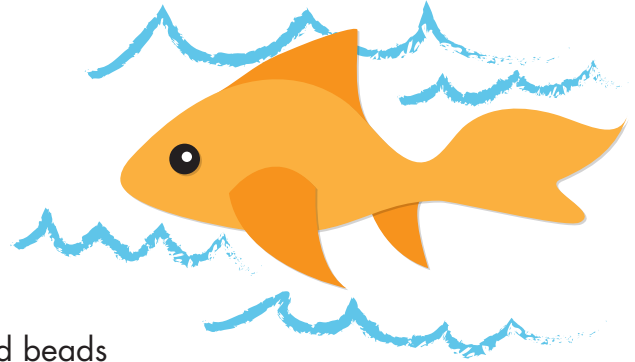# Celebrate World Oceans Day

Collect

- Clean 20 oz plastic bottle with lid
- Clear oil (such as baby oil or mineral oil)
- Water
- Blue food coloring
- Funnel
- Duct tape
- ½ cup of sand
- Small ocean items like seashells, rocks, or ocean themed beads

Create your ocean scene

1. Pour the sand into your bottle using a funnel.
2. Place your ocean items into the bottle. If you can't find any ocean items, try making a few of your own!
   a. Make seaweed by trimming a few strands off of fish tank decorations or cutting long, thin strips out of green or brown plastic grocery bags.
   b. Create a driftwood log by sanding the bark off a small tree branch.
   c. Cut fish, sharks and other sea creature shapes out of felt.

Mix up ocean water

3. Fill the bottle about halfway full with water.
4. Add a few drops of blue food coloring and gently rock the bottle to mix it up.
5. Use the funnel to add clear oil until the bottle is almost completely full.
6. Place the lid on the bottle, making sure it is closed tight. Secure the lid with duct tape.
   Hint: Add a little bit of hot glue to the lid to make the seal even more secure.

Make some waves

7. Simulate ocean waves by holding the bottle horizontally and gently rocking it back and forth.
8. Observe what happens to the water, oil, sand, and the added decorations

Why don't the liquids mix?

Water molecules like to stick together and are more attracted to each other than oil molecules. Even if you shake the liquids together, eventually they separate out again. When the two separate, the oil appears to 'float' on top because it is less dense than water.