**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 chose to do this activity because it seemed like a beginning place to start to define and understand science and the practices of science in the classroom and in the world; to build an understanding of what it is that scientists do and to share that really scientists are just people.

What are your classroom learning goals?

1. Students will identify the practices of scientists and apply these practices to their own study of science.
2. Connect the practice of science to their daily lives.
3. Compare/Contrast Science with other disciplines of study, ie Language Arts or Math
4. Participate in small group, whole group and individual activities.

How does this activity tie into your classroom learning goals?

Our classroom learning goals are to have students do more project-based learning and hands on activities. This lesson helps to prepare students to view themselves as scientists.

What date do you plan to start this activity? 10-10-12

*If applicable:* HIDOE standards this lesson will address

Standard 1 – Scientific Investigation -

Discover, invent, and investigate using the skills necessary to engage in the scientific process.

**Ocean**

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

 In the lesson we will talk about scientists that study the oceans and marine life. We will discuss that ocean exploration is truly interdisciplinary and requires collaboration among many different types of scientists and innovative ways of thinking.

 Mahai ‘ai is part of our curriculum with Ike Hawaii at our charter school. Ocean is important.

1. 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.

X 6. The ocean and humans are inextricably interconnected

X 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 brainstorm to create a list of “what do scientist do?”

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 don’t see them as struggles as much as it is opportunity for connecting and sharing to get the BIG IDEA…we will just persevere until the “light bulb clicks on”. It often does…

Some students may be confused on the differences & meaning between the words and concepts of discipline and demeanor, but the point is to see that they are similar and incorporate ways of knowing and understand the world with their values and characteristics.

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

□ 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?

I will follow the “script” of the lesson plan and use peer to peer sharing. (elbow partner/share)

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

Students will be assessed on participation in class discussions.

Students will need an “exit pass” to assess knowledge of 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.

Read and rehearse the guide in the binder from TSI.

The class work provided was wonderful and allows me to feel confident in teaching science to our students.

Mahalo