| **PBL Lesson Plan: 2** | |
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| Content Area(s)/Course/Grade: **MS Math/STEM** | Unit: **PBL Water Conservation: Why is saving water important?** |
| Lesson Topic: **Saving Water Now: The Water Conservation Problem** | Lesson 2: **Your Water Footprint** |
| Indicator(s)/Sub-Outcome(s)/Expectation(s):   * Awareness of daily/week water consumption * Habits or daily routines to promote the use of less water | |
| Student Outcome(s): **SWBAT…**   * Calculate water usage at home * Use data collection to determine changes in lifestyle to reduce water consumption | |
| **Materials for Learning** | |
| * Data collection Chart * Calculator * Data Analysis Chart * Consequence Chart   \*Online Replacement for materials [Water Footprint Calculator](https://www.watercalculator.org/) (watercalculator.org) | |
| **Instructional Delivery** | |
| Opening Activities/Motivation:   * Begin by referring to the learning in Lesson 1; Ask student to share what they learned and why water conservation is important * Share PPT of the average daily water use in the US and what that daily usage looks like (see PPT). * Explain that the students will be collecting data on their own water consumption at home. * Have students create or hand out a data collection tool that they will be using at home for the next week to track how much water they use at home. (After a week of data collection, move to the next steps). | |
| Next Steps:   * Now that students have collected some data, they will calculate their water usage for the week, month, year and compare those to the national average. * Once students have compared their average with the national average; students will then reduce that average by 20% to calculate how much water they should try to conserve. * Students will then determine realistic ways in which they can make better daily habits to reduce their water consumption, using evidence and reasoning and a consequence chart to brainstorm cause and effect of their decisions. (see resource for a sample of a consequences chart). | |
| Closure:   * **Students should share some of the daily habits they feel will reduce their daily water consumption and possible consequences. (Teacher could record these ideas on an anchor chart.)** | |