| **PBL Lesson Plan: 3** | |
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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 3: **Plan of Action: Saving Water for the Future** |
| Indicator(s)/Sub-Outcome(s)/Expectation(s):   * Students will   + examine some of their daily habits around water consumptions   + reflect on their observations and share the knowledge with friends | |
| Student Outcome(s):   * Create a weekly plan and Action Plan/Statement that is supported with evidence. * Call to action a friend – poster, flyer, or video | |
| **Material for Learning** | |
| * Action plan template with sentence stems * Poster or PowerPoint or another digital platform ([www.sketch.io](http://www.sketch.io) or [www.pixilart.com](http://www.pixilart.com)) * Rubric | |
| **Body of the Lesson** | |
| Opening Activities/Motivation:   * Ask students to think back to the daily habits from the previous lesson. * While connecting to their data, students will create a weekly plan or commitment to reduce their water usage. Have them Reflect about (you can have students do a share out):   + What I learned…   + What surprised me....   + What I can do to reduce my water usages is...   + What will you commit to doing?   + How will you do it?   Students will then create an action statement; See the attached template to help them organize their ideas.   * Once students have completed the template they can begin their “call to action” graphic (see procedures below). | |
| Procedures:   * After the action statement is complete students will begin to design a graphic “call to action”; using images/visuals and an enticement to get their peers or family to reduce their water usage as well. (Use evidence from their data collection to support reasoning or argument). | |
| **Assessment/Evaluation (Formative/Summative)** | |
| * Visual has evidence from data collection * Argument or reasoning is clear and is supported by data. * Action statement is supported by data collected | |
| Closure:   * Gallery walk * Reflection (Notebook, Online, Handout, etc.) | |
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| **Key Concept** | **Extensive Evidence L4** | **Convincing Evidence L3** | **Limited Evidence L2** | **No Evidence L1** |
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| Visual Evidence/ Data Collection | Visual evidence supported by 2 or more data points | 1 Visual evidence supported but 1 data point | Visual Evidence included but not supported by data | No Visual Evidence or Data |
| Arguments for reasoning | 3 or more arguments for reasoning are clear and supported by data | 2 arguments for reasoning are clear and supported by data | 1 argument for reasoning may or may not be clear and supported by data | No argument for reasoning |
| Mathematical Evidence and Consistency | Math data matches and are used consistently throughout | Some (2) mathematical evidence but not used throughout | Limited (only 1) mathematical evidence or math errors | No mathematical evidence or only raw data |
| Action Statement has evidence for reasoning/data | Action statement would be effective and reasonable in meeting the 20% goal, and is supported by the data | Action statement is marginally effective and reasonable in meeting the 20% goal, and is supported by data | Action statement is reasonable **or** effective but would reduce by less than 20% and is partially supported by data | Action statement is not reasonable or effective, or is not at all supported by data |
| Creativity | Project uses at least 3 colors.  Original use of visuals or language  Interesting or surprising  takes creative risks. | Project uses 2 colors  Some original use of visuals or language  unpredictable  some surprising elements | project uses one color  little original use of visuals or language  predictable | Project is black and white  no original use of visuals or language  predictable |
| organization and appearance | Uses elements of organizations (such as bullets, arrows, table, bold font, etc.) throughout.  Project is exceptionally neat and orderly | Uses some elements of organizations (such as bullets, arrows, table, bold font, etc.).  Project is fairly neat and orderly | Uses few elements of organizations (such as bullets, arrows, table, bold font, etc.).  Project is marginally neat and orderly | Uses no elements of organizations (such as bullets, arrows, table, bold font, etc.) throughout.  Project is lacking neatness and order |