

HOW DOES IT WORK?

LIGHT BULBS



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CHAPTER 1

LIGHT UP THE DARK

You wake up thirsty. It is dark.
You flip the light switch. Now you
can safely walk to the kitchen.



A photograph of a soccer coach, wearing a blue jersey with the number 6, talking to a group of young players in blue jerseys on a grassy field at night. A tall stadium light illuminates the scene from the left. Several soccer balls are on the ground.

We use light bulbs **every** day to help us see. They **are in** lamps, flashlights, and **cars**. They are in **appliances** **such as** microwaves and ovens. They also light up streets **and** parks.

In 1879, Joseph Swan made an **incandescent** light bulb. But it burned out too quickly.

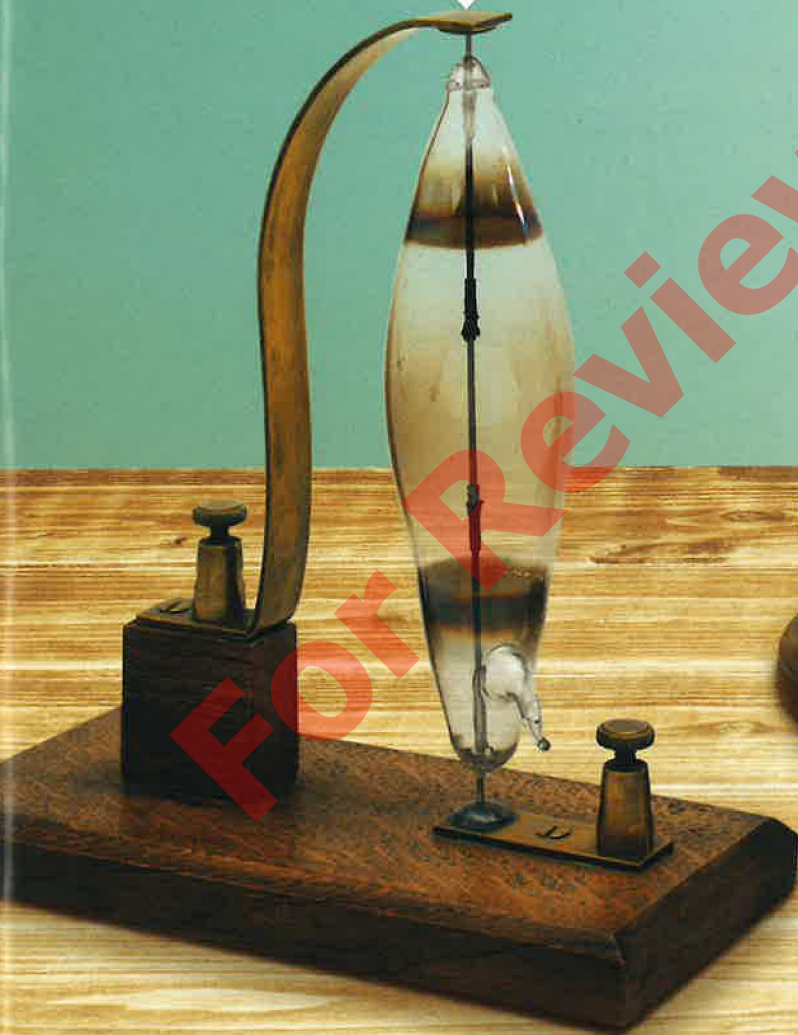
Later in 1879, Thomas Edison also made a light bulb. He used a different material. The bulb burned longer. This bulb is similar to those we use today.

DID YOU KNOW?

Before the light bulb, people used candles and **kerosene** lamps. These provided a flame for light. But the flames were not very bright. Candles and lamps could tip over and start fires.



**Joseph Swan's
light**



**Thomas Edison's
light**

CHAPTER 2

HOW THEY WORK

How does an incandescent light bulb work? It changes **electricity** into light energy. Electricity comes into buildings through wires. It powers lights, computers, and much more.



electrical
wire



To make light, electricity flows to a bulb. Then it flows to a thin, coiled wire inside. The wire is called a **filament**.



A glowing incandescent light bulb is shown against a dark blue background. The bulb is illuminated from within, showing a bright, coiled filament. A green label with the word "filament" points to the glowing wire. The base of the bulb is visible at the bottom.

filament