

Salt Water Density Experiment



Fish

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School Age
4+ years

This super easy science experiment will help children understand the term “density” and why it’s so easy to float in the ocean compared to the river or lake!

Learning Outcomes

Domain:

Cognitive

Indicator:

Using conventional units of measurement

Skills:

Measuring



Materials

- Grapes
- Water
- 4 clear glasses
- ½ cup table salt
- ½ cup sugar
- Sparkling water
- Sticky notes or tape
- Pen/marker



Instructions

Step 1: Pour the sugar into one glass. Fill almost to the top with water and stir.

Step 2: Pour the salt into one glass. Fill almost to the top with water and stir.

Step 3: Fill one glass with sparkling water.

Step 4: Fill the remaining glass with plain water as your “controlled variable” liquid.

Step 5: Label each glass with sticky notes or tape.

Step 6: Place a grape in each glass to see what happens! How does each glass compare to the “controlled variable”?



Age Adjustments

For older preschoolers: Introduce scientific terms like “controlled variable”, “mass”, “volume” etc. Encourage them to use these in other experiments!

For younger toddlers: Younger kiddos may not be interested in the “why” behind the reason for the floating “fish” that’s ok! Having them visually see the difference between the liquids can be just as exciting visually!



Playful Questions

- Does the salt in the ocean help the fish float?
- If we add more grapes to each glass will they also float/sink?
- Have you ever floated in an ocean or pool? Was it easy?
- What happens if we mix all the substances together?
- Will the grapes float or sink?