

Problem-Based Learning Unit Template

Topic
Matter and Chemistry of Water
Goals/Objectives
<ul style="list-style-type: none">• What makes an object a solid, liquid, or gas? - Focus on the properties of water in all three states.• What makes up matter? - Parts and structure of an atom; elements, organization of Periodic Table; chemical formulas, chemical compounds, chemical reactions/equations• What are the properties of matter? – Focus on the unique qualities of water• How do scientists identify the identity of unknown substances?
Theme
Determining the identity of unknown samples of matter.
Scenario
<p>Ms. Bright recently discovered several objects around Falling Creek Middle School early one morning before school. She is very concerned about these objects because she doesn't know whether they could be dangerous or if they could have special properties. Mrs. Knowles has asked her for help in identifying what these objects are to know whether she needs to send in a special team to remove them or if they are worth lots of money! She has stated that if they have special properties or are worth money then Falling Creek Middle will get to keep some of the money for a fun holiday celebration. Mrs. Knowles has trusted the 6th grade science students with this task because she knows they are starting their unit on matter. Let's use our skills and knowledge to help Falling Creek and make sure nobody gets sick or better yet, let's get some extra money for the school!</p>
Culminating Activity
<p>Students will design an experiment to test the unknown substance and present their design and findings to Mrs. Knowles for her approval.</p>
Problem Question
<p>How can we determine the identity of an unknown object found in the front field?</p>
Student Role
<p>Students will be geologists who are working to identify the whether the unknown objects are safe for the school to keep.</p>