

Name: _____
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Science 9

8.1 Electric Potential Energy and Voltage

Electrochemical cells convert **chemical** energy into **electrical** energy. Connecting cells together forms **batteries**.

The ends of batteries are **terminals** – connecting to them can allow electrons to flow from the battery through a device that converts electric energy into different forms.



Electric Potential Energy

Electric energy can do **work**.

Electric energy that is stored is **potential** energy

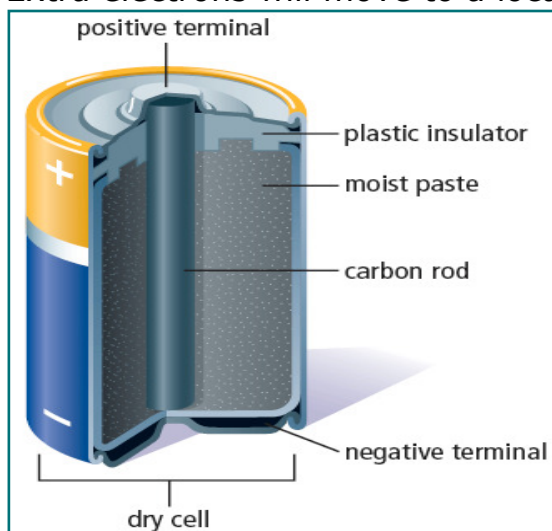
When electric energy is moving it is **kinetic** energy.

Electric Potential Difference

The amount of electric potential energy per coulomb of charge is called the **potential difference** or **voltage**.

This can be measured with a **voltmeter**.

Extra electrons will move to a location where there is **fewer** of them



Producing Voltage

Electrodes in an **electrolyte** chemically react to produce electrons and relatively difference charges on each **electrode**, by doing so this creates a **potential difference**.

Source of Electricity:

What do sources of electrical energy do these pictures represent? Use page 274 to fill in the blanks.





