

# Electromagnets

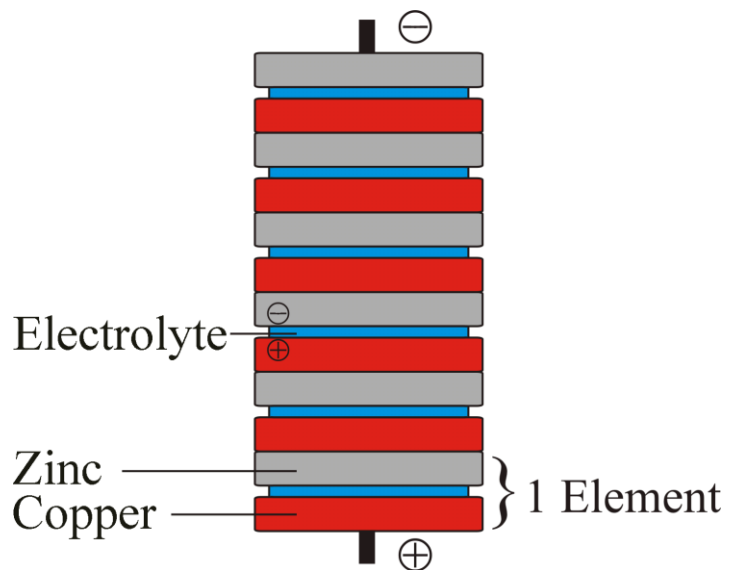
## 1. Voltage and resistance

### CONCEPT 2

### VOLTAGE

#### NOTES

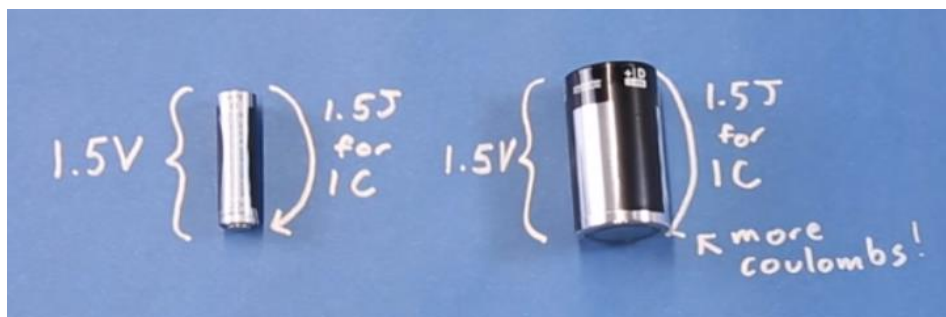
Voltage was discovered by Italian Physicist Alessandro Volta (picture below), he created the first electrical battery – the Voltaic Pile (Picture below):



Voltage is how much energy we need to move charge, and how this is achieved by a cell. The video below is excellent (if a bit quick) at explaining the numerical values for calculating voltage.

<https://www.youtube.com/watch?v=z8qfhFXjrw>

Voltage describes the amount of energy needed to do work on a unit charge. An example is below taken from the video.



So the smaller AA battery has less charge in it (because it is smaller in volume) and it will not last as long as the D battery doing the same amount of work.