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

**Module 1: Physical Aquatic Science**

**Name**: Nichole Montague

**Activity**: Practices of Scientists

**Why did you choose to do this activity?**

This activity was mandatory and with my time constraints due to a student teacher, I needed to complete this lesson prior to her solo time and our fall break.

**What are your classroom learning goals?**

Introducing/Re-visiting definition of science and vision of what scientists do – practices and how they do things – demeanors. Emphasizing the role of curiosity for scientists.

Scientific Inquiry – learning to create a testable hypothesis that can be answered through a controlled experiment and using appropriate tools, equipment, and techniques safely to collect, display and analyze data.

How does this activity tie into your classroom learning goals?

This activity defines/exemplifies the roles of science and scientists and sets the stage for future labs and the expectations I have of scientific behavior. It prepares my students for learning through inquiry and the scientific benchmarks we will be learning throughout the year.

What date do you plan to start this activity?

Thursday 9-20-12

*If applicable:* HIDOE standards this lesson will address

Scientific Inquiry – learning to create a testable hypothesis that can be answered through a controlled experiment and using appropriate tools, equipment, and techniques safely to collect, display and analyze data.

**Ocean**

1. Describe how you will connect this activity to the ocean:

I did not connect this activity to the ocean, however, it will prepare my students for future learning about the ocean and the demeanors I expect them to emulate as they learn and do science.

1. Select the Ocean Literacy Principle(s) that you anticipate this activity will address. (check all that apply)

□ 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.)

I opened with the “Mystery Boxes” in order to hook my kids with curiosity. Then we reviewed their understanding of the role of science.

1. 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.)

I foresee struggles with the Demeanors and Discipline part of the lesson. I have a hard time digesting it myself and am worried that it will be dull and meaningless.

1. Select the TSI Mode(s) of Inquiry that you will focus on for this activity. (check all that apply)

√ Curiosity

√ Description

□ Authoritative knowledge

□ Experimentation

□ Product evaluation

□ Technology

□ Replication

□ Induction

□ Deduction

□ Transitive Knowledge

**Questioning and Assessment Strategies**

1. What *questioning strategies* will you use to help your students meet your learning goals?
   * Probing Questions – prior knowledge/experience
   * Oral Questioning of Whole Group and Individuals
   * Partner questioning during scientist drawings
2. What *assessment strategies* will you use to help your students meet your learning goals and monitor their progress?

* Exit Card Strategy – three things they learned about Science or Scientists.

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.

I also have a powerpoint of real life types of Scientists I introduced to students following their drawings. We discussed things different types of Scientists do and how they were similar or different from their scientist drawings. I also showed a short Brainpop video called the Scientific Method at the end of some of my classes to review scientific experimenting – variables and controls.