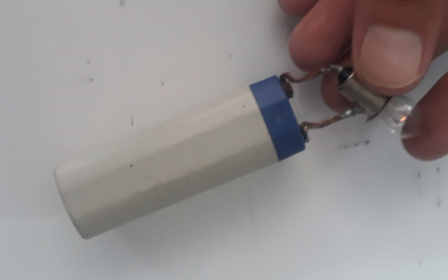
Practical electricity for class 6

**Day 1 : Introduction of electricity**

* Introduction by questioning them about what they know about electricity, notion of energy, can they identify some of them? : Batteries, sector, hydraulic, solar, wind, nuclear.
* Do an exercise with them where they need to identify if an object is electrical or not :
* Choose around 10 objects: pen, bulb, computer, etc… and ask one of them for each object to identify if it is electrical or not.
* When they finish correct with them and explain how we can recognize a electrical object.

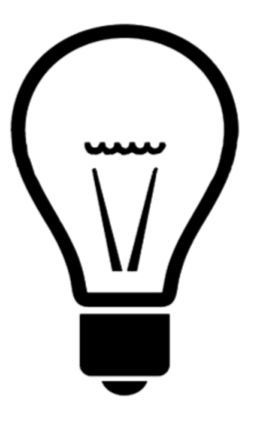
**Day 2 : How to light a bulb ?**

* Reminding what they saw last time about sources of electricity.
* Show them a battery and a light bulb and ask them how can we light the bulb only with the battery ?
* Draw some battery on the board (no symbol) and ask them how we can put the bulb on the battery to light it ?



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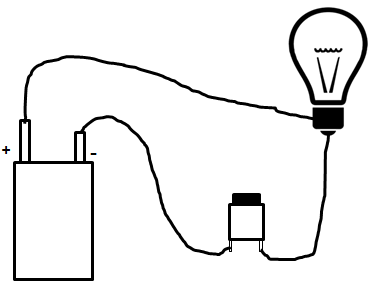
* If they don’t find show how to do it, introduce the fact that we have to terminal on a bulb (also on each electrical component). To light the bulb you need that electricity flows through the bulb, it’s why you have two terminal, one to enter end the other one to go out.
* Electricity needs a close loop to work, if it’s not the case, nothing work because electricity cannot flows.

**Day 3 : Conductor and insulator**

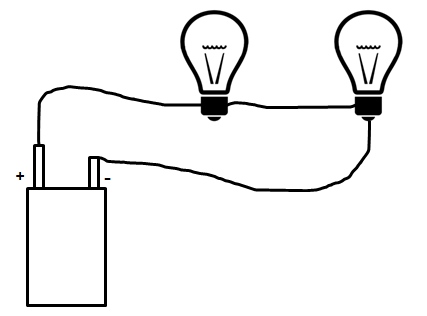
* Can electricity flows everywhere? Can we identify different groups of material or object?
* Normally they already know about conductor and insulator.
* Create a game with them, take 10 objects (approximately) some conductor and some insulator, try to have some object composed of two materials, one insulator and one conductor.
* Ask them to classify those object in two groups : conductor and insulator.
* Create a simple circuit: 1 battery + 1 bulb. Leave the circuit open to try each object.
* Ask one of them to come at the board, choose one object and connect it in the circuit to see if electricity flows through or not.
* Correct with them what we figure out compare to what we expected.
* Show them that we don’t have only conductor and insulator but also some material (like a banana) which is between, because electricity can flows through but not easily.
* It’s important that they understand that what is important it’s the material and not the object!!

**Day 4 : Wiring an electrical circuit**

* Reminding what they saw previously and the notion of loop.
* Draw on the board a simple circuit (no diagram but with pictures) : 1 battery + 1 switch + 1 bulb



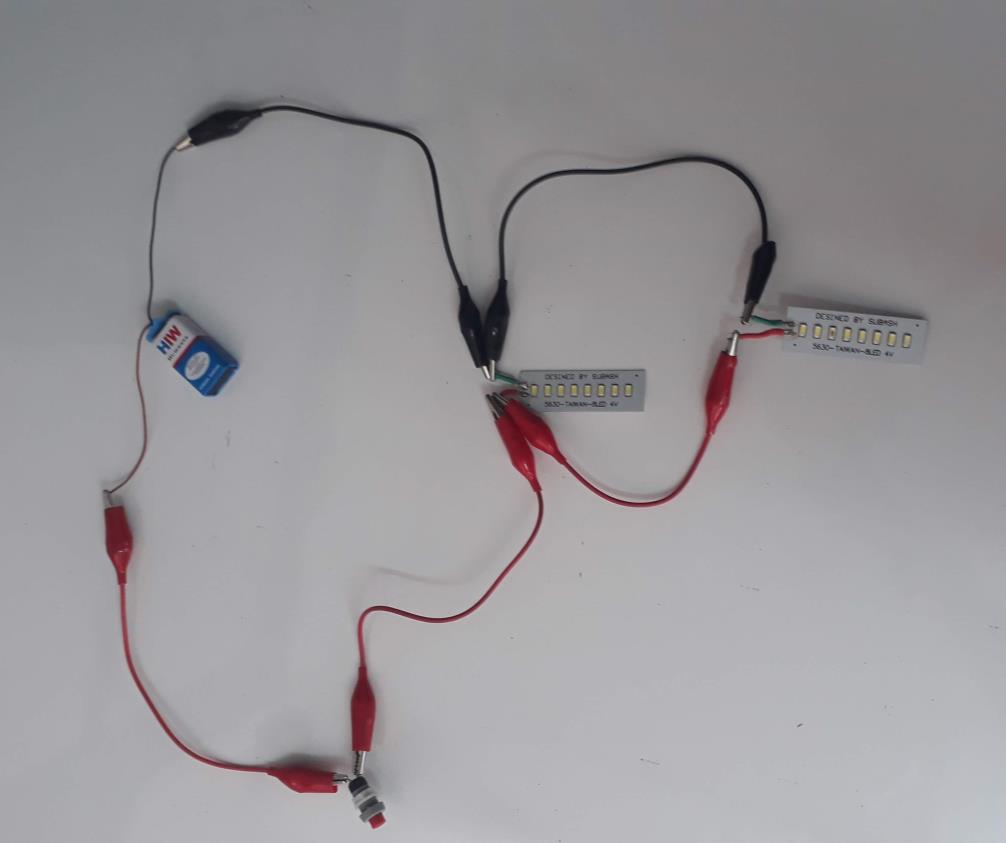
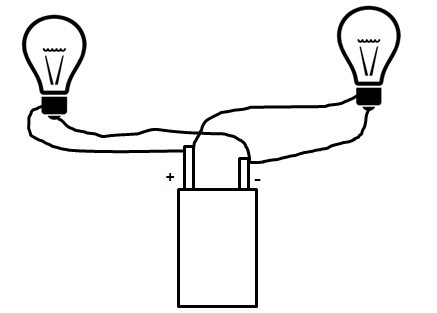
* Do them create it (4 or 5 groups)
* Remind the notion of open circuit and close circuit, explain what happen in the switch. Conclude one more time with loop notion and why it’s necessary if we want electricity to flows.
* Draw a second circuit on the board with : 1 battery + 2 bulbs + 1 switch



* Ask them what we expected? Less light, same light or more light?
* Do them create the circuit and ask them what they observe? Do we have a different?
* Conclude with them than if you have two lamp connected to each other they are less bright.

**Day 5 : One loop & two loops**

* Ask one of them to come at the board and draw a circuit with : 1 battery + 2 bulbs + 1 switch
* Correct with him/here if necessary. And remind what we observed when we have two bulbs in a circuit (they already created a series combination)
* Tell them that we have a other way to connect this bulbs together, we can create two loops (parallel combination)
* Draw a parallel combination on the board with 1 battery + 2 bulbs + 1 switch



* What can we expect in this situation: less light, same light or more light ?

Don’t put the switch for this class

* Create different groups to create the circuit.
* Compare with them the different between the two circuit, one loop and two loops :
* Show them than if you break one light in the one loop circuit everything is off but not in the case of the two loops circuit.

Ask them how a house is wiring ? only one loop or lot of different loops ?

Conclude with this point and the importance to have different loops in a circuit.