

# Immiscible liquids

## Lesson Plan

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**Date:** May 5<sup>th</sup> 2009

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**Grade Level(s):** Multiple ages – KG – Grade 2

**Subject(s):**

- Science

**Duration:** 45 minutes

**Description:** Students will recognize why a duck does not get wet.

**Goals:** experiment with dipping paper in oil and water to recognize what makes the paper stay dry in water.

**Objective:**

Students will understand the role that oil plays in protecting from water.

**Materials:** container, water, oil, paper

**Procedure:**

1. Read 'The Story about Ping' by Marjorie Flack
2. Show the students a piece of paper. Ask them what they think will happen if dipped in a container of water.
3. Drop it in the water. Ask them what happened.
4. Give oiled paper to each student. Tell them to dip it in water.
5. Encourage them to dip a couple of times. Ask them what happened.

**Assessment:** After all have dipped their oiled paper

1. Ask why paper did not get wet.
2. Talk about the meaning of immiscible.
3. Show the feather and talk about the oil protecting it.

**Follow Up:**

- Follow this lesson up with using everyday materials and predict and test if they float. Ask why the boy is swimming with the barrel attached to his back.
- Discuss buoyancy, explain that both air and wood are lighter and less dense than water. The air inside the barrel helps the boy stay afloat.
- Discuss weight and density of material.
- Make a submarine of a two litre soda bottle and attach a pipe to it. The bottle rises out of water when children blow air into the bottle. Make paper boats and float them on water.
- Talk about animal kingdom, ducks their health, habits and habitat.

**Internet Resources:**

- ["Bill Nye The Science Guy" Episode Guides Episode #05: BUOYANCY](http://www.billnye.com)  
http://www.billnye.com  
To locate the information, click on the link for Episode Guides, then Physical Science, then Physics, then Buoyancy.
- [Maverick Boats: Paper Boats](http://www.highhopes.com/maverickboats.html) http://www.highhopes.com/maverickboats.html