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

**Module 3: Biological Aquatic Science**

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Activity: Scientific Language

1. Why did you choose to do this activity?

I chose to do the activity Scientific Language because it is a mandatory activity and because I thought this activity was way different from many others in that vocabulary or scientific language is covered and used.

2. What are your classroom learning goals?

My classroom learning goals is to have students practice inquiry through standard 1 scientific inquiry, as an effective process of problem solving.

3. How does this activity tie into your classroom learning goals?

This activity ties into my learning goals as the students are exposed to inquiry of sorts.

4. What date do you plan to start this activity? I planned to start this activity after our TSI teacher training beginning of February.

*5. If applicable:* HIDOE standards this lesson will address

This lesson addresses Standard 1, Scientific Inquiry.

**Ocean**

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

This activity was connected to the ocean through the examples used and the task directives to identify opinion, hypothesis, theory, law, fact.

7. 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**

8. How will you prepare your students for this activity? (For example, review of prior knowledge.)

I want to introduce this activity to my students by setting the stage with curiosity and inviting my students to explore scientific language that is used but at times may not be used correctly and that if we know the difference we will be better prepared.

9. 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.)

 This activity will be difficult for my students because of the vocabulary we will cover. I see that I will have to walk them through the first activity and then give them the second activity to see what they are able to acquire through the walk through.

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

I want to bring students into the activity by asking them what they know of these terms and or what could they possibly mean and by asking them to ask their elbow partner the same questions I have given them.

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| Use the following table to plan your lesson using TSI. For each phase:* **Teacher:** Describe what you will be doing
* **Student:** Describe what your students will be doing
* **Assess:** Describe how you will assess your students in this phase so you can monitor their progress through the activity
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| **INTERPRETATION** | **INITIATION/curiosity**  |
| Teacher | I will be modeling for the students how to use the informational test to answer the activity questions. | Teacher | I have put up the poster of the Phases of Inquiry. The students reviewed the prior experience with conductivity and the outcome. I had to talk to them about the practices of a scientist and that honesty in reporting the information is very important. I showed them where a word in science will mean something way different to others outside of the scientific community |
| Student | Students will be able to observe how I think and what I think when I answer the question by using the informational texts. They will complete the remainder of the questions for homework. | Student | The students reviewed the prior inquiry and shared their notebook assignment of creating a hypothesis and answering the activity inquiry prompts |
| Assess  | The students will be assessed on the completion of the activity questions. | Assess  | I quickly assessed the students as being ready for the activity by observing their eagerness to start a new activity. |
| **INSTRUCTION** |
| Teacher | I asked the students questions on a couple of the different words covered as where scientific language differs from our everyday vocabulary. Students were already curious but when they actually saw pictures of different objects or situations they had a good laugh. |
| Student | Students checked with their elbow partners and easily connected to the visual examples and shared easily with each other. And when asked will make a prediction on meaning of the different words |
| Assess  | By listening to student’s conversations and connections they are making as they work together. |
| **INVESTIGATION/description**  | **INVENTION/ induction**  |
| Teacher |  I will present the environment that students can share openly | Teacher | I will encourage predictions from my students as to what they thought the different vocabulary words meant |
| Student | Students will develop a sense of the scientific language through matching different scenarios to the definition of the individual terms. | Student | The students will use their notebooks to document the definitions of the different words being discussed  |
| Assess | Student understanding as they match the scenarios and the different words | Assess | To assess this phase students will be observing their elbow partners notebook for understanding |

11. Briefly describe how you will guide your students through the TSI Phases of Inquiry. (You are the research director of your classroom, and thus guide or facilitate the learning in your classroom, even if an activity is very student-directed).

To guide my students through the TSI Phases of Inquiry, I will display the poster of the Phases of Inquiry and include in the power point the progress through the phases of inquiry so students are guided to make those connections.

12. What *overarching* TSI mode(s) will you focus on for this activity? Why?

Modes: Curiosity, Description, Authoritative knowledge, Experimentation, Product evaluation, Technology, Replication, Induction, Deduction, Transitive knowledge

The overarching TSI modes will be Induction and curiosity with scientific language as compared to our everyday language we commonly use. My students can be very curious and if the activity such as Scientific Language is presented in parts they will be focused knowing there is an end in sight.

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.

I presented the activity in parts using a power point and worksheets provided through the TSI binder and website.