



Current. Ammeter.

- 1) revise theme current sources, construction and principle of work of the current source
- 2) know the meaning of current
- 3) make electric circuit experimentally and using symbols



Translate into English:

Electric current	Электрический ток	Электр тоғы
Direction of electric current	Направление электрического тока	Электр тоғының бағыты
Electric circuit	Электрическая цепь	Электр тізбегі
Direct and alternating current	Постоянный и переменный ток	Тұрақты және айнымалы тоқ
Effect of electric current	Действие электрического тока	Электр тоғының әсері
Switch	Ключ	Кілт
Bulb	Лампочка	Қыздырушы шам
Ammeter	Амперметр	Амперметр
Cell	Гальванический элемент.	Гальвани элементі
Conducting wire	Провод	Сым
Battery	Батарея	Батарея
Electric charge	Электрический заряд	Электр заряды
Coulomb (C)	Кулон (Кл-един. измерения заряда)	Кулон
Sources of current	Источники тока	Ток көзі

Questions:

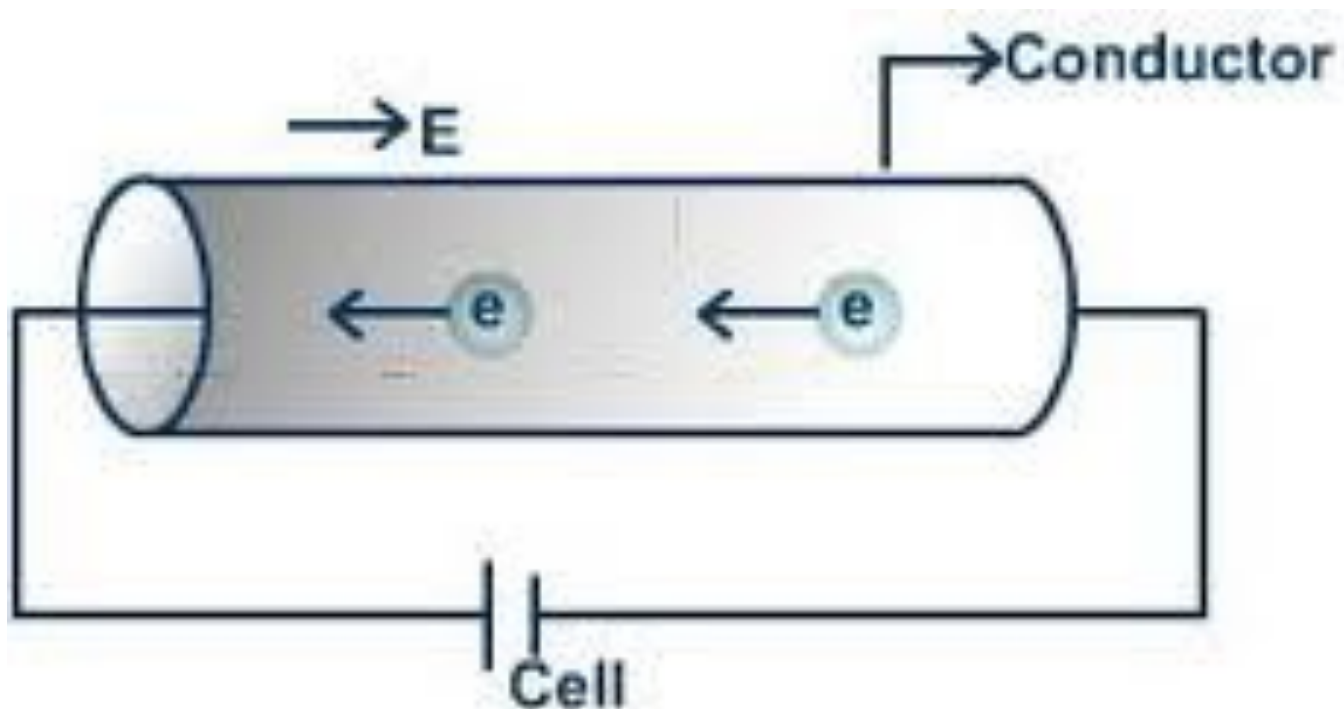
❖ **Who said the term
“electric current”
for the first time?**

**André-Marie
Ampère
(20 January 1775 –
10 June 1836)**



Current - Сила тока (I, A)

Current is the amount of charge passing through a point in the circuit in one second.



Current

$$I = \frac{q}{t}$$

I – Current (A)

**q – Charge
(C)**

t – time (s)

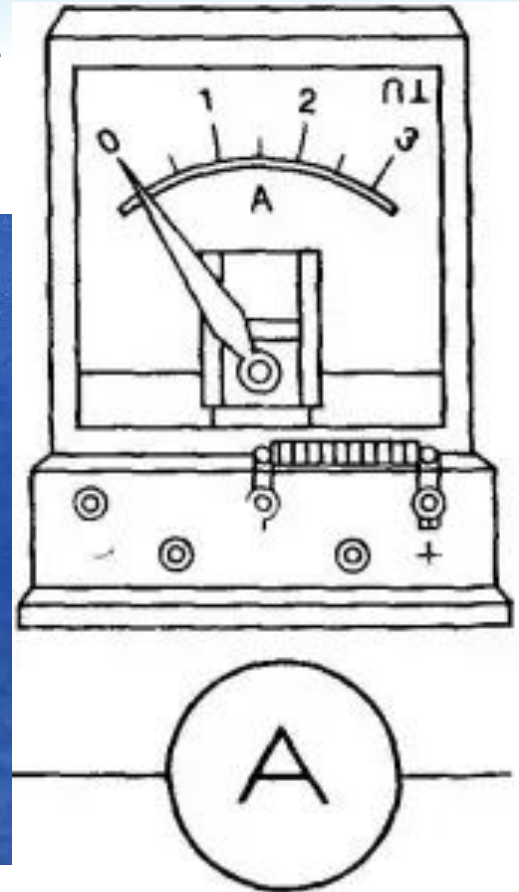
Units of current

$$1 \text{ Ampere} = \frac{1 \text{ Coulomb}}{1 \text{ second}}$$

Caution!
1A is dangerous for life!

Ammeter (Амперметр)

Ammeter is the device for measuring current



Problem solving

A charge of $3.6 \times 10^4 \text{C}$ passes through a bulb in 1 hour. What is the current passing through the bulb?

a

10A

b

3.6A

c

7.2A

Practice:

1

Find current in electric bulb , if electric charge of 300C travels through it during 10min.

2

What charge will travel during 3min through ammeter if current is 0.2A?

3


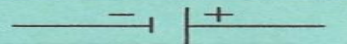
Current is 200A. What is the time the charge of 60000C travels through it?

4


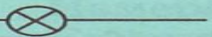
Current in the iron is 0.2A. What charge will travel through it during 5 min?

Symbols of electric device or Electric elements



Источник тока

Лампа

Ключ

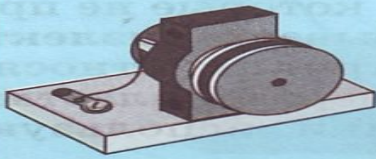
Соединительные провода




Зажимы электрической цепи




Электродвигатель




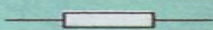

Катушка с сердечником



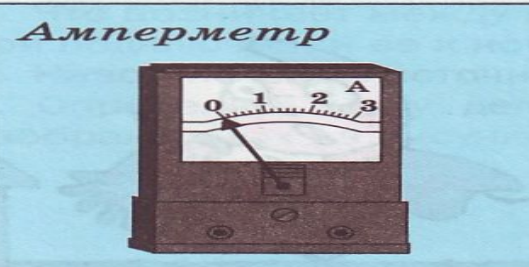


Электрозвонок



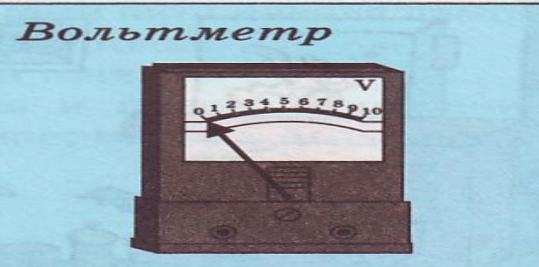


Резистор

Амперметр

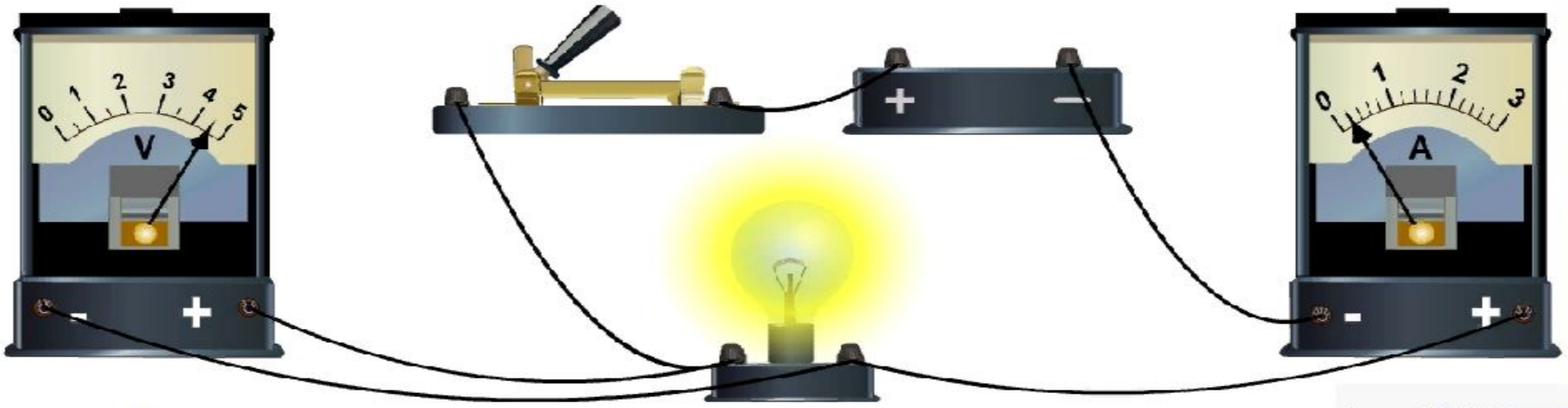
Вольтметр

Draw an electric circuit diagram of this pictures:



Подключение вольтметра

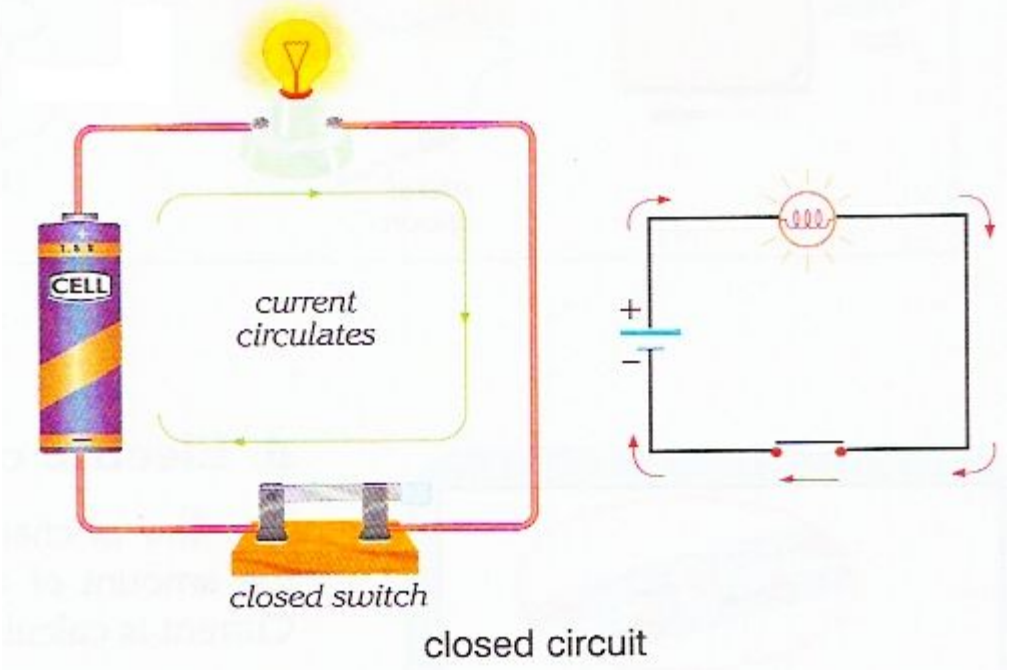
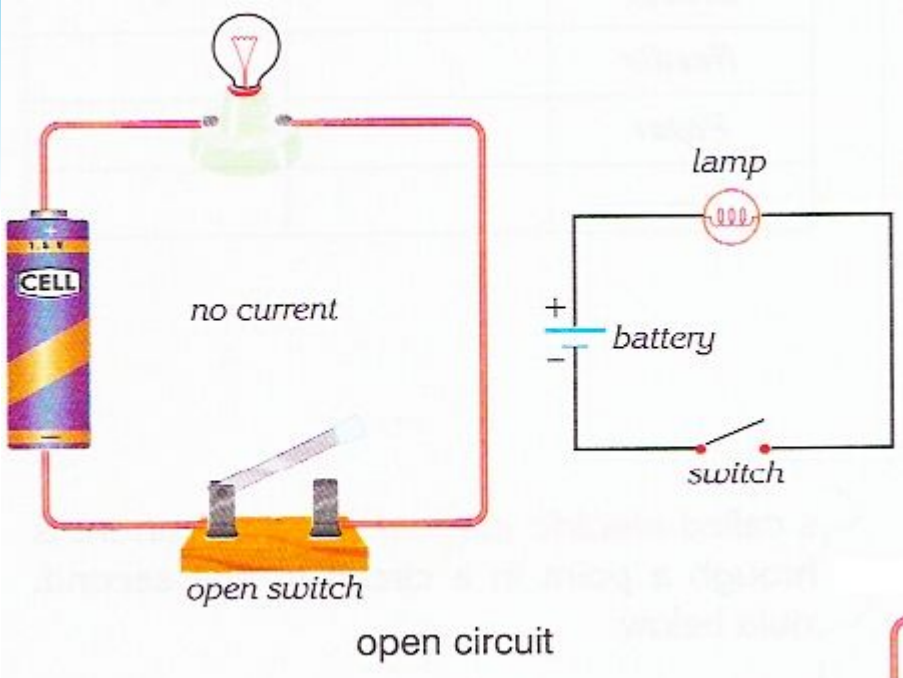


Make a circuit:

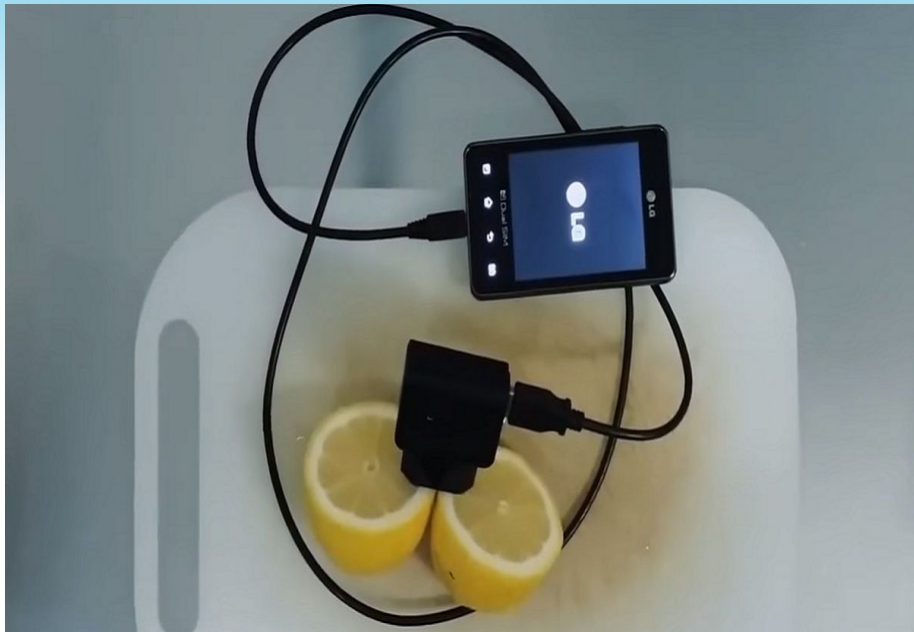
Make a circuit:

Draw a circuit into the exercise-book,
Write down

I = ...



Alternative energy sources



ФОНАРИК ИЗ КАРТОФЕЛЯ
В ПОИСКАХ АЛЬТЕРНАТИВНЫХ
ИСТОЧНИКОВ СВЕТА

A man wearing a green tactical vest and a grey cap is holding a flashlight. In the foreground, there is a potato battery setup consisting of two potatoes connected by wires to a glowing yellow lightbulb and a digital clock showing 12:00.

VILED®

Feedback:



I didn't like
the lesson



I didn't understand
anything and was
waiting
the end of the
lesson



I understood
everything.
I liked the
lesson.



Thank You !

