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

**Module 2: Chemical Aquatic Science**

Name: Terri Ewton

Activity: Electrolysis of Water

1. Why did you choose to do this activity?

I chose to do this activity because we have the Periodic Table of the Elements posted and it seemed the most likely one that we would finish. I’d wanted to also make the still a few days before and do connectivity too but it’s been a little rainy and then we just flat ran out of time.

2. What are your classroom learning goals? The learning goals were to make connections to the states of matter. We studied mater the first semester.

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

4. What date do you plan to start this activity? Today. Jan 25th

*5. If applicable:* HIDOE standards this lesson will address 6.2.1, 6.6.8

**Ocean**

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

Principle 1

7. 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.

X 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.) We watched a short video

http://www.youtube.com/watch?v=bRD\_Tj4MxAk

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.) TIME!!! Will there be enough time???!?!?!

**Questioning and Assessment Strategies**

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

I utilized the prompt questions.

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

6 questions that are provided in the TSI lesson plan.

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| Use the following table to plan your lesson using TSI. For each phase:* **Mode(s):** List the Mode(s) of Inquiry you will incorporate
* **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

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

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| --- | --- |
| **INTERPRETATION** | **INITIATION** |
| Mode(s) | Description | Mode(s) | Curiosity |
| Teacher |  | Teacher |  |
| Student | Describe what they see | Student |  |
| Assess (look for) |  | Assess (look for) |  |
| **INSTRUCTION** |
| Mode(s) |  |
| Teacher | READ THE DIRECTIONS!!! DO THE STEPS |
| Student | Constantly ask question without reading…. |
| Assess (look for) | Actual doing of the experiment |
| **INVESTIGATION** | **INVENTION** |
| Mode(s) | Description | Mode(s) | Experimentation |
| Teacher |  | Teacher |  |
| Student | Actually doing the experiment | Student | Doing the experiment |
| Assess (look for) |  | Assess (look for) |  |

12. Briefly describe how you will direct your students through the Phases of Inquiry.

Remind them to READ the directions and work together in their groups. I only offer a few prompts.

13. What will be the *overarching* mode(s) of this activity? Why?

Curiosity, Technology & Description

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.