

Benjamin Franklin was one of the Founding Fathers of the United States. He was a printer and an ambassador who signed the Declaration of Independence. He also wrote a famous book called *Poor Richard's Almanac*.

He was the first person to say positive and negative electrical charges might exist. Even before atoms were discovered, he determined how the positive and negative electrical charges work. **Electricity** is one of the primary forces in nature. It holds matter together by the positive and negative charges in atoms. Electricity is the most versatile of all energy because electricity can power anything. It is also very dangerous.

Franklin was very interested in electricity and studied it by attaching a metal key on a silk thread to a kite and flying it during electrical storms. In 1752, electricity ran down the wet kite line to the key and produced a spark (static electricity). Because Franklin had put his hand next to the key, he saw the sparks and felt the shocks. This meant lightning is electricity and a lightning bolt is

a massive electrical spark. What he did was very dangerous! Others have tried the same thing but died by electrocution.

A few months later, he invented the **lightning rod**, also called a lightning conductor. It is an iron rod attached to the tallest part of a building, with wire connecting it to the ground. Lightning strikes the building and travels through the rod and the wire to the ground, instead of hitting humans and animals.

Franklin also invented **bifocals** around 1769. Bifocals are eyeglasses with two types of lenses for each eye (bi = two + focus). The wearer uses the top of the lens to look at something in the distance and the bottom of the lens to look at things, such as a book, up close.

Benjamin Franklin's discovery of electricity is very important. This led to others creating the first battery, the electric motor, the generator and transistor, the lightbulb, electricity as power, and many other important inventions.

Exercise:

1. What are some advantages of electricity? _____

2. What are some disadvantages of electricity? _____

3. Why is Benjamin Franklin's discovery important to our lives? _____

4. How is electricity important to inventions in general? _____

