**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 this activity because I wanted my students to appreciate the values and habits of scientists and see themselves as scientists.

What are your classroom learning goals?

**My classroom goals are for my students to gain a better understanding of the inquiry/research process. I also try and stress the ethics of science. I want my students to appreciate that just because there's an experiment that can be done, doesn't necessarily mean it *should* be done. Also, I want my students to understand that scientific discoveries have a HUGE impact on history, politics, the economy, and the environment. I want my students to see themselves as scientists and to understand what it means to think scientifically.**

How does this activity tie into your classroom learning goals?

**This lesson provides a way for students to learn about the habits of scientists and help them see themselves as scientists as we discuss what it means to be a scientist and do science.**

What date do you plan to start this activity?

10/18/2012

*If applicable:* HIDOE standards this lesson will address

(none)

**Ocean**

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

I really don't plan on connecting this lesson to the ocean. I will mention that some scientists work with the ocean. I will also discuss with my students how the ocean is a source of incomes and future jobs.

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.)

for bellwork on one day I'll have my students draw a scientist. Later on, we will revist the topic and discuss what a scientist is and does.

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 really don't see any problems. I do expect that most kids will draw boys and stereotypical scientists.

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

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?

For this activity, I think I'll encourage my students to share their drawings with each other and discuss them.

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

After students draw their scientist, we will return to the drawing, and reflect on what they drew. We will talk about what scientists do and how they think and what they look like, and see if they can use those same words to describe themselves. In the end, I think I'll have my students come together and as a group of 3 or 4 create a 'group' scientist.

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.