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

**Module 3: Biological Aquatic Science**

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Activity: Fish Prints

1. Why did you choose to do this activity?

I chose this activity because I it will be colorful for the slide show presentation but mostly because I want to strengthen the Science as Art connection.

2. What are your classroom learning goals? To explore fish for form and function as well as examining our materials ….equipment evaluation.

3. How does this activity tie into your classroom learning goals? Wonder-Full. I want students to discover that Science is fun AND educational.

4. What date do you plan to start this activity? March

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

**Ocean**

6. Describe how you will connect this activity to the ocean: Fish live in the Ocean…it is an easy link.

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

X 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 will utilize the slides. I am excited to use them. I have not had the opportunity before. The classifications of the many types of fish are interesting.

We will note the forms and functions of fish and be able to examine our prints and determine where each of our prints live in the ocean.

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.)

The curiosity question is What is a Fish? Student’s also will have “homework” just like we did to draw a fish in detail…

Then showing the slides to show that many things classified as fish are perhaps not what we think of when we say fish.

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

Focusing questions, clarification/descriptive questioning about the types of fish AND about the artisitic process of what works best and why?

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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** | |
| Teacher | Making sure students have all the equipment needed to create prints | Teacher | Share slide show & prints I made at the TSI class |
| Student | Examining equipment and fish | Student | Will be watching the slide show |
| Assess | Determine where fish live based on their shape and fins | Assess | Note if students can relate form of the fish and it’s environment? |
| **INSTRUCTION** | | | |
| Teacher | Share the print process and show slides of TSI and other goytaku | | |
| Student | Share with one another their processes of printing | | |
| Assess | The prints themselves | | |
| **INVESTIGATION** | | **INVENTION** | |
| Teacher | ? just being available if students need anything to create the prints using both real fish and the rubber fish | Teacher | Monitoring students’ progress in the process |
| Student | See which print process creates “the best” picture to show all features of the fish…investigating and inventing ways to make the best prints | Student | See which print process creates “the best” picture to show all features of the fish…investigating and inventing ways to make the best prints |
| Assess |  | Assess | The prints |

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).

I will redirect their attention to the large poster on the wall. I like to let the students write on their tables…we sit at round tables….and draw the steps on their tables in their groups….but this is individual…the group sharing is in the process and the tables will be covered in newspaper so …we will refer to the diagram on the wall.

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

Description: to describe the attributes of the fish and

equipment evaluation: to see what works best in the printing process.

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.