



THE LIGHTBULB

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Innovation station industrial revolution assignment

PURPOSE OF THE LIGHTBULB / WHY IT WAS CREATED.

- The lightbulb was created to give off a better light, than the current most popular light source, the arc lamp. The arc lamp's carbon rod had to be replaced in short periods of time and was a fire hazard. The arc lamp was the only electric light available to light large areas from 1800–1901. The lightbulb was designed to produce a more consistent, longer lasting, and higher quality light source.

PROBLEMS FACING THE LIGHTBULB SINCE CREATION.

- The first lightbulb created burned out within minutes/hours, making them impractical for everyday use.
- The bulbs would also create a black film around the inside, weakening the light emitted even more.
- Next platinum filament was created and used in new bulbs, but still burned out too quickly.
- Also, if the bulbs should break it could release a harmful chemical called mercury.
- Mercury if inhaled, could be harmful to people and/or animals.

SOLUTIONS THAT HAVE IMPROVED THE LIGHTBULB IN OUR MODERN WORLD.

- Scientists today are researching ways to "recycle" the waste energy and focusing it back on the filament, where its re-emitted as a visible light.
- incandescent light bulbs have been replaced with fluorescent or LED lights, which last longer and are brighter.
- researchers at MIT use nanotechnology to build a structure that wraps around the filament, and captures the leaking infrared radiation, reflecting it back to the filament where it is re-absorbed and then re-emitted.

THE LIGHTBULB IN THE FUTURE.

- The lightbulb in the future could be utilized to light up the world for even longer than just a couple continuous hours.
- We could improve the light bulb by working on a bulb the lasts years without needed replacement.
- In the next 25 years I see LED lights becoming more and more popular, because of increased need of energy it is important to save more energy.
- Easily LED's are the ultimate source of saving energy, they are very durable and have the average lifespan of 11 years.

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