**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?

It was one of the required targeted activities and would deal with perceptions that could be changed. My students talk about being prejudiced a lot and about people misjudging them so thought this would be an easy activity to implement due to personal experience link for the students.

What are your classroom learning goals?

To get the students to realize that anyone can be a scientist and that in fact they are already scientists.

How does this activity tie into your classroom learning goals?

Implementing any activity that pushes the students to think outside of their normal paradigm and potentially shift perceptions is inspirational to me. This activity can do that.

What date do you plan to start this activity?

Two day activity planned for 10/19 and 10/22

*If applicable:* HIDOE standards this lesson will address

7.2.1 Explain the use of reliable print and electronic sources to provide scientific information and evidence

7.6.1 Adjust one's role in a small group, as necessary, in order to carry out an assignment or to complete a project

**Ocean**

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

I will not make a direct connection to the ocean in this activity except to tell about my work experience aboard an educational research vessel and the students that were ‘scientists’ there with me.

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.

X 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.)

Assess prior knowledge, think/pair/share activity, small group discussion, online research of photos

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.)

Students will certainly have misconceptions and want to ‘argue’ those. Changing misconceptions is always difficult. Am hoping that they will all have a mental shift by the end of this activity.

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

X Curiosity

X Description

X Authoritative knowledge

□ Experimentation

X Product evaluation

X Technology

□ Replication

X Induction

X Deduction

X Transitive Knowledge

**Questioning and Assessment Strategies**

1. What *questioning strategies* will you use to help your students meet your learning goals?

Assess prior knowledge through individual homework assignment, group reflection at end to share

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

Students will work in small groups to share their work and evaluate each others products.

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.

This activity was fun for the students because it included an ‘artistic’ element. I wish I had used this as my first activity instead of my last. My lesson plan order was the reverse of how I would do it in the future.