JR ENGINEERS

FLOATING PAPERCLIP

Does a paperclip float or sink? Can it do both? Let's find out!

SUPPLIES

Paperclips
Scissors
Paper towel
Bowl of water
Dish soap

INSTRUCTIONS

STEP 1: Fill your bowl to nearly the top with water.

STEP 2: Now drop your paperclip into the water. Does it sink or float?

STEP 3: Try gently placing the paperclip flat on top of the water. Does it float?

STEP 4: Now cut a square of paper towel and place it into the water first, then place your paperclip gently on top of the paper towel. What happens?

STEP 5: Once you have some floating paperclips, add a single drop of dish soap to the water. What happens now?

SURFACE TENSION

Surface tension exists in water because water molecules stick to each other. This tension is so strong that when you gently lay a paperclip onto the water, it sits on top of the water instead of sinking into it.

When soap is added to the water, it breaks the surface tension in that area. That makes the water molecules pull away and the paperclip drops to the bottom.