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| <b>Activity #3</b>                                                                                | Making Molecules and Compounds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Time</b>                                                                                       | 30 Minutes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Materials</b>                                                                                  | <ul style="list-style-type: none"> <li>• <a href="http://www.flinnsci.com/store/Scripts/prodView.asp?idproduct=16346">http://www.flinnsci.com/store/Scripts/prodView.asp?idproduct=16346</a> Molecular Model Kits (Chips of different colors that can be marked for elements)</li> <li>• <a href="http://www.3dmoleculardesigns.com/news2.php">http://www.3dmoleculardesigns.com/news2.php</a> Water Molecular Model kit that each group of students can make water molecules and also each kit allows for several other compounds. <ul style="list-style-type: none"> <li>○ Each Water Kit© cup includes pieces for 12 water molecules, 1 sodium, 1 chloride, 1 ethane, and 1 hydroxyl group. All atoms are magnetized to reflect their positive or negative charges (except for non-polar ethane). Your students can make ice, dissolve salt, evaporate water, explore transpiration, create ethanol, and much, much more! CD with lesson plans and activities included in each kit. Molecules are packaged unassembled. Meets National Science Education Standards. Project Lead the Way® selected the Water Kit© for its BioMedical Sciences™ Program.</li> </ul> </li> </ul> |
| <b>Guiding Questions</b>                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| A. Question 1- What are water molecules and salt compounds made of and how are they put together? |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Plan</b>                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                   | <ul style="list-style-type: none"> <li>• Plans for part 1 of activity <ul style="list-style-type: none"> <li>○ Guiding Questions to ask during this part of the activity: Review of what a water molecule is made of?</li> <li>○ Anticipated Student Responses to guiding questions: Varied</li> <li>○ Students will in groups construct a water molecule and discuss how they are held together.</li> <li>○ Students will photo journal a picture of a water molecule in the journal.</li> </ul> </li> <li>• Plans for part 2 of activity <ul style="list-style-type: none"> <li>○ Guiding Questions to ask during this part of the activity: Review of what a salt compound made of?</li> <li>○ Anticipated Student Responses to guiding questions: Varied</li> <li>○ Students will watch under the Elmo to see the other compounds constructed and discuss.</li> <li>○ Students will photo journal a picture of compounds in the journal with an explanation of what they are each made of.</li> </ul> </li> </ul>                                                                                                                                                             |
| <b>Differentiation</b>                                                                            | <ul style="list-style-type: none"> <li>• Strategy 1- Visuals</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ELL Modification</b>                                                                           | <ul style="list-style-type: none"> <li>• Modification 1- Visuals used</li> <li>• Modification 2- social interaction</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Check for Understanding</b>                                                                    | <p>How you will assess or check for student understanding throughout this activity.</p> <p>Have students pair and share with a partner their ideas of a water molecule and a salt compound and how they are each formed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |