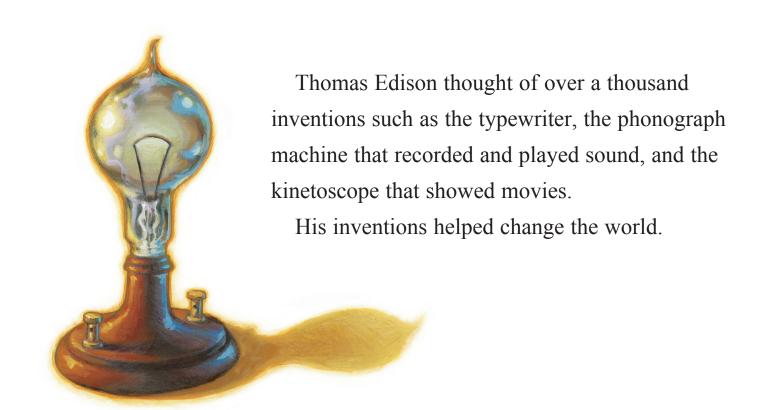
Instead of using a very thin piece of paper, he used a threadlike piece of cardboard. Thomas boiled it with certain chemicals, and then baked it until it became coated with carbon. He used this filament in a new bulb without air.

It worked! This light bulb stayed lit for over one hundred and seventy hours. After a year of work, Thomas had finally succeeded.









For Teachers and Parents

Thomas Alva Edison 1847–1931

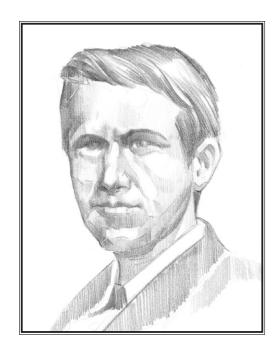
Thomas Edison said, "I never allow myself to become discouraged."

Businessman

At the age of 12, Thomas Edison sold food and newspapers on the Grand Trunk Railroad. He became a telegrapher for the southern United States. He owned Edison Manufacturing Company.

Scientist

Thomas Edison filed over 1,093 patents on his inventions. His most famous inventions are the electric light bulb, the phonograph, and the kinetoscope (movie camera).



Honors

Thomas Edison received a Doctor of Philosophy from Union College Chevalier. He earned the Medal of Excellence from the American Institute. Thomas received a Diploma of Honor from the General Congress of Paris.

Math & Science

Scientist

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