1 A science class tested three properties of different materials. The results are shown in the table below.

Material	Conducts electricity?	Conducts heat?	Is flexible?
Wood	No	No	No
Plastic	No	No	Yes
Copper	Yes	Yes	Yes
Steel	Yes	Yes	No

Based on the table, which material would be best to use to insulate electrical wires?

A Wood

B Plastic

C Copper

D Steel

Insulators stop heat or electricity.
Think of "oh I don't want to shock/burn myself"

IMPORTANT

2 A teacher wears protective gloves to lift a metal pan filled with boiling water from a hot plate. Why are the protective gloves necessary?

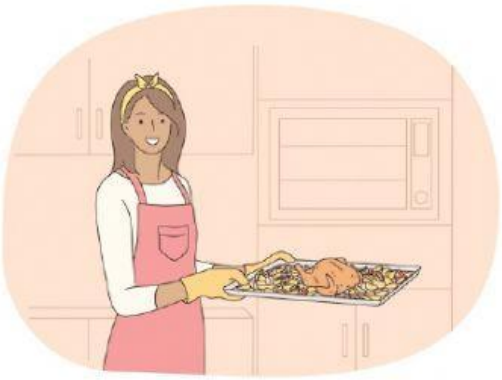
A The metal pan creates thermal energy.

B The metal pan insulates thermal energy.

C The metal pan conducts thermal energy.

D The metal pan reduces thermal energy.

C_____ allow heat and electricity to pass.
Think of "if I touch it, I will burn/shock myself"



3 Objects that blow into a swimming pool or that are dropped into the pool by swimmers need to be removed. These objects include foam cups, keys, and coins. Which of the following explains a useful method for removing some of these objects?

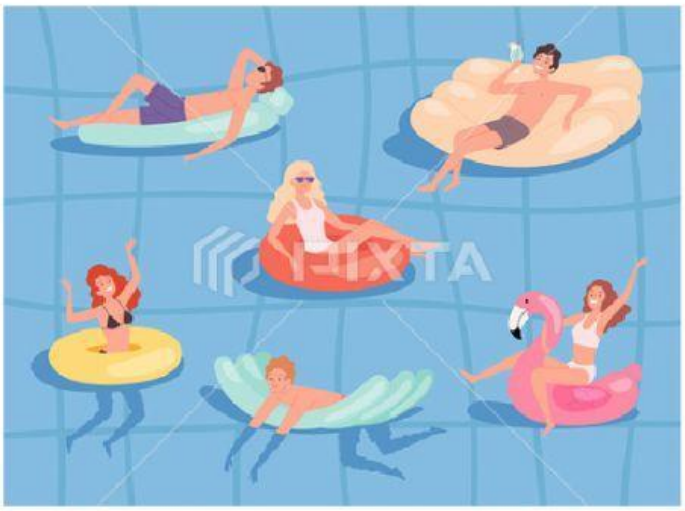
A The keys and coins are less dense than water, so they can be easily picked up off the bottom of the pool by divers.

B The foam cups have the same density as water, so they can be crumbled up for removal by the pool filter.

C The foam cups are less dense than water, so they can be removed from the surface with a pool cleaning net.

D The keys and coins have the same density as water, so they can be washed away when the pool is drained.

If it is more dense the object will sink. If it is less dense the object will float.



4 Which of these is the best conductor of electricity?

F Glass rod

G Cotton string

H Plastic tubing

J Copper penny

A conductor allows heat and electricity to flow.

5 A teacher mixes a white powder into a beaker of water. The powder cannot be seen in the water. The teacher then heats the mixture until the water evaporates and the powder can be seen again. Which property of the powder is the teacher demonstrating?

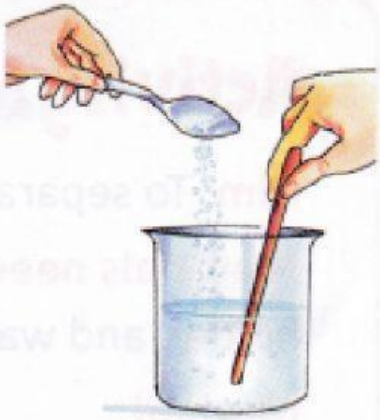
F Solubility

G Density

H Conductivity

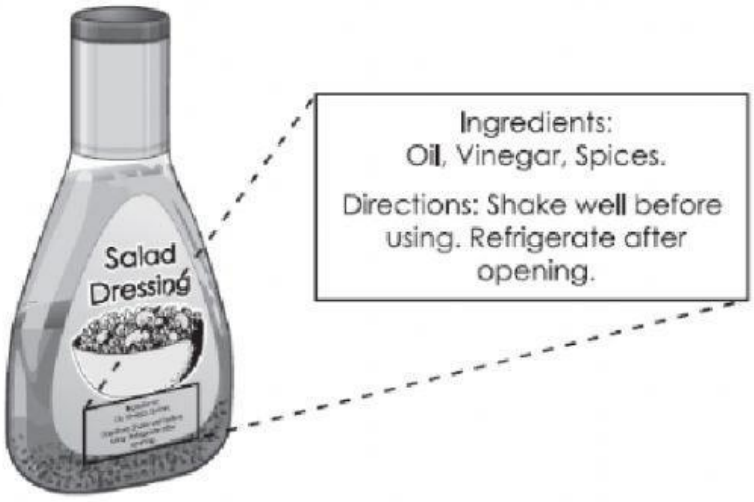
J Mass

The object disappeared!
What kinda magic?!



Salt dissolves in water.

6 A student reads the label on the bottle of salad dressing shown below.



Why would the student shake the salad dressing well before using it?

A Vinegar and oil have different densities.

B Vinegar and oil easily form a solution.

C Vinegar and oil both contain water.

D Vinegar and oil are both liquids.

Oil doesn't like to mix with liquids.