



What's a Watt?

Which appliances use more power?

Background Info

The rate at which something gains or loses **energy** is known as **power**. We measure power in joules per seconds, or **watts**. The amount of power, or the number of watts required to operate an appliance, varies greatly both between different home appliances and within different types of the same appliances. Household lighting choices, for example, require vastly different amounts of power depending on the type of light bulb that is installed. Traditional **incandescent bulbs** use around 60 watts of power while **compact fluorescents** can illuminate the same area for only 18 watts of power.



The majority of **electricity** that we use to power our homes comes from burning **fossil fuels** such as coal. This process releases high amounts of **carbon dioxide**, a **greenhouse gas** that contributes to **climate change**. The less energy that you use in your home the less carbon dioxide will be emitted into the atmosphere.

Standby, or **vampire power**, is the power that appliances use when they are off or in standby mode. Many household appliances draw a small amount of energy even when they are turned off to power a clock or receive a signal from a remote control. Although the amount of power is small (between 5 to 15 watts) the power consumption does add up; it has been estimated that vampire power accounts for 5% of household energy use. Preventing vampire power is relatively easy; simply unplug the appliance from the wall when it is not in use or use a power strip to shut off power to several vampire sources at once. There are also “smart” power strips that can be programmed to turn off the power for you.

The statistics in this activity are national averages based on information from the US Department of Energy. If you would like to investigate the specific power consumption of their home appliances, or find out if they are consuming vampire power, we would recommend purchasing a Kill-a-Watt, a simple device that provides basic information about the real time power consumption of your appliances.

Credits

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