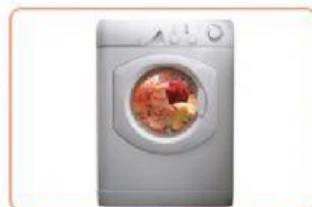


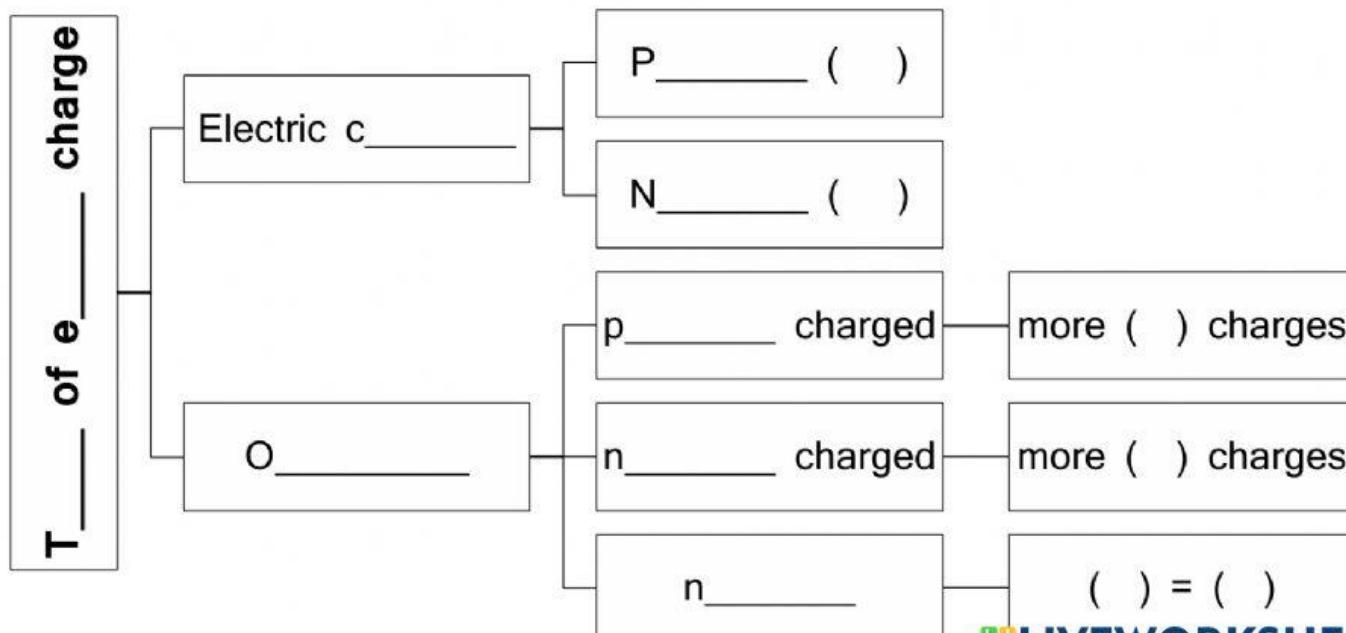


## Which of these machines need electricity to work?





## Complete the concept map about electric charge:

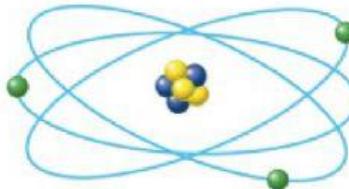




## What's an atom made up of? Complete the sentences:



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

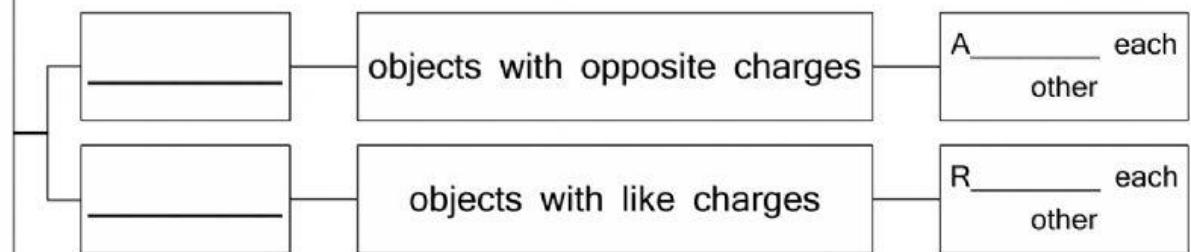




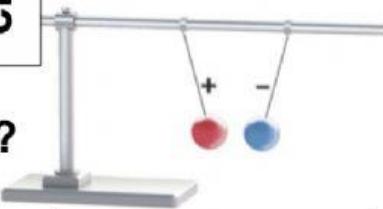
Complete the information about forces between objects and match the pictures with the type of force represented:



### Forces between charged objects



Attraction?



Repulsion?

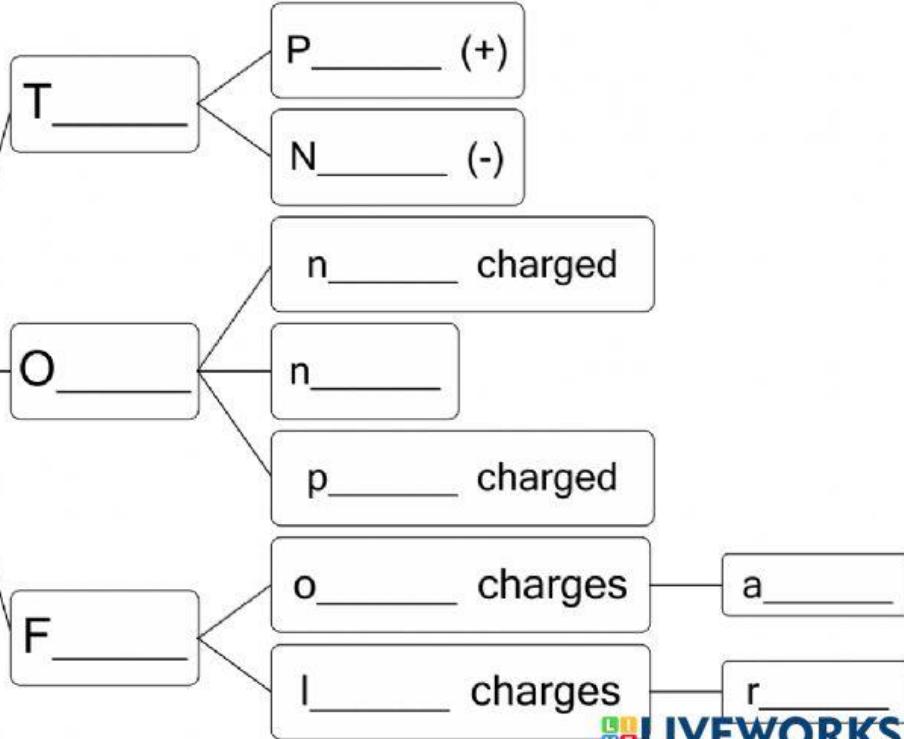




## Complete the concept map about electric charge:



### 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. \_\_\_\_\_



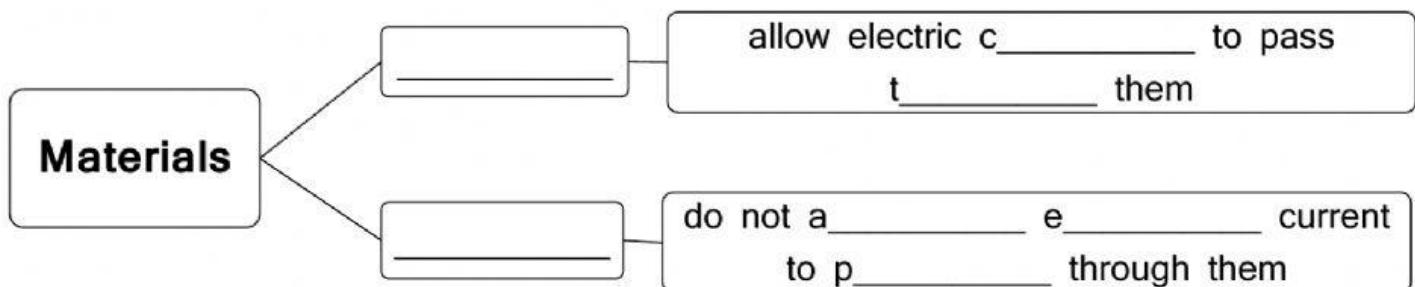


## Complete the text and the concept map about types of materials:



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

