WATER CYCLE BOOGIE: LESSON 1 EVAPORATION

Teacher

SUBJECTS: English Language Arts, Math, Science	**SKILLS:** Experimenting, analyzing and collecting data

MATERIALS

- Computer/tablet/phone
- **FLIPGRID Challenge: Evaporating Puddle Experiment**
- Discovery Kit Materials: Craft Sticks, measuring tape, marker, 2 aluminum pans, trowel, Discovery Journal pages 1-3

COMMON CORE STATE STANDARDS (CCSS)

ENGLISH LANGUAGE ARTS

2.SL.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

2.W.8 Recall information from experiences or gather information from provided sources to answer a question.

MATHEMATICS

2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks and measuring tapes.

2.MD.2 Measure the length of an object twice, using two different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object.

2.MD.10 Draw a picture graph and a bar graph to represent data set with up to four categories.

SCIENCE (OHIO LEARNING STANDARDS)

2.ESS.2 Water is present in the atmosphere.

2.ESS.3 Long- and short-term weather changes occur due to changes in energy.

ESSENTIAL QUESTIONS

1. How does water change my environment?
2. Why do scientists collect data?

I CAN STATEMENTS (LEARNING OBJECTIVES)

1. I can form knowledge of a topic through analysis and research.
2. I can use information from several sources to understand how the water cycle affects my environment.
3. I can understand the water cycle and explain how it works.

LINKS

- ***Slug Science Journeys Homepage*** https://www.miamicountyparks.com/node/1254
- ***Water Cycle Boogie Video*** https://vimeo.com/videobranch/review/415258986/e7e0fc990a

ACTIVITY

PUDDLE EXPERIMENT

Outside, students will create a puddle or find one after it rains in the grass or dirt. To make their own puddle, they can pour water onto their spot. Students will place a stick in the ground next to the puddle and mark the water level on the stick with a permanent marker.

Students will then take two same size containers (bowls) and fill with the exact same amount of water. Students will place one in a spot that gets sun most of the day and the other in a spot that gets shade most of the day. Do the same procedure as with the first puddle. Students will check all 3 puddles once a day for 3 days to check for water level changes (evaporation rate). Students will mark each time they check the puddles on their marker sticks then compare to the original mark on day 3. The students will present their findings on **The FLIPGRID Challenge: Evaporating Puddle Experiment** answering the inquiry questions presented and videoing their experiment procedures. Students will write on the student sheet why the rates of evaporation may have been different in the sun and in the shade. They will also make speculations on where the water in the dirt hole puddle might have possibly gone in addition to possible evaporation.

Continued on next page.

PART 2: Evaporating Puddle Math

Using the provided chart, students can utilize their puddle data to create a chart to show how much evaporates each day, and record the amount in both metric and standard. This information can be used to create a line plot, where the horizontal scale is marked off in whole number units and additional bar graph can be made to show how information can be presented in various forms.

EVIDENCE OF ACTIVITY

Students will complete the Evaporation Student Sheet on pages 1-3 in the Discovery Journal and **The FLIPGRID Challenge: Evaporating Puddle Experiment.**