

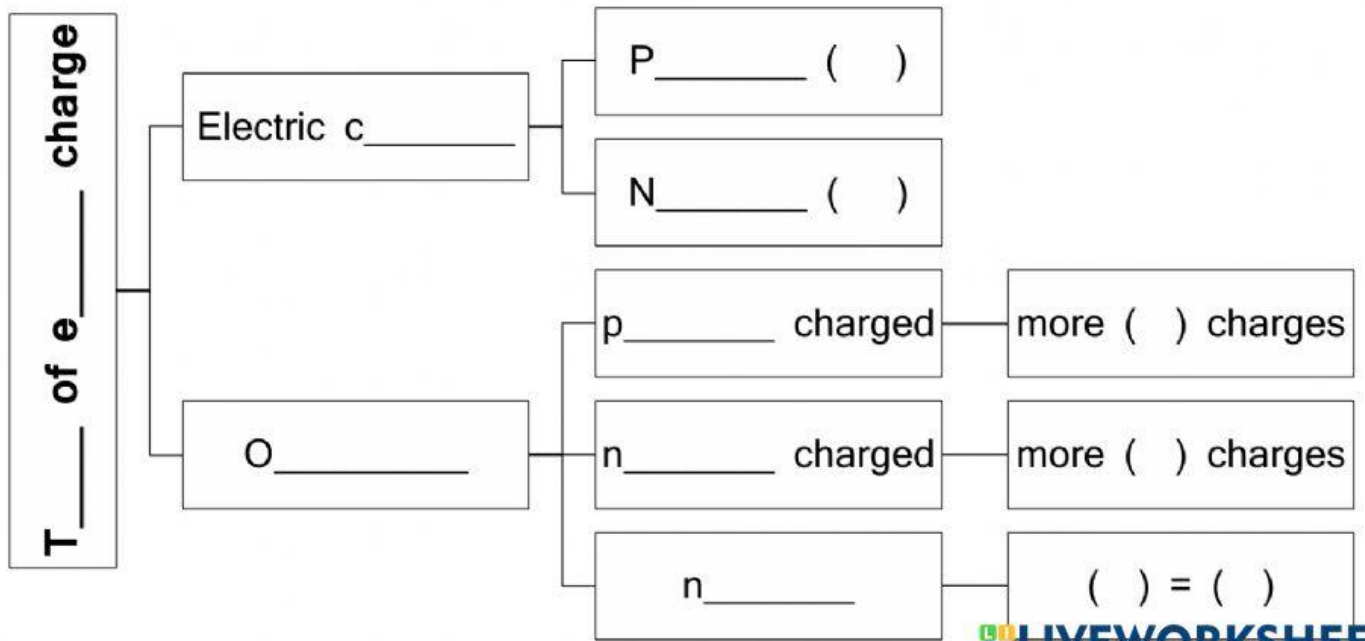


Which of these machines need electricity to work?





Complete the concept map about electric charge:

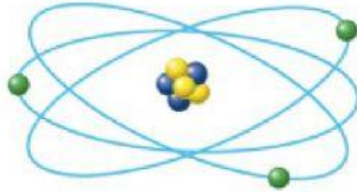




What's an atom made up of? Complete the sentences:



- **All matter is made up of microscopic...**
 - a) electrons.
 - b) atoms.
- **The electrons revolve around the...**
 - a) protons.
 - b) nucleus.
- **An atom is made up of electrons and...**
 - a) nucleus.
 - b) positive charge.
- **The electric charge of protons is...**
 - a) negative.
 - b) positive.
- **The nucleus of an atom has protons and...**
 - a) neutrons.
 - b) electrons.
- **Electricity happens when an electron moves from one...**
 - a) proton to another.
 - b) atom to another.





Complete the information about forces between objects and match the pictures with the type of force represented:

**Forces between
charged objects**

objects with opposite charges

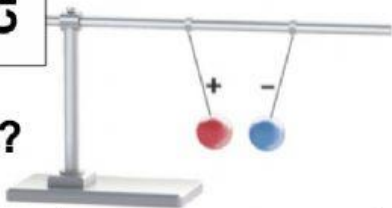
A _____ each
other

objects with like charges

R _____ each
other

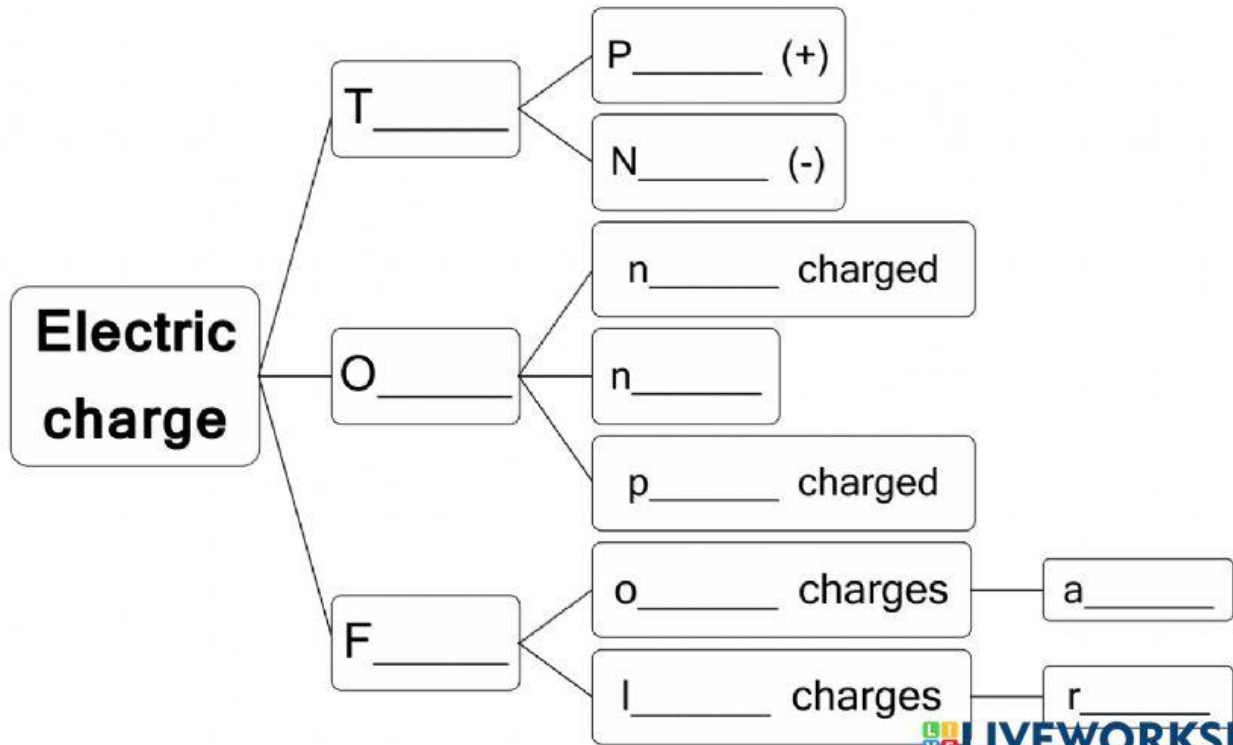
Attraction?

Repulsion?





Complete the concept map about electric charge:





How does electric current flow through wires? Order the steps from 1 to 5.



- This movement causes a flow of negative electrons between the atoms. ____
- The negative charge of electrons creates a positive electric current in the opposite direction. ____
- First, a negatively charged electron jumps to the next atom. ____
- The electrons flow in the same direction. ____
- The movement of this electron pushes another electron that also jumps to the next atom. ____

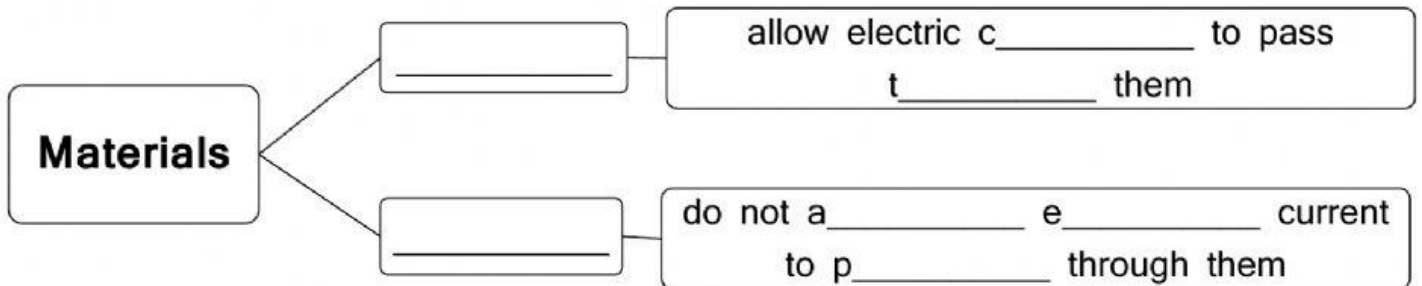




Complete the text and the concept map about types of materials:



Some types of matter have _____ that move easily from one atom to another. They are called _____.
_____ are electrical conductors. For this reason, wires are made of _____.





Group these items into conductors and insulators:

rubber gloves iron nail copper pipe drinking glass
knife wooden wedge silver ring sheet of paper plastic ruler

Conductors	Insulators



Complete the concept map and label the picture:



Electric c_____

components

cables

