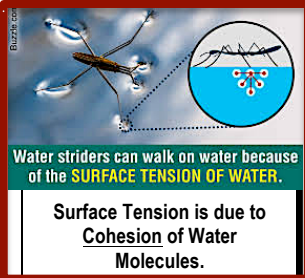


# INQUIRY 2

## SCIENCE 8

September 2018  
Mrs. Plyter [plyter.com/science](http://plyter.com/science)

Name	Period
Thursday <b>13</b>	Friday <b>14</b>
 <p style="font-size: small;">Water striders can walk on water because of the <b>SURFACE TENSION OF WATER</b>. Surface Tension is due to <b>Cohesion of Water Molecules</b>.</p>	
<p><b>BOAT Races Points:</b></p> <p><b>1. Ready to Race!</b> _Boat + _Drawings + _Data in Chart.</p> <p><b>2. Boats judged on:</b> _a) Criteria in Problem _ _b) Floats with Penny _ _c) Straight Travel ____ _d) Speed: Win timed race! ____ _e) Distance Traveled: Win distance race. ____ _f) Class Chart Entries.</p>	<p><b>Points:</b> <b>Objective(s)</b></p> <p><b>Materials Check</b></p> <p><b>Inquiry Pretest</b></p> <p><b>Boat Points</b></p> <p><b>Online Scientific Method: Tutorial</b></p> <p><b>Online Scientific Method</b> Inquiry and Engineering → <b>Do Tutorial in order. A Screen Check is Required.</b></p> <p><b>For Cricket, a Screen Check or Screen Shot of Trophy Required</b></p> <p><b>2) Extra: Cricket</b> _</p> <p><b>Calendars DUE</b> <b>The Last Day of the Week.</b> In your Class Folder!</p>
<p><b>Even Day?</b> - Work together at table. - Agree before you submit.</p> <p><b>Odd Day?</b> - Work by yourself at a table by yourself. - One use your Lab Table.</p>	
<p>Mon _____</p> <p>Tue _____</p> <p>Wed _____</p> <p>Thur _____</p> <p>Fri _____</p> <p><b>Total</b> _____</p>	

**INQUIRY Pretest:**

**Problem:**  
Compare the cohesion of water molecules to the cohesion of molecules of other liquids.

\_\_1. Use the **Inquiry Scoring Guide** in *Google Classroom*.

\_\_2. Use the **Inquiry Notes** →

\_\_3. Complete **EACH** requirement for a **4**.

**Oregon Meets = 4 points. 20+ \_\_\_\_\_**

**Inquiry Notes:**  
Use these **NOTES**:

\_\_Some of these notes are appropriate for **Background Information**.

\_\_1. Inquiry must include **measurable** data. That means you form a **question that can be answered using numbers**.

\_\_2. **Definitions:**

\_\_ **Cohesion:** the sticking together of particles of the same substance.

\_\_ **Adhesion:** the sticking together of particles of different substances.

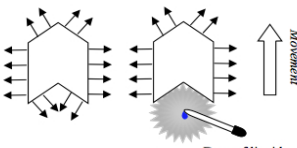
\_\_3. An acceptable **measure** of **cohesion** of liquids is the number of drops that will stay on a **clean penny**.

**Engineering Design-Inquiry: Investigate!**

**Problem:**  
Design, build & test a 5-centimeter long soap powered barge (boat) to carry one of your pennies in the "soap boat" races.

**Design, Measure, Draw, Test, Record, Organize and Label!**

Required for Racing:  
\_\_1 Design Drawings \_\_\_\_  
\_\_2. Tools → Stopwatch2 ↓  
\_\_3. Record Data in Personal Chart. \_\_\_\_



A drop of soap removes the water's adhesive force pulling on the cutout, resulting in forward motion.

Drop of liquid soap.

Direction of Movement ↑


**Central Science Home Page:** [www.plyter.com/science](http://www.plyter.com/science)

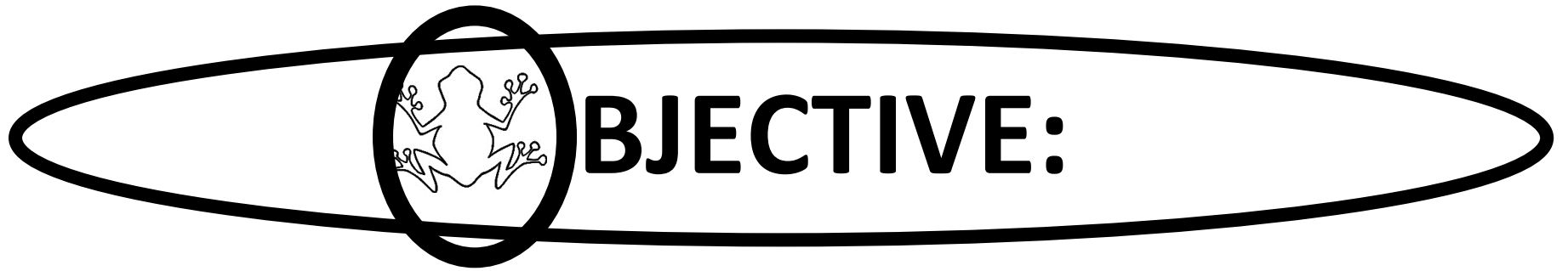
Google Page → Google Classroom → Sign in. Class Code: wpbz4cp

Practice Tests → My Gradebook-[QuizLab](#) → Classword = plyter19 → Password = Student #

Tools → Stopwatch2 or Stopwatch. You may put/use the stopwatch on the Large Screen TV's.

Discovery Science User Name = 23LastFirstInitial Password = Student #





Write the Objective(s):

Inquiry Pretest: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

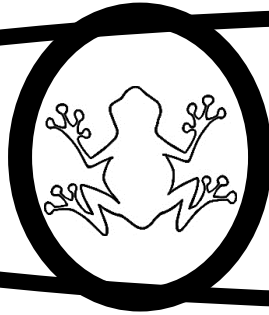
\_\_\_\_\_

The BOAT: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# **OBJECTIVE:**

## **Inquiry Pretest:**

Carry out a scientific investigation according to the “*Inquiry Scoring Guide*” template.

See *Inquiry Scoring Guide* on Google Classroom  
Oregon 2014 Science Standards: Next Generation Science  
Standards MS-PS2 (Page 56)

## **The BOAT**

Evaluate competing design solutions (the boats), with organized individual and class data, to determine how designs meet the criteria of the problem.

Next Generation Science Standards  
MS-PS2 (Page 56)