

KEY

## SPARKS AND SHOCKS

1. Electrical experiments were first conducted in earnest in the 18th Century.
2. William Gilbert, an Englishman, was the first scientist to investigate electricity and magnetism.
3. The word electron comes from the Greek word for amber (ήλεκτρον).
4. In the 18th Century, 3 important experimentors of electricity and their contributions were:  
Hauksbee - electrostatic generator  
Gray → Electrical conductivity  
Duray - color has no affect on conductivity & repulsion
5. The 2 types of electricity were initially referred to as resinous (for amber) and vitreous (for glass).
6. Today we refer to the 2 types of charges as positive and negative.
7. Unlike charges attract each other, and like charges repel each other.
8. A pinwheel rotates because the tiny points are repelled by the charged air molecules.
9. The first plate machine, similar to what's in our classroom, was first invented around 1760.
10. A spark-generating machine built in 1784 by John Cuthbertson was used to test lightning rods, with the result that ship lightning rods were changed from iron to Copper.
11. With his famous kite experiment, Benjamin Franklin demonstrated that lightning was indeed electricity.
12. The Leyden Jar is a device that stores electricity and produces huge sparks.
13. Early devices used to measure electrical charge were called electrometer.