**Ocean Current Activity**

**Objective:**

This activity is designed to help participants understand the concept of ocean currents and their impact on climate and marine life.

**Materials Needed:**

- Large shallow container (like a plastic tub or aquarium)

- Water

- Blue food coloring or dye

- Ice cubes

- Warm water (heated but not boiling)

- Stirring stick or spoon

- Stopwatch or timer

- Chart paper and markers

**Preparation:**

1. Set Up the Container:

 - Fill the shallow container with water, leaving some space at the top to prevent spills.

2. Prepare the Dye:

 - Mix a few drops of blue food coloring in a small cup of warm water.

**Steps of the Activity:**

Step 1: Introduction to Ocean Currents

- Begin with a brief discussion about what ocean currents are and why they are important. Explain how they influence climate, weather patterns, and marine life.

Step 2: Simulating Ocean Currents

1. Add the Dye:

 - Slowly pour the blue dye into one end of the container to represent warm ocean water being added to the current.

2. Create Temperature Difference:

 - On the opposite end of the container, add ice cubes to simulate cold water currents.

3. Observe:

 - Allow the setup to sit for a few minutes. Observe the movement of the blue dye as it interacts with the cold water. Use the stirring stick to gently create a current and observe how the dye spreads.

Step 3: Record Observations

- Ask participants to note the movement of the dye and the temperature differences in the water. Have them draw diagrams on chart paper showing how the warm and cold water currents interact.

Step 4: Discuss Findings

Step 5: Alternative Method

* Use fresh water and salt water

**Safety Considerations:**

- Ensure that the water temperature is safe to handle and that participants do not consume any materials used in the activity.