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

**Module 1: Physical Aquatic Science**

Name: *Dan Spitler*

Activity: *The Practices of Scientists*

Why did you choose to do this activity?

*As a 6th grade teacher, it seemed to be the easiest entry point for my students, many of whom have little experience doing science in the classroom.*

What are your classroom learning goals?

*In science, that my students start looking at the world differently – at present, they are very passive and do not really push themselves intellectually or scientifically. I would like to get them to start looking at the world through a different lens, in a more questioning and aggressive manner. I want them to take control of their own learning.*

*That and for all of them to pass the HSAs in reading and math ☺*

How does this activity tie into your classroom learning goals?

*This was a first step to get them to start thinking outside the box and many of them struggled. It was interesting to see them draw many stereotypical features in the scientists – male, crazy hair, lab coats, etc. And then to watch as we further discussed and shared our drawings. A few lightbulbs started to flicker – however slightly.*

What date do you plan to start this activity? *September 14, 2012*

*If applicable:* HIDOE standards this lesson will address

**Ocean**

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

*Not really sure that it does…*

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 think this lesson will be best implemented without any review or prep.*

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.)

*Struggles: Getting students to overcome their “drawing phobia”, including good details in their drawings, using good descriptive words to describe each other’s drawing, vocabulary*

*Addressing the struggles: encouragement, asking students to go back to their drawing and descriptions and elaborate/add detail*

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?

*Open-ended questions to drive the drawing and descriptive words, discussion/explanation to facilitate Part C: Demeanors and Descriptions and Part D: Practices of Science*

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

*Exit slips to assess student understanding, pre and post assessments to gauge concept acquisition.*

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.