SCIENCE EXPERIMENT

Observing how salinity affects the density of water

Name: _____

Date: _____

Lab Partner (if any): _____

QUESTION

How does increasing the salinity (salt concentration) of water affect its density?

PREDICTION

If the salinity of water increases,
then the density of the water will _____
because _____
_____

MATERIALS

- 5 clear cups or plastic containers
- Water
- Table salt (sodium chloride)
- Measuring spoons
- Measuring cup
- Stirring spoon
- Food coloring (optional)
- Small object for floating test (e.g., grape, cherry tomato, or small plastic piece)

PROCEDURE

1. Label five cups: 0% (Fresh), 1%, 2%, 3%, and 4%.
2. Add 1 cup (240 mL) of water to each cup.
3. Add the following amount of salt to each cup:
   - 0%: 0 teaspoons (fresh water)
   - 1%: 1 level teaspoon
   - 2%: 2 level teaspoons
   - 3%: 3 level teaspoons
   - 4%: 4 level teaspoons
4. Stir each cup until the salt is fully dissolved.
5. (Optional) Add one drop of food coloring to each cup.
6. Gently place the small object into each cup.
7. Observe whether the object sinks, floats, or hovers.
8. Record your observations in the data table below.
9. Clean up your materials and area.

SAFETY

- Do not taste the salt water.
- Keep materials away from mouths and eyes.
- Clean up spills right away.
- Wash hands after the experiment.

DATA & OBSERVATIONS

Cup Label	Salt Added (teaspoons)	Salt Concentration (%)	Does the Object Sink, Float, or Hover?	Observations (Describe what you see)
0% (Fresh)				
1%				
2%				
3%				
4%				

CONCLUSION

1. What did you observe about the object as salinity increased? _____
   _____
2. What can you conclude about how salinity affects the density of water? _____
   _____