

What is the difference between an open and closed electric circuit?

What is the difference between a parallel and series circuit?

What is the difference between a permanent magnet and an electromagnet?

What is the difference between an open and closed electric circuit?

Closed circuits allow electrical energy to move, open circuits don't.

What is the difference between a parallel and series circuit?

In a series circuit, there is only one path for the electricity. In a parallel circuit, there is more than one path for the electricity.

What is the difference between a permanent magnet and an electromagnet?

You can turn an electromagnet on/off. A permanent magnet is always on. Electromagnets are used to generate electricity and power (motors and generators).

Benjamin Franklin discovered the form of energy produced by lightning. Experiments with lightning killed many people before he discovered that lightning is a form of --

- A. Gravity
- B. Water
- C. Magnetism
- D. Electricity

Benjamin Franklin discovered the form of energy produced by lightning. Experiments with lightning killed many people before he discovered that lightning is a form of --

- A. Gravity
- B. Water
- C. Magnetism
- D. Electricity

27 Which of these can most easily produce magnetic fields?

- A Sunlight
- B Wind
- C Electricity
- D Flowing water

27 Which of these can most easily produce magnetic fields?

A Sunlight

B Wind

C Electricity

D Flowing water

Electric lights will not come on unless their electrical circuit is a --

- A. parallel circuit
- B. series circuit
- C. closed circuit
- D. short circuit

Electric lights will not come on unless their electrical circuit is a --

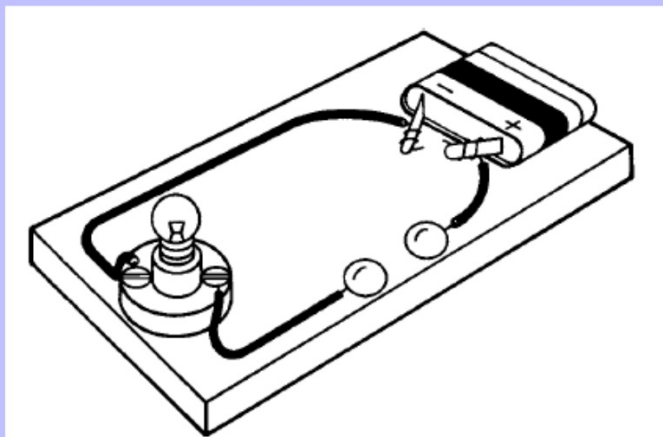
- A. parallel circuit
- B. series circuit
- C. closed circuit
- D. short circuit

A bar magnet is placed on a table, and a sheet of blank paper is placed over the magnet. What could be sprinkled on the paper to show the magnetic field of the bar magnet?

- A. Salt
- B. Iron fillings
- C. Sand
- D. Soil

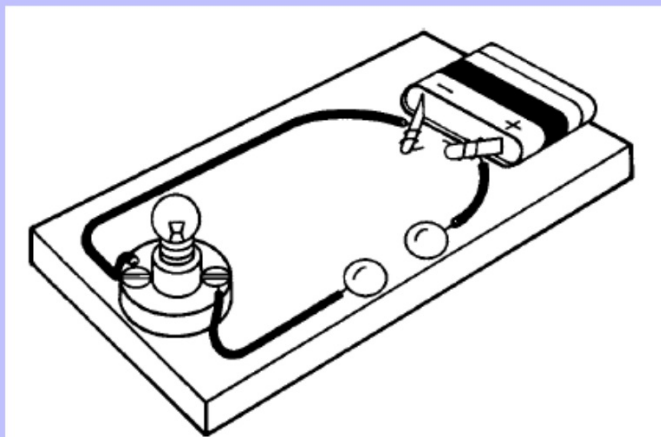
A bar magnet is placed on a table, and a sheet of blank paper is placed over the magnet. What could be sprinkled on the paper to show the magnetic field of the bar magnet?

- A. Salt
- B. Iron fillings
- C. Sand
- D. Soil



This instrument can be used to see if materials conduct electricity. Which of these groups contains items that could *all* conduct electricity to complete the circuit?

- A Rubber ball, plastic comb, nail
- B Paper clip, penny, screw
- C Cork, dollar bill, tweezers
- D Pencil, eraser, spoon

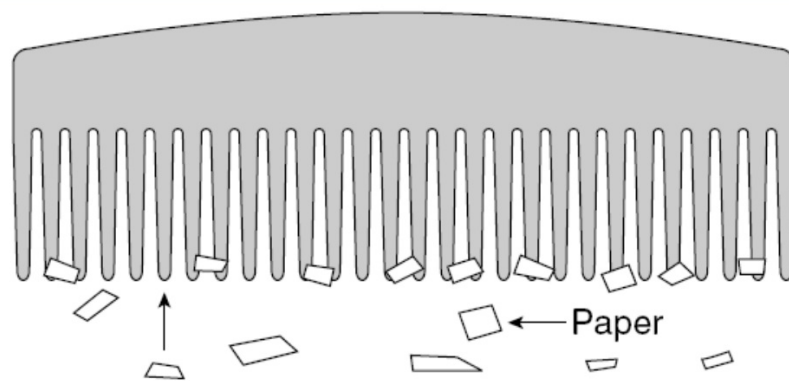


This instrument can be used to see if materials conduct electricity. Which of these groups contains items that could *all* conduct electricity to complete the circuit?

- A Rubber ball, plastic comb, nail
- B Paper clip, penny, screw
- C Cork, dollar bill, tweezers
- D Pencil, eraser, spoon

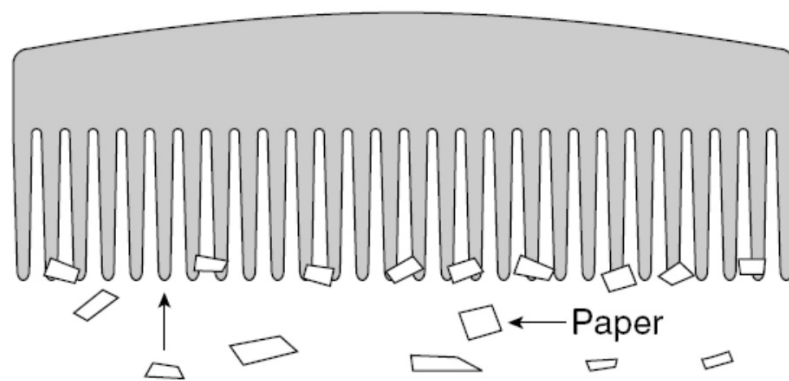
What material would be safest to use as an insulator to cover electrical wires?

- A Aluminum
- B Tin
- C Rubber
- D Water



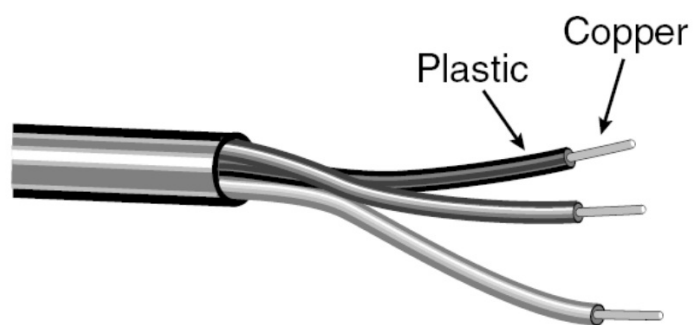
The picture shows a comb that was used on a cold, dry day. Which of these cause the bits of paper to be attracted to the comb?

- A. Magnetic forces
- B. Chemical reactions
- C. Static electricity
- D. Heat differences



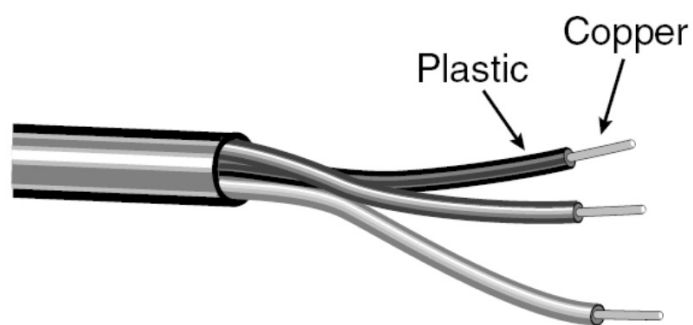
The picture shows a comb that was used on a cold, dry day. Which of these cause the bits of paper to be attracted to the comb?

- A. Magnetic forces
- B. Chemical reactions
- C. Static electricity
- D. Heat differences



Many electrical wires are wrapped with a plastic coating because plastic is —

- A less expensive than steel
- B more dense than copper
- C able to keep its shape
- D a good insulator



Many electrical wires are wrapped with a plastic coating because plastic is —

- A less expensive than steel
- B more dense than copper
- C able to keep its shape
- D a good insulator**

The magnetic fields of any magnet are *greatest* —

- A around the middle
- B around the poles
- C around only the south pole
- D around only the north pole

The magnetic fields of any magnet are *greatest* —

- A around the middle
- B around the poles
- C around only the south pole
- D around only the north pole