



INVENTIONS THAT CHANGED THE WORLD

THE

# LIGHT BULB





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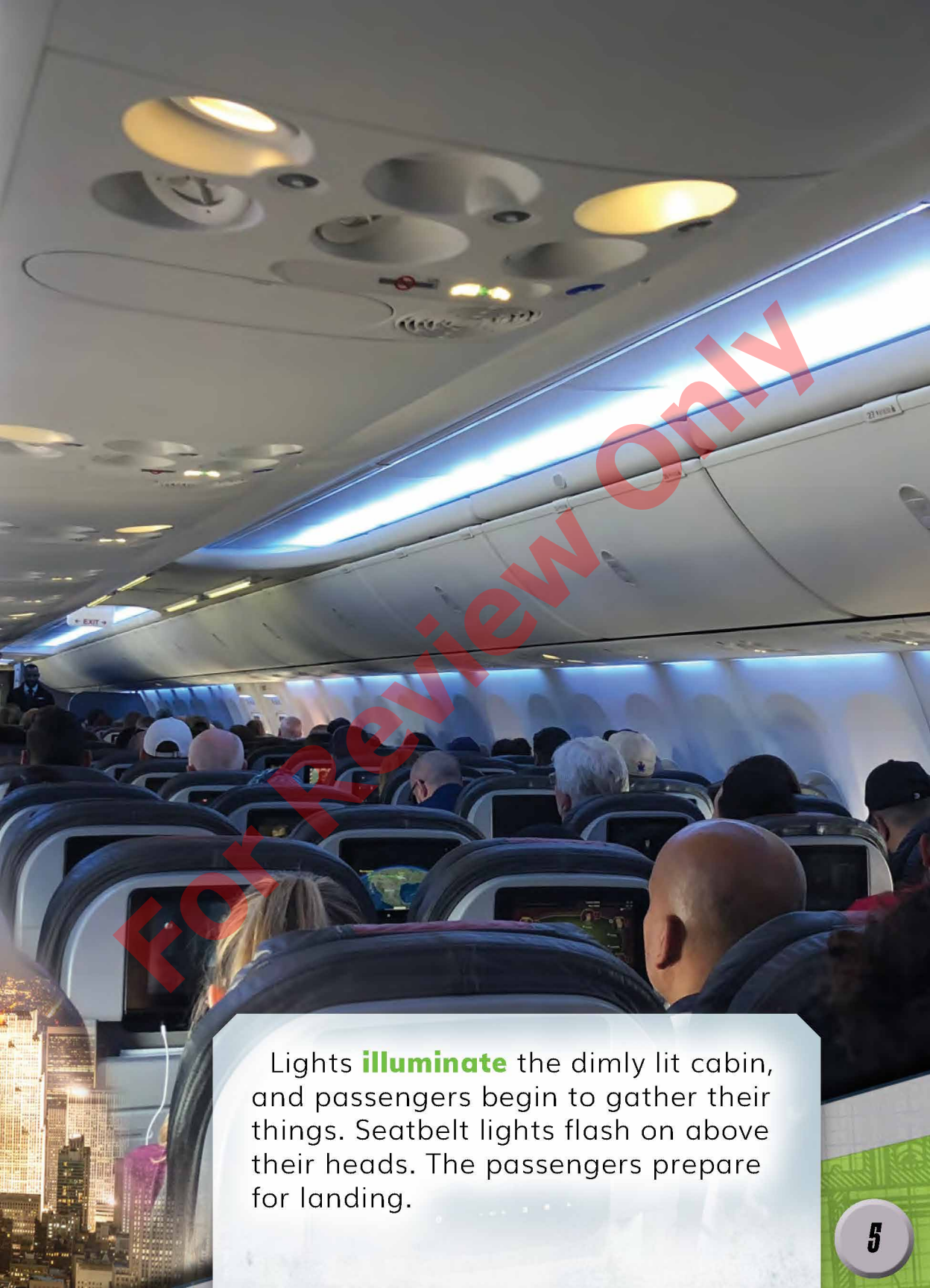
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# READY TO LAND

An airplane circles a large city. From the windows, the passengers see the lights of tall buildings. Far below, cars speed down city streets. It is almost time to land!





Lights **illuminate** the dimly lit cabin, and passengers begin to gather their things. Seatbelt lights flash on above their heads. The passengers prepare for landing.



Outside the plane, flashing lights warn pilots that the plane is near. They know not to get too close. Landing lights under the plane switch on. Now the pilot can see the darkened runway more easily.





Finally, it is time to land. The pilot eases the plane down the runway. Perfect landing! Soon, it is time to leave the plane. Bright signs tell passengers where to go. Light bulbs kept the passengers safe and comfortable!



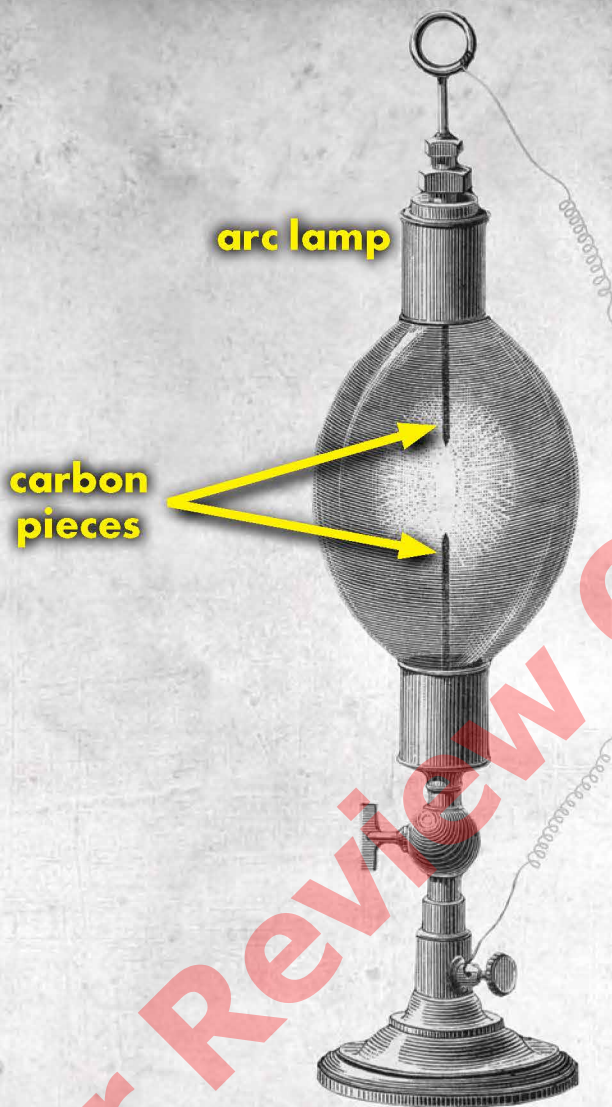
# BRILLIANT IDEAS

Before light bulbs, people lit their homes with candles and gas lamps. But these could be dim, dangerous, and dirty. In the early 1800s, inventors worked to create electric lights. Within 100 years, light bulbs brought light into the night!

**Humphry Davy**

## DID YOU KNOW?

Moon towers once lit many cities around the world. These were tall towers with arc lamps at the top. The only moon towers still in use today are in Austin, Texas!



The first electric light came in the early 1800s. Humphry Davy connected two pieces of **carbon** to a battery. It created a small light between the carbon pieces. This was an early **arc lamp**. By the end of the century, arc lamps lit the streets of Paris and other major cities!



# LIGHT BULB TIMELINE

**1801**

Humphry Davy creates the first incandescent light



**1880**

Edison begins using a carbonized bamboo filament for 1,200 hours of light



**1879**

Thomas Edison patents the first practical incandescent light bulb



**1882**

The first American power station opens in New York City



**1938**

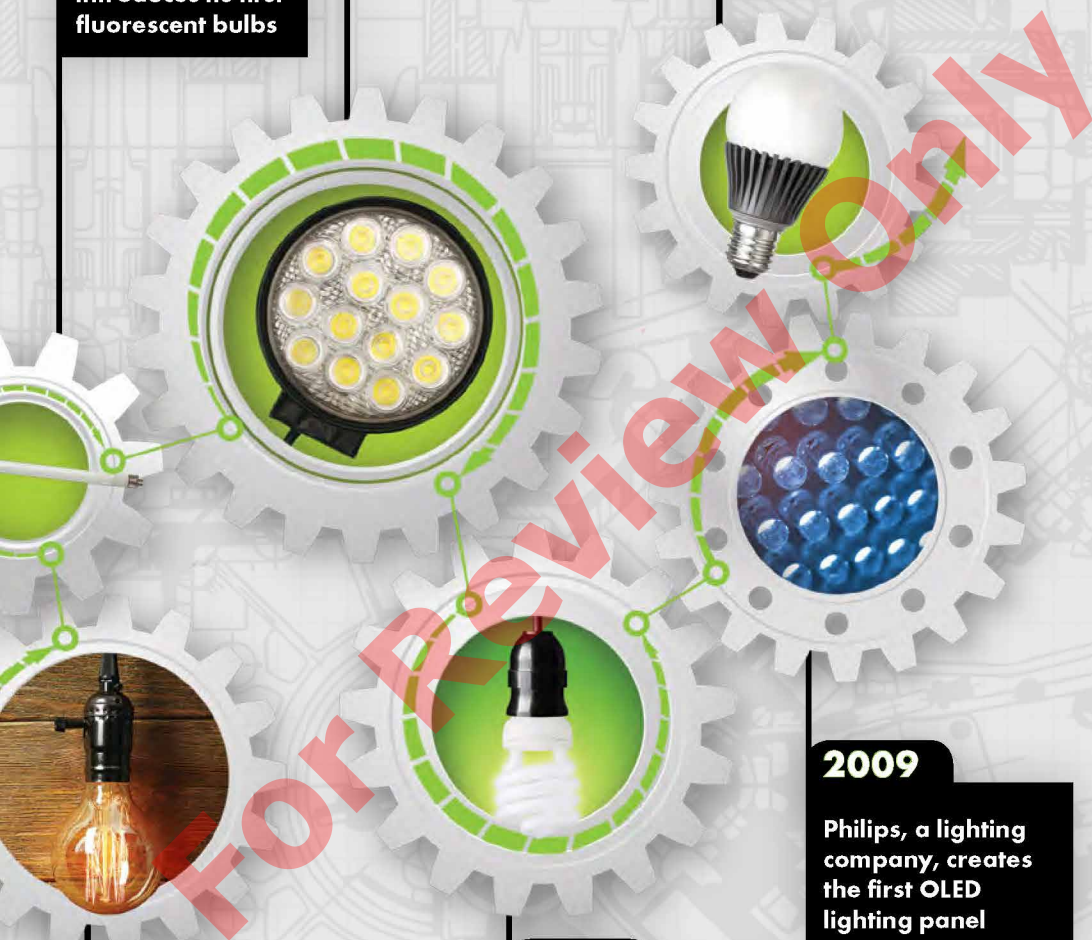
General Electric introduces its first fluorescent bulbs

**1962**

Nick Holonyak, Jr. invents the LED light

**2019-**

Future developments



**2009**

Philips, a lighting company, creates the first OLED lighting panel

**1906**

The first bulb using a tungsten filament is patented

**1976**

The creation of CFLs makes it easier for people to use fluorescent bulbs in their homes