**Lesson Plan by Katy Butler, Jackson Street School, 2015.**

**Topic:** Science

**Lesson**: Introducing the Water Cycle: *All the Water in the World is All the Water in the World*

(hour-long lesson)

**Materials needed**: words to the water cycle song, water cycle poster (with cards and tape) and small clear bead w/ magnet, recording sheet, All the Water in the World by George Ella Lyon, A Drop Around the World by Barbara McKinney. Just in case, load video and song (https://www.youtube.com/watch?v=TWb4KlM2vts) . For experiment (per partner group: one large plastic cup, one small plastic cup, one small sponge to fit in smaller cup, hot water, ice cubes, plastic plates).

**Objectives:**

Students will be able to describe the water cycle

Students will be able to identify the three main parts of the water cycle and give one or two sentences about what each one means

Students will understand that water is always moving in this cycle and the water we have now is what we have always had and what we will always have

Students will be able to observe the water cycle in their own natural environments

**Procedure**:

1. Start with a read aloud the morning before, or day before: All the Water in the World by George Ella Lyon. Use the first two pages “All the water in the world is all the water in the world” to guide and push students thinking. After reading, have kids turn and talk about what that first sentence means.
2. To start the lesson, read A Drop Around the World, one book for every pair. Depending on the timing, read about 6-7 pages.
3. Introduce Water Cycle Song
4. Demonstrate water cycle with clear “water droplet” bead on the poster
5. Water cycle experiment at their seats
6. While waiting for the experiment: Write and draw about what they observe on recording sheet. (Optional: play water cycle video as they wait)

**Connection**: Last week in science we read a National Geographic magazine that taught us how important water is. We learned that every drop counts! Then we did an experiment with water temperature and learned what happens when we mix cold and hot water. In fact, we had some cold water left over so we watered our beet and broccoli seeds. We had some hot water left over so we made some tea. It was delicious - and we didn’t waste a drop of water! This morning we read a book that told us a startling fact: All the water in the world is all the water in the world. We will explore that question right now, and even do an experiment to prove that it is true! Today we will learn all about how water moves around our earth - the water cycle.

**Procedure**:

 I brought this incredible book by Barbara McKinney, called A Drop Around the World. While we read this book, think about our idea: All the water in the world is all the water in the world. What does that mean? You’ll notice that in this book we follow just one rain droplet. See if you can find it on each page!

 Turn and talk with the person next to you and share what you are now thinking about our idea: All the water in the world is all the water in the world.

First graders stand up! We’re now going to become a water droplet just like the one in the book! Watch me first, then you can join in. Sing “Evaporation, Condensation, Precipitation, on my mind, these are three things about the weather, that are happening all the time!” (sung to the tune of My Darling Clementine). Sing it a couple times, emphasizing the cyclical nature.

 [Show the water cycle poster, move the clear bead along the cycle a few times, illustrating the ideas from the book. Have volunteers come up and place the word cards on the appropriate parts.]

 First graders - this means that the water that rains down on us today could be the same water that rained on the Vikings. It could be the same water that surrounded the Titanic. It could be the same water that the dinosaurs drank! All the water in the world is all the water in the world!

 Now you will have a chance to create your own models of the water cycle in groups and prove that idea!

[Quickly model set up procedure] You will have one large tupperware that we will fill with hot water. This will be your ocean. Next, we will place a small cup inside with a little sponge. This will be your land. Then, we will put a plate over the top of your tupperware - this will act like the clouds. Finally, we will add ice cubes on top to make cold air up high in the atmosphere. Once we put all of this together, you should be able to see the water evaporating, condensing at the top, and then watch the precipitation down the sides. We will let it sit for a couple minutes, and then see if our sponge land got wet from precipitation!

 [Students make their way to their table groups - one grownup at each table.]

**Water Cycle Experiment**

Each group needs:

large cup or tupperware

hot water

small cup

dry sponge

saran wrap

ice cubes

 While students wait for the experiment, they can record what they see in the bowl and label each part. This is also a good time to play video.

 Finally, each group will remove the ice cubes and the plates, and check to see if their “land” got wet. If the sponge isn’t wet, have them check the bottom of their plates - are they wet? If so, the condensation just hasn’t gotten heavy enough for it to rain yet. Invite students to keep their experiments up overnight, to check on them in the morning!

 Have them clean up their spots.

 As a wrap up, have them sing the water cycle song once more.

**Assessment**: On another day, have them fill out the water cycle worksheet to put in their science notebooks.