## People be very different from how it

**History** 



People always fear change.

People feared electricity when it was invented, didn't they?-Bill GatesElectricity is something that we use on a day to day basis. We use it for many things. A world without it would be very different from how it is today. So, how did we first learn about electricity? 1st DiscoveredMany people give Benjamin Franklin credit for being the 1st person to discover electricity which is not the case. His experiments only showed the connections between lightning and electricity. About 2000 years ago, the Ancient Greeks discovered that rubbing fur on amber (fossilized tree resin) would cause an attraction to happen between the two. So they discovered static electricity. Around the 17th century there was an English scientist named William Gilbert.

He established the science behind electricity and magnetism. Another Englishman named Sir Thomas Browne was inspired by Gilbert's works and performed experiments and wrote books on what he found. Gilbert and Browne are the men who are accepted as the ones who used the term " electricity". Gilbert used the Latin word " electricus" to describe the force some objects exerted when rubbed together in 1600. A few years later, Browne was actually the one to 1st use the term " electricity" when he wrote his books based on Gilbert's work. Years later, in 1936, archaeologists and researchers found a clay pot in Baghdad. The pot contained copper plates, tin alloy, and an iron rod. It is believed to have been one of the first batteries.

In the 1930's, researchers and archaeologists found pots that they believed to possibly have been ancient batteries which were meant to produce light at ancient Roman sites. The Sentry Box ExperimentBenjamin Franklin wanted to see if lighting and static electricity was made of the same stuff. In 1749, experiments were performed in Philadelphia to test his idea that lightning was an electrical discharge from cloud to cloud and from cloud to Earth. He still wanted to find a way to capture electrical " fire" from storm clouds and bottle it up so it could be studied alongside normal electric charges from Earth. He made a proposal to draw electrical charges from the clouds;" On top of some high tower or steeple, place a kind of sentry-box big enough to contain a man and an electrical stand. From the middle of the stand let an iron rod rise and pass bending out of the door, and the upright 20 or 30 feet, pointed, and very sharp at the end. If the electric stand be kept clean and dry, a man standing on it when such clouds are passing low, might be electrified and afford sparks, the rod drawing fire to him from a cloud." If anyone was frightened by the possibility of being fried by a lightning bolt, Franklin offered some other words;" If any danger to the man should be apprehended (though I think there would be none), let him stand on the floor of his box, and now and then bring near to the rod the loop of wire that has one end fastened to the leads, he holding it by a wax handle; so the sparks, if the rod is electrified, will strike from rod to wire and not affect him.

" The sentry-box experiment was published in London in 1751. The French's ExperimentThere was one person who didn't agree with the sentry-box experiment. Abbe Nollet (also known as Jean-Antoine Nollet), the leading French electrical experimenter of the time didn't think that Franklin's

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experiment could be done. Fortunately for Benjamin Franklin, Louis XV, the king of France, thought it was a brilliant idea and encouraged his scientists to do the experiment and confirm Franklin's theory that lightning and electricity were similar.

On May 10th, 1752, in a garden in Marly (about 18 miles away from Paris), Jean François D'Alibard set up a pointed metal rod 40 feet long into the sky, resting on an insulated table. A storm cloud passed overhead. According to Franklin's accounts, at least one person cautiously came close and attracted sparks from it using an insulated wire loop. The experiment, which was successful, was repeated many times in the summer of 1752 by enthusiastic French scientists. They attempted to outdo each other so much that the height of the bar gradually increased to 90 feet.

British scientists tried and failed to do the experiment the French did. They blamed the failures on a damp summer in 1752. They were also trying to outdo the French as well. They were still very enthusiastic about the French's news. Benjamin Franklin became very famous internationally as a result of his experiment. The Kite ExperimentFranklin was planning to do the same experiment that the French had done. He was impatient waiting for a church steeple to be put up for the experiment. He decided to do the kite experiment instead.

Here's how it happened; Benjamin Franklin constructed a kite with a wire attached to the top of it to act as a lightning rod. At the bottom he attached a hemp string and attached a silk string to it. The hemp was wetted by the rain, causing it to conduct an electrical charge quickly. The silk string, which

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was kept dry, wouldn't. A metal key was the last piece. Franklin attached it to the hemp string. With his son's help he got the kite up in the air.

Franklin moved his fingers near the key and felt a spark as negative charges in the key were attracted to the positive charges in his hand. Using the Leyden jar he collected the ' electric fire'. This is Joseph Priestley's account of the event;" One very promising cloud had passed over it without any effect; when, at length, just as he was beginning to despair of this contrivance of his, he observed some loose threads of the hempen string to stand erect and to avoid one another, just as if they had been suspended on a common conductor. Struck with this promising appearance, he immediately presented his knuckle to the key, and (let the reader judge of the exquisite pleasure he must have felt at the moment) the discovery was complete. He perceived a very evident electric spark.

" The Lightning RodBenjamin Franklin was a firm believer in lightning rods. He began recommending them in 1751. The new experiments in lightning bore out his belief that lightning rods could effectively protect the public from bolts in the sky. He wrote, " The purpose of the rods, was not to be struck by lightning, but to prevent strikes from happening." The rod was supposed to continually draw off charges from the clouds and shunt them to the ground before they could become strong enough to form a lightning bolt. He also said, " Draw the electrical fire silently out of the cloud before it came nigh enough to strike." The Europeans didn't rush to buy lighting rods. This was probably because they either didn't believe in them or because they didn't know how they worked. People were also afraid that any lightning rod attached to their homes would " attract" lightning that would otherwise have not been there. Franklin wasted no time and got a lightning rod attached to his house in 1752. Soon enough the colonists would be putting up rods on their rooftops. Connection to The American RevolutionThe sentry-box experiment and the kite experiment may have been very important to the US. One of the experiments came with a very useful invention; the lightning rod, which saved the lives of thousands of people. Benjamin Franklin was extremely popular in Europe, especially France which was where the first sentry-box experiment had been done.

Because of that, it may have helped the US win its independence. Had the last king of France not have been fond of Franklin, he may have not listened to the colonist's pleas for the French's support in fighting the British. Supporting a bloody revolution against a monarchy wasn't the king's style. It might have sparked ideas in his own subjects. A plea from a commoneer would have hardly reached royal ears. Franklin's reputation, and his closeness with the king, was decisive in bringing the French to fight with the colonists to fight against the British. You should care about the history of electricity because we use it everyday.

Every time you turn on a light, every time you charge your phone, every time you use the air conditioning system. If we keep using the amount of electricity we do now, we will probably run out of it, sooner or later. So, I challenge you to use less electricity, so that it won't be wasted. Turn off the light when you leave the room, take shorter showers, and unplug your electronic device once it is fully charged. If you leave it in, it wastes a lot of energy. So, use less electricity, and we can have electricity for a lot longer.