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

**Module 1: Physical Aquatic Science**

Name: Ileta Butts

Activity: Density Bags

Why did you choose to do this activity?

We were discussing oceans and I wanted to review density before moving on.

What are your classroom learning goals?

That students will go through the scientific method- observe, create hypothesis, do the experiment, collect data, and analyze it.

How does this activity tie into your classroom learning goals?

Helped to explain density in a fun way so students could see why the plates go under. It would also help students understand how temperature plays a role.

What date do you plan to start this activity? 9/20-9/21

*If applicable:* HIDOE standards this lesson will address

Benchmark 8.6.2

**Ocean**

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

Talking about ocean vs fresh water.

1. 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.

X 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.)

We will review density and the soda lab from before. We will also talk about which one we think is more dense: fresh or salt water.

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.)

Creating the bags, I will create them before class and will refill them if needed during class.

1. Select the TSI Mode(s) of Inquiry that you will focus on for this activity. (check all that apply)

X Curiosity

X Description

□ Authoritative knowledge

X Experimentation

□ Product evaluation

Technology

X Replication

X Induction

□ Deduction

□ Transitive Knowledge

**Questioning and Assessment Strategies**

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

Using a lot of probing questions like why do you think this/that happened. What did you observe? What difference is there between the 2 bags? Etc.

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

I will walk around and try to guide students along, but it will mostly be self-directed learning. They will follow the guidelines and answer questions according to their observations.

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 premade the bags and had the solution ready to be refilled if they needed.