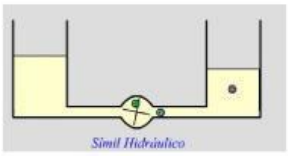
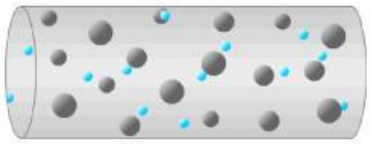
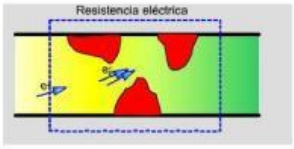
Electric quantities: Voltage, current and resistance

Voltage **is** the _____ between the _____ _____ at two points in a circuit. The **charge** always _____ from the point where the ***energy is*** _____ to the _____ ***point***. If there is no **voltage** there is no **current**.

Voltage **is represented** by the letter ____ and in the International System of Units (____) it is **measured** in _____ (**V**). This is also **called** _____.







Voltage /voltich/ **(V,** ***volts*****)** **Current** /karent/ **(I,** ***amps*** **/*emps*/)** **Resistance** /rizistens/ **(R,** ***ohms*****)**

The **current** **is** the **number of** _____ that _____ through ***a specific point in 1*** _____. It **is represented** by the letter ___ and in ***SI units*** **is** _____ in **amperes** or **amps** (___).

The **resistance** **is** the _____ of the components of a **circuit to the** **flow** of the _____ _____. It **is represented** by the letter ___ and in ***SI units*** **is measured** in **ohms** (**Ω**).

Measuring instruments

A **voltmeter** _____ the **electrical** _____. To **measure** the voltage of a **component** you **connect** the **voltmeter** in _____. Normally a **voltmeter** has several **scales** (*escalas*) - it can **measure** _____ or **millivolts**.

An **ammeter** **measures** the _____. To **measure** the **current** of a **receptor** you **connect** the _____ in _____. It can **measure** _____ or **milliamperes**.





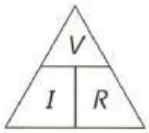


Voltmeter /voltmita/ **Ammeter** /ammita/ **Multimeter** /moltimita/

A **multimeter** (or **polymeter**) **measures** different **electric** _____ (**voltage**, **current**, _____) on different **scales**. You **can choose** the best **scale** for different **quantities** using the **rotating** /routeitin/ **dial** /daiol/.

Ohm's Law

The _____ **relationship** between _____, _____ and **resistance** **is** _____ **Ohm's Law**, and **is expressed** mathematically as: $V=I \cdot R$



This **shows** that **current** and **voltage** **are** directly _____ for any given _____.

Rational electricity use

Electrical energy _____ **has** a **serious** **impact** on the _____. **There are** three **ways** we **can help** to _____ this **impact**:

- **improve** the energy _____ of electrical **devices**,
- **reduce** _____ and
- **use** _____ **energy sources**

LIVEWORKSHEETS