STEPS OF AN INQUIRY LESSON

|  |  |
| --- | --- |
| **STEPS OF AN INQUIRY LESSON** | **EXAMPLE** |
| **ENGAGE**   1. Show students materials. | Show students flour, salt, baking soda, and vinegar. |
| 1. Ask, “What is it?”   Track students’ answers on a KWL chart. | Is it sand? Is it salt? Is it a liquid? |
| 1. What do you know (K) about the materials? | Are they wet? Are they dry? |
| 1. Ask, “What do you want (W) to know about the materials?” | What will happen when we mix them together? |
| **EXPLAIN**   1. Ask, “How (H) can we find out?” | We can mix them together; we can observe them. |
| 1. Prediction – Ask students to predict what will happen to the materials after they decide what they will “do to them. | Do you think the solutes will have the same reaction when they are mixed with the solvent (vinegar)? |
| 1. Experiment – Conduct an experiment with the materials. | Mix each dry material (salute) with the vinegar (solvent). |
| 1. Ask students what is the same about the materials before and after the experiment. | All are liquids and solutions. |
| 1. Ask students what is different about the materials before and after the experiment. | One had a bubbly reaction. |
| **EXPLANATION**   1. Scientific Discovery Statement - Use time delay procedure to teach words related to the concept statement and teach students concept statement for that lesson. | Vocabulary – solute, solvent, solution, chemical reaction, scientific discovery statement. Some mixtures have a chemical reaction. |
| **ELABORATE**   1. Ask students, “What can we find out?” and “Why?” | Did all of the solutes have a chemical reaction when we mixed them in the solvent? Why did the mixture in one cup bubble? |
| **EVALUATE**   1. Ask students, “What did we learn (L)?” | What can happen when you mix materials? Some mixtures have a \_\_\_\_\_\_\_\_\_ reaction. |