**Teaching Science as Inquiry (TSI) Lesson Plan**

**Module 1: Physical Aquatic Science**

Name: Joni L. Ortiz

Activity: Density Bags

Why did you choose to do this activity?

I choose this lesson because:

* All the materials were provided.
* It meets the common core curriculum standards

What are your classroom learning goals?

My learning classroom goals for my students are:

1. To gain a better understanding of the ocean
2. To introduce buoyancy, temperature and salinity

How does this activity tie into your classroom learning goals?

The density in a bag parts A,B and C activity was a perfect activity/demonstration to introduce buoyancy, temperature and salinity.

What date do you plan to start this activity?

10.15.2012 – 10-19.2012 it took the entire week to complete.

*If applicable:* HIDOE standards this lesson will address

SC.8.8.6 Explain the relationship between density and convection currents in the ocean

SC.8.8.7 Describe the physical characteristics of the ocean

**Ocean**

1. Describe how you will connect this activity to the ocean. Since we are surrounded by an ocean, It’s imperative that our students be literate and learn the essential principals of Ocean Science. That being said, we “talk story” about the ocean on a daily basis regarding current events that happen, its easy to connect these activities to our ocean.
2. Select the Ocean Literacy Principle(s) that you anticipate this activity will address. (check all that apply)

x□ 1. The Earth has one big ocean with many features.

□ 2. The ocean and life in the ocean shape the features of the Earth.

□ 3. The ocean is a major influence on weather and climate.

□ 4. The ocean makes earth habitable

□ 5. The ocean supports a great diversity of life and ecosystems.

□ 6. The ocean and humans are inextricably interconnected

□ 7. The ocean is largely unexplored

**Preparation**

1. How will you prepare your students for this activity? (For example, review of prior knowledge.) We did the practices of scientists lesson first .This prior activity set the students up to image that they were going to be the actual scientists conducting an experiment. However, I ended up being the lead scientists on this activity due to classroom management issues.
2. Explain any instructional struggles that you foresee and how you will address these issues. (For example, student misconceptions, classroom discussion, aspects most difficult for students to grasp, etc.) We had lots of classroom management issues. Most of the students misused/broke the materials. I’m not sure if this was accidental or on purpose but they will get another chance.
3. Select the TSI Mode(s) of Inquiry that you will focus on for this activity. (check all that apply)

X□ Curiosity

X□ Description

□ Authoritative knowledge

X□ Experimentation

□ Product evaluation

□ Technology

□ Replication

x□ Induction

□ Deduction

□ Transitive Knowledge

**Questioning and Assessment Strategies**

1. What *questioning strategies* will you use to help your students meet your learning goals? I will implement AVID: Advancement Via Individual Determination

 [L. avidus] eager for knowledge strategies and methodologies.

1. What *assessment strategies* will you use to help your students meet your learning goals and monitor their progress?
2. Pre and Post test
3. Quiz
4. Activity Questions

Please provide any additional comments that will help you prepare to teach this activity or help the TSI facilitators understand how you plan to teach this activity.