

Compact Fluorescent Lights...

- Contain a gas (argon and mercury) that **produces invisible ultraviolet light (UV)** when the gas is excited by electricity. The UV light hits the white **phosphor** coating inside the fluorescent bulb and the coating changes it into light you can see.
- Don't use heat to create light, so they are far more energy-efficient than regular incandescent bulbs.
- Can save on cooling costs in the summer.
- Use 2/3 less energy than standard light bulbs.
- Contain a very small amount of mercury - an average of 5 milligrams, so they need to be disposed of properly.
- Emit less mercury into the atmosphere... A coal-fired power plant will emit 13.6 milligrams of mercury (Hg) to produce electricity required to use an incandescent light bulb, compared to 3.3 milligrams for a CFL.

**Phosphor: something that glows after exposure to oxygen or energized particles such as electrons*

Incandescent Lights

"normal light bulbs"...

- Create light by **heating** a filament made of **tungsten** inside the bulb; the heat makes the filament white-hot, producing the light that you see. Electricity runs through the filament which then turns electrical energy into **heat**. The heat is enough to make the filament white hot, and the "white" part is light. The filament glows because of the heat -- it **incandesces**.
- Contribute to higher cooling costs in the summer.
- Require more electricity than CFLs.