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

**Module 1: Physical Aquatic Science**

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Activity: Kinesthic Moon Model

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 introduce tides and tidal movement
2. To teach the phases of the moon.

How does this activity tie into your classroom learning goals?

To become Ocean Literate a student must understand the essential principals and fundamentals concepts about the functioning of the ocean. Understanding the tides is important to understand the movement of the earth and the moon relative to the sun.

What date do you plan to start this activity?

This activity was started on 11.08.2012

*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 an ocean surrounds us, 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.

x□ 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.) I told my students we are going to be studying the ocean tides and phases of the moon. This information is vital in helping us understand about weather and climate and how the tides are important in understanding the movements of the earth and the moon relative to the sun.
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.) The most difficult concept for the students to understand was that they wanted to know exactly how the moon and the sun exerted enough energy to create a gravitational pull from a mathematical perspective.
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

x□ 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. 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.