



SCIENCE EXPERIMENT

Observing the effect of salt concentration
on brine shrimp hatching



Name: _____

Date: _____

Scientist: _____



QUESTION

How does salt concentration affect the hatching of brine shrimp eggs?



HYPOTHESIS

If the salt concentration changes,
then the number of brine shrimp that hatch
will _____
because _____.



MATERIALS

- Brine shrimp eggs
- Non-iodized salt
- 5 clear cups or small containers
- Measuring spoons
- Measuring cup
- Stirring spoon
- Labels or tape and marker
- Timer or clock
- Light source (lamp or bright window)
- (Optional) Pipette or dropper



PROCEDURE

1. Set up five cups and label them with the salt concentrations below: 0 g/L, 10 g/L, 20 g/L, 30 g/L, 40 g/L.
2. Prepare the solutions:
 - Add the amount of salt (in grams) shown in the table below to each cup.
 - Add enough dechlorinated water (or bottled water) to each cup to make exactly 1 liter of solution.
 - Stir until the salt is completely dissolved.
3. Add the same number of brine shrimp eggs to each cup. (Use 1 level measuring spoon, about 1/8 teaspoon, or about 50–60 eggs.)
4. Place the cups under a light source. Keep the temperature as constant as possible.
5. Do not disturb the cups.
6. After 24 hours, count and record the number of shrimp that have hatched (nauplii) in each cup.
7. (Optional) Continue observing for up to 48 hours and record additional counts.



DATA TABLE – Record your results after 24 hours

Salt Concentration (g/L)	Amount of Salt (grams)	Number of Eggs Added	Number of Shrimp Hatched (Nauplii)	Notes / Observations
0	0 g			
10	10 g			
20	20 g			
30	30 g			
40	40 g			



ANALYSIS QUESTIONS

1. Which salt concentration had the most shrimp hatch? _____
2. Which salt concentration had the least shrimp hatch? _____
3. What pattern do you notice as salt concentration increases? _____
4. What do your results suggest about the effect of salt concentration on brine shrimp hatching? _____
5. How could you improve this experiment if you did it again? _____

BRINE SHRIMP (NAUPLI)



TIP

Keep temperature, light, amount of eggs, and time the same for all cups for a fair test!