

# 618.988.8731

ElectricalDetectives.com



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## **Basic Facts About Electricity**

Providing safe electricity to your home is how we earn our living. As professionals, we need to know a lot more about electrical currents than the average person. But there are a few basic facts about electricity that would be helpful or at least interesting for the average home owner to know, such as:

- Electricity results from an imbalance of negative and positive charge in subatomic particles.
- Electricity travels at the speed of light - more than 186,000 miles per second!
- A spark of static electricity can measure up to 3,000 volts.
- A bolt of lightning can measure up to 3 million volts!
- The difference between volts and amps is analogous to the difference between water pressure (volts) and water flow (amps). Humans can survive surprisingly high jolts of voltage, including lightning strikes, especially if they are grounded and most of the lightning passes through

to the ground. In fact, many victims of heart attacks are revived by defibrillators, which direct large amounts of voltage to a stopped heart. But as little as 10 milliamperes (0.0001 amps) is enough to kill a human if the current goes directly through the heart.

A watt (W) is a measurement of electrical power. Wattage is derived by multiplying amps times volts.

The Watt is named after Scottish engineer James Watt, best known as the inventor of the steam engine.

An electrical "ground" derives its name literally from the earth's surface. Bare ground is electrically neutral, meaning it contains an equal number of negative and positive charges.

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## Basic Facts About Electricity

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- The first electrical power plant - owned by Thomas Edison - opened in New York City in 1882. The company he founded, Edison Electric, lives on to this day in the form of various electrical providers that have split off into regional utility companies.
- Thomas Edison invented more than 2,000 new products, including switches, fuses, sockets and meters -- almost everything needed for us to use electricity in our homes.
- Benjamin Franklin didn't discover electricity with his famous kite experiment. What he did find out is that lightning is a form of electrical energy. He is very lucky not to have been killed by the experiment. Unfortunately, hundreds of people in the U.S. die from electrocution each year. Because the human body consists mainly of water, it is an excellent conductor of electricity.
- No single person can be said to have "discovered" electricity. Ancient Egyptian texts dating to thousands of years B.C. make reference to electrical shocks delivered by eels in the Nile River, but the first mention of the English words "electric" and "electricity" didn't appear until the 1600s.
- Great gains in scientific understanding of electricity occurred in the early 1800s by experimenters with names like André-Marie Ampère (from whom we acquired the term "ampere"), Michael Faraday, who invented the electric motor in 1821, and Georg Ohm, who mathematically analyzed the electrical circuit and whose name also lives on in electrical terminology.



## DIY: Icy Chalk Art Cubes

Using just a few simple ingredients, you can create a unique and

- You'll need a simple ice cube tray to start. Fill each slot with 30% baking soda and 40% corn starch.
- Add a couple of drops of liquid water color or food coloring. (Liquid water color will be more vibrant. You can find bottles of it at local craft stores or on sites such as Amazon.com).
- Fill the tray the rest of the way with water, gently mix, then freeze until solid.
- Take your ice chalk outside, grab a spray bottle of vinegar, then spray the cubes with it. The chalk explodes with color!

Source: [www.drawingajeweledrose.com](http://www.drawingajeweledrose.com)



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## Household Hazards Keep Increasing for Toddlers

It seems like evening news programs are always talking about a new hazard you've never thought of. Something that crept up on me and a lot of other people recently is the danger presented by those popular laundry detergent pods. A recent news story reported that some 17,000 children under the age of six have gone to emergency treatment centers after ingesting laundry pods or getting detergent in their eye.

To a child the colorful laundry packets may resemble candy, but they can cause serious intestinal injury if bitten and swallowed. It's common for moms and dads to have a child close by when doing laundry. Often they make a game of it by inviting the youngster to help out handling the items to be washed. But all it takes is a few seconds with your back turned for a toddler to grab one of those pods.

Please be sure to keep all household cleaning products out of the reach of small children. If possible, put a lock on the door leading to your laundry area so they can't get in to "play house" when you're not watching.

Also, keep those laundry pods in their original container so they don't look like pieces of candy waiting to be grabbed. And, read the warning label so you know what to do if a child does ingest one while you're around.

Oh, and put a childproof lock on those front-loading washing machines. Small children love to open the doors and crawl inside.



## Coupon Corner

**\$20 off**

**Any Service**

One time use. Expires **07/31/15**. Cannot be combined with other offers. Coupon must be presented at time of service.

**10% off**

**New Electrical Panel**

One time use. Expires **07/31/15**. Cannot be combined with other offers. Coupon must be presented at time of service.

**\$80 off**

**Interlok Kit Installation**

One time use. Expires **07/31/15**. Cannot be combined with other offers. Coupon must be presented at time of service.

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## Beat the Summer Heat

Check out these unique tips for beating the summer heat!

- When the air outside is dry, hang a damp sheet in an open window. Incoming breezes will be cooled by the evaporating water.
- Close curtains and blinds with sun-deflecting white on the window side. This can reduce the heat passing into your house by as much as 45%!
- Place a shallow bowl of ice in front of a fan and enjoy the breeze!
- Let your computer take a nap. Set it to a low power mode which puts it to sleep after 10 minutes so it generates less heat.
- Skip the drying cycle on the dishwasher and simply air dry your dishes. Use the dishwasher at night when the air is cooler.
- Stay hydrated! Avoid beverages that contain alcohol, caffeine, or lots of sugar. These are dehydrating. Opt for hydrating fruits and vegetables such as

Source: [www.realsimple.com](http://www.realsimple.com)