



TESTING WATER SURFACE TENSION

with a Paperclip Float Experiment

Name: _____

Date: _____

Experimenter: _____

Location: _____

QUESTION

How does water's surface tension allow a paperclip to float?

HYPOTHESIS

If _____,
then _____
because _____.

MATERIALS

- Paperclip (regular size)
- Clear glass or bowl
- Water
- Optional: Dish soap
- Optional: Dropper or spoon
- Towel or paper towel



THE SCIENCE BEHIND IT

Water molecules are attracted to each other. At the surface, these attractions create a "skin" that acts like a stretchy film. This is called surface tension. It can support small, light objects—like a paperclip—as long as the surface isn't disturbed.

PROCEDURE

1. Fill the glass or bowl to the very top with water. The water should form a slight dome above the rim.
2. Gently place a paperclip on the surface of the water.
3. Observe what happens. Does it float? How long does it stay up?
4. Add one small drop of dish soap to the center of the water.
5. Observe what happens to the paperclip.
6. (Optional) Try again using a clean bowl of water and add 2 or 3 drops of dish soap. Observe the difference.

RESULTS

Test Condition	Did the Paperclip Float?	How Long Did It Float?	What Happened?
Plain Water	☐ Yes ☐ No	_____	
1 Drop of Dish Soap	☐ Yes ☐ No	_____	
2-3 Drops of Dish Soap	☐ Yes ☐ No	_____	

REFLECTION

1. Why do you think the paperclip floated on the water at first? _____
2. What caused the paperclip to sink after adding dish soap? _____
3. How does this experiment show the effect of surface tension? _____
4. Where do you think surface tension is useful in nature or in everyday life? _____

★ **SAFETY TIP:** Always ask an adult for help when needed and clean up spills right away.