

SALTWATER STRATIFICATION



SUPERNOVA
DALHOUSIE UNIVERSITY | HALIFAX, NOVA SCOTIA

CREATE A SALTWATER RAINBOW!

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Food colouring

1 tall glass or plastic container

4 cups granulated salt

6 cups/glasses

1 Spoon

1 Straw

MATERIALS

30 MINS

PROCEDURE

Step 1

Add salt to the 6 cups as follows:

First cup with no salt, second with 3 Tbsp, then 6 Tbsp, 12 Tbsp, 24 Tbsp, and the last one, we will completely saturate (amount to be adjusted when you add water).

Step 2

Fill the 6 cups with warm water and mix until all the salt is dissolved. Mix from the least saturated (with no salt) to the most saturated (most salt) to avoid cross contamination.

Step 3

Add one drop of food colouring to cup each to follow the colours of a rainbow (red, orange, yellow, green, blue, and purple).

Step 4

Using a straw take up liquid from each cup (place in solution and cover open end with finger) and transfer it into your tall glass container. Start from least amount of salt to most.

WHAT HAPPENED WHEN YOU COMBINED YOUR DIFFERENT SOLUTIONS?

PURPOSE & SCIENCE OUTCOMES

- The coloured solutions should layer on top of each other due to the differing densities. The result should be a rainbow column of water.
- Dense water sinks below less dense water. This is the principle that drives the deep ocean currents that circulate around the world.

ANY QUESTIONS? REACH OUT @SUPERNOVAATDAL