

Light Bulbs

1. Fill in: *heat, light, to heat, to glow, to burn, to melt.*

- a. _____ means to make something very warm.
- b. _____ is the energy that comes from hot things.
- c. _____ is the energy that comes from the sun or lamps, and it helps us see things.
- d. _____ means to produce light.
- e. _____ means to be on fire.
- f. _____ means to change from a solid to a liquid, for example ice becomes water.



2. Match A to B to make sentences.

A

Electricity heats ...

Tungsten is ...

The tungsten wire is so hot ...

The electric energy turns into ...

Air makes hot things ...

B

heat and light.




that it starts to glow.

a tungsten wire.

burn.

a metal that doesn't melt even when it's very hot.

Tungsten*

| | | | |
|------------------------|--|---|--|
| atomic number | 74 | 183.84 | atomic weight |
| symbol | W |  | acid-base properties of higher-valence oxide |
| electron configuration | [Xe]4f ¹⁴ 5d ⁴ 6s ² |  | crystal structure |
| name | tungsten* |  | physical state at 20 °C (68 °F) |

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3. Complete the table.

| the activity | the person who does the activity | the result of the activity |
|--------------|----------------------------------|----------------------------|
| to | decorator | |
| to invent | | |

4. Listen, check your answers to previous exercises and fill in the gaps.

Who is the _____ of the light bulb?

In England, Joseph Wilson Swan shows his _____, a light bulb, in 1878. In the USA, Thomas Alva Edison shows his light bulb to the public in _____. They both have patents for their bulbs. The _____ in their bulbs is not made of tungsten. Inside the _____, there's a vacuum, _____ inert gas.

Sir Joseph Wilson Swan
FRS



Photograph of Swan, circa 1900

Born Joseph Wilson Swan
31 October 1828
Bishopwearmouth, Sunderland,
Tyne And Wear, England

Died 27 May 1914 (aged 85)
Worlingham, Surrey, England

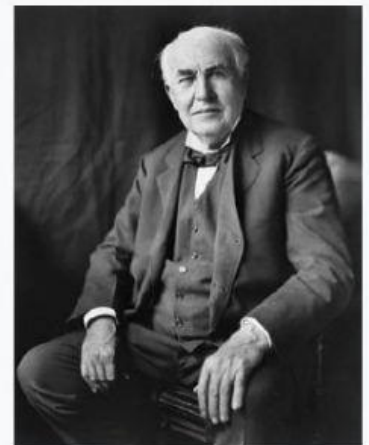
Nationality British

Known for Incandescent light bulb
Photographic process



See also: Thomas Edison
Lightbulbs

Thomas Edison



Edison c. 1922

Born Thomas Alva Edison
February 11, 1847
Milan, Ohio, U.S.

Died October 18, 1931 (aged 84)
West Orange, New Jersey, U.S.

Burial place Thomas Edison National
Historical Park

Education Self-educated; some coursework
at Cooper Union

Occupation Inventor · businessman

Years active 1877–1930