



BANG!

AQUAMAN: Ocean in a Bottle!



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Materials:

- 1L pop bottles
- Water
- Blue food colouring
- Cooking oil
- Funnel
- Glitter (optional)
- Sea shells (optional)

Post a picture of yourself with your ocean in a bottle on Facebook and tag Worlds UNBound to be entered into a draw for a FREE week of camp. Let us know how your experiment turned out!

This week's theme is all about Superhero STEM! Our first key superhero is Aquaman! He is the king of the undersea nation of Atlantis, and he possesses superhuman strength and the ability to manipulate the tides, communicate with sea creatures and swim at supersonic speeds. Since he lives in the ocean, let's make an OCEAN IN A BOTTLE! The ocean is a very complex area of earth. In this experiment, we will be using liquids of different densities. Just like in the ocean, these density differences can cause internal waves. These internal waves act similarly to waves on shore, which when you think about it, is the same as the density differences between two media: seawater and air. By using oil and water as two differing density media in our experiment, we can actually see waves when they slosh our "ocean in a bottle" back and forth!



POW!



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Steps:

1. First, put glitter and shells in the bottom of your 1L bottle (you can also use a mason jar if you do not have a plastic bottle).
2. Using a funnel, add water to the bottle. Only add water until the bottle is about half-way full.
3. Add a few drops of blue and/or green food colouring. Get creative! Make the colour of the ocean exactly the way you want.
4. Fill the rest of the bottle with oil, but make sure to leave about 1-2 cm of air at the top (clear oil is better than others if you have it).
5. Screw the cap back onto the bottle. If you want, add hot glue to the cap after you have secured it to ensure no leaks are present!
6. Swish the bottle back and forth to watch the waves!
7. Have fun!

Thank you for participating.
We hope you enjoyed this activity!
Check out our next activity on
WEDNESDAY!