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| **School:** Park Elementary **Grade:** 3rd grade |
| **Date and Time:** March 9, 2020 @ 10:00-11:30 a.m **Lesson Duration:** 90 min. |
| **Unit Title:** EarthScience |
| **Objective(s):**  Students will be able to describe the various components of the water cycle and the path a water molecule might take on its way through the cycle.  They will explain how the water cycle is important to living things and will describe how plants affect the movement of water in a watershed.  **Learning Target(s):**  I can show wonder and perseverance by explaining the water cycle and how it is important to living things and the environment |
| **CO Academic Standards:**  3.3. Earth and Space Science  1. Climate describes patterns of typical weather conditions over different scales and variations; historical weather patterns can be analyzed.  **Evidence Outcome:**  Obtain and combine information to describe climates in different regions of the world. (3-ESS2-2) |
| **Assessment:**   * Their water molecule journey story includes stops in chronological order and includes details that explain how and why the water molecule went where it did * Exit Ticket: ‘Label the Water Cycle’. Provide students with a blank graphic of the water cycle and a list of key vocabulary * Thumbs up/thumbs down |
| **Materials:**   * Beads * Pipe Cleaners * Small Bowls for beads * Doc Cam * Computer * Video: ‘The Water Cycle’ by Happy Learning English (3:57) * Pencil * Exit Ticket: ‘Label the Water Cycle’ * Lined paper for story * Poster of the water cycle * Poster of vocabulary words |
| **Inquiry Question or Big Picture Statement:**   1. Where do you think water comes from? 2. Why don’t oceans and lakes dry up like puddles do? 3. Which stations seemed to be visited by the most water molecules, regardless of their particular journey? What can we infer from this? 4. Can you think of any other parts of the water cycle that were not included in the stations? (lakes, reservoirs, rivers, wells, puddles) 5. What makes the water move through the cycle? (sun, gravity) 6. How is the water cycle important to plants and animals? |
| **Step-by-Step Lesson:**  **INTRODUCTION: (25 min.)**  -Hang up the scientific observations on the board  -Have students sit in a “blob island” on the rug near the whiteboard  -Have students read the science learning target out loud  -I will explain what we will be learning for science, say “Remember when we did our last science lesson, we learned about the 5 regions of the United States? Well today, we are going to focus in on our region, which is in what region?”  -S: the west region  -T: Yes, it is in the west region. But there is something that is a part of all the regions and that is called the water cycle.  -I would like for you all to turn and talk with a partner and tell each other where you think water comes from?  -Say 3,2,1 talking is done!  -Draw names from the lucky bucket and call on students to share their thinking  -Write down key words of what students said on the board  -Say, “I love your ideas and your scientific thinking, that’s the first step to making observations. You can connect this activity today with the study of water in ELA”  -T: Yes, water does come from rain. But where does rain come from?  -S: from the clouds!  -T: And where does the cloud get their water from?  -S: from the ocean!  -T: Yes, it is a circulation of the water cycle  -T: The water cycle is an important asset for all regions around the world, especially our region. The water cycle is also called the hydrologic cycle, it is a cycle of continuous circulation of water in the earth atmosphere. The water cycle involves parts of evaporation, transpiration, condensation, precipitation, and infiltration  -T: Let’s all say the names of the parts together  -T & S: Evaporation! Transpiration! Condensation! Precipitation! Infiltration  -T: Okay, lets watch this short video on the water cycle so you can see how it works  -Show video:  **-**As video is playing, set up the stations on the tables with the beads and if there is enough dice, put two dice at each station  -Review the poster of the vocabulary words, have students read the words out loud together  **MAIN INSTRUCTION: (50 mins.)**  -Explain what we will doing for our activity and the writing activity after the game  -T: The water cycle is really a simplified model for looking at the “journey” of a water molecule.  T: Now, I invite you to play a game where each of you will be a water molecule on a journey through the water cycle. I have different stations that are set up at each table and on the horseshoe table.  -Explain the different stations that are set up at each table  -T: There is a cloud station, the ocean station, the glacier station, the animal station, the soil station, and the river station. There will be a die or dice at each station that has a picture of each station on each side. And there are different color beads that represents each station.  -T: Let me explain how to play the game. Each of you will get a pipe cleaner. You will start at a station and when I say begin you will put a bead on your pipe cleaner and roll the dice. If the dice rolls on glacier, you will go to the glacier station, put one bead on the pipe cleaner. Then you roll the dice again, if it rolls on soil, you will go to the soil station and put a bead on the pipe cleaner and so forth…  -T: You are all going to travel as a water molecule for 6 minutes. When I ring the bell, that means you are done. Then you will have a sit on the rug in a blob island with your pipe cleaner.  -Check for understanding, thumbs up if you understand what we ae doing or thumbs down if you don’t  -Answer any questions students may have.  -Number students off by 5 and have them spit up into groups, then have them go to the stations  -Make sure students have each got a few turns before ringing the bell. Ring the bell  -Once all students are all in “blob island”, ask, “Which stations seemed to be visited by the most water molecules, regardless of their particular journey? What can we infer from this?”  -S: the cloud station..  -Call on students that are quietly raising their hands. After a couple of students have answered. Ask the next question, “Can you think of any other parts of the water cycle that were not included in the stations?  -S: lakes, reservoirs, rivers, wells, puddles…  -Hang up the names of the stations and the color of beads they have  -Explain how they will write a short story that describes the journey of their water molecule through the water cycle.  -T: For example, if I had a pipe cleaner that had cloud, glacier, then river. I would say, I was a little water molecule that was in the cloud. Then it started to rain, and I fell down on the mountain where I froze on the glacier. After I melted, I rolled down into the river.  -Explain to students their story needs to include transition words such as, “next”, “then”, “after”, “before”, and “during”, etc.  -T: You will look at your pipe cleaner to remember where you traveled to help you write your story. When you are done writing your story, you can get an exit ticket that is on the shelf. Please get an office if your on your exit ticket. You can either work with a partner or by yourself with a level 2 voice when your writing your story.  -Remind students they will get a piece of lined paper after the helper has called their table names.  -Put the picture of the water cycle on the board that has, precipitation, transpiration, evaporation, and condensation so students can refer back to it.  -Give students 15 min to complete their story and their exit ticket  -Remind students their exit ticket goes in the tub when they are finished  **DEBRIEF:**  -Have students sit in a circle on the rug when everyone is done  -Ask, “How is the water cycle important to plants and animals?”  -S: it helps them survive and it helps them grow  -T: what are the parts of the water cycle?  -S: Evaporation, Condensation, Transpiration, and Precipitation  -T: Now that we have learned about the water cycle and graphing in math, later on in the year we will be collecting data on water usage after spring break |
| **Differentiation:**   * Using prior knowledge * Paired/cooperative learning * Key vocabulary * Oral/Reading/Writing skills * Students can raise their hand if they have a question * Provide a timer for M or F if they are not staying on task * Put 0’s and I’s for M for behavior plan |