SALT WATER EGG FLOAT LAB

NAME

CLASS / DATE

01 QUESTION

How does the amount of salt dissolved in water change whether an egg floats or sinks?

02 PREDICT BEFORE YOU MEASURE

THE TESTED SALT AMOUNT WHERE THE EGG BEGINS TO FLOAT MAY BE…

○ between 0 and 3 tbsp ○ between 3 and 6 tbsp ○ not clear from these samples yet

The test brackets a threshold between sampled amounts; it may not identify one exact amount.

03 VARIABLES

I CHANGE (INDEPENDENT)

I MEASURE (DEPENDENT)

I KEEP THE SAME (CONTROLLED) · CHANGED: SALT AMOUNT PER 300 ML WATER. MEASURED: SINK/FLOAT AND HEIGHT ABOVE SURFACE IF FLOATING. KEEP CUP, WATER VOLUME AND EGG MATCHED.

04 MATERIALS

- ☐ Intact raw egg and spoon
- ☐ Three cups with 300 mL water each
- ☐ 0, 3 and 6 tbsp salt
- ☐ Labels, tray and towel
- ☐ Stirring spoon

05 PROCEDURE

SAFETY Raw eggs can carry Salmonella. Do not eat or taste any sample; wash hands, cups, and the work surface after handling, and keep the egg away from food-preparation areas. Use stable cups on a tray and wipe spilled water or salt solution promptly.

1 **PREPARE EQUAL CUPS** Measure 300 mL water into each of three labeled cups. Keep them on a stable tray. ☐

2 **ADD AND DISSOLVE** Add 0, 3 or 6 tablespoons of salt as labeled. Stir the salted samples until all salt dissolves. ☐

3 **TEST GENTLY** Lower the same intact egg with a spoon into each cup, rinsing between tests. Record sink or float. ☐

4 **MEASURE IF FLOATING** For a floating egg only, measure how far it sits above the water surface in millimeters. ☐

5 **BRACKET THE CHANGE** Use the highest tested amount where it sank and the lowest where it floated to state the interval. ☐

DATA AND EXPLANATION

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06 RECORD YOUR OBSERVATIONS

SALT AMOUNT PER 300 ML	FLOATS OR SINKS?	HEIGHT ABOVE SURFACE (MM)
0 tbsp		
3 tbsp		
6 tbsp		

If sink/float changes between samples, report the interval between those tested salt amounts, not an exact untested threshold.

07 SHOW THE THRESHOLD INTERVAL

Mark 0, 3 and 6 tbsp on a line. Circle the tested amounts where the egg sank and floated; shade the interval between the highest sink and lowest float.

08 EXPLAIN IT WITH EVIDENCE

CLAIM

EVIDENCE

REASONING

Reasoning must use: salt amount · 300 mL · dissolved · density · threshold interval

09 THINK FURTHER

Which intermediate salt amount would you test next to narrow the interval, using the same water volume and egg-handling method?