Understanding Ocean Currents

OBJECTIVE**:**

Understanding how ocean currents move in the water and how temperature influences them.

MATERIALS

- Cold water
- Ice
- Boiling water
- Red and Blue food coloring
- Large baking dish. Clear is best.
- Animal toys (optional)

EXPERIMENT:

1. Fill the clear baking dish 1/3 full with cold water and add a few drops of blue food coloring to make it light blue (It needs to be light or you won't see the currents)
2. Boil 4 cups of water and add red food coloring (this one you can make dark)
3. Pour some of the boiling water into the corner of the baking dish filled with cold water. The hot water will push through the cold water creating currents.
    - In the ocean these are fasting moving strips of water
    - Eventually the water will turn a purple color as the cold and hot water currents mix – this happens in the ocean too.

DISCUSSION:

1. What observations did the students make during the experiment?
2. What might this look like in the ocean? Can we see it as clearly?
3. How might animals use these currents? What are the dangers of the currents?
4. If we were to put a plastic bag in the ocean, would it stay in one place?
5. Are currents limited to only one ocean?