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

**Module 1: Physical Aquatic Science**

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Activity: Practices of Scientists

Why did you choose to do this activity?

I am using another teacher’s homeroom for my TSI activities (since science is on a trimester schedule at my school) and this was our first meeting together. I felt that this activity provided an excellent introduction to our “lab meetings” together.

What are your classroom learning goals?

 Since this activity was done during homeroom time (not during my instructional time), I did not have curriculum-based learning goals for it. However, I did show students learning goals at the beginning of the activity. These learning goals were as follows:

 I will be able to:

* Define SCIENCE.
* Describe who a scientist is and what he or she does.

How does this activity tie into your classroom learning goals?

 The activity did not tie into the classroom learning goals.

What date do you plan to start this activity?

 September 19 – September 20

*If applicable:* HIDOE standards this lesson will address

 None

**Ocean**

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

The ocean was connected to this activity in the examples I used in the activity. For example, in showing that everyone can be a scientist, I showed an example of a student from last year who was doing an experiment on density using liquid layers.

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.)

Students will be coming into this activity “blind” for a purpose. After a

quick discussion about the definition of science (accomplished in part due to a reflection over what we have accomplished in science class thus far), the students will be asked to draw a scientist. This will be the lead-in to the rest of the discussion.

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 students having misconceptions about who/what scientists are. The entire lesson (in my mind) is devoted to derailing this misconception. I want students to leave with the understanding that anyone who asks and answers (using careful protocol) questions about the physical world is a scientist. Therefore, they ALL are scientists!

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?

Throughout the lesson, I would ask a question and allow students to generate the responses I put on the board through volunteered answers.

1. What *assessment strategies* will you use to help your students meet your learning goals and monitor their progress?

Students were directed to draw a picture of a scientist before the lesson. At the end of the lesson, I directed them to draw another picture of a scientist, this time incorporating what they had learned throughout the lesson.

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.