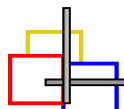


| Activity   | U.S. History/Government   | Science  |
|--|---|--|
| <p><b>EYES ON DISSOLVED OXYGEN</b><br/>STUDENTS LEARN ABOUT DISSOLVED OXYGEN AND THE FACTORS THAT INFLUENCE DO IN A RIVER OR ESTUARINE SYSTEM. THEY WILL MEASURE DO USING EITHER A PROBE OR DISSOLVED OXYGEN CHEMISTRY TESTING KIT (MOST KITS USE THE WINKLER TITRATION METHOD). AFTER MEASURING DO, STUDENTS WILL THEN USE REAL-TIME DATA TO LOOK AT CURRENT DO LEVELS IN THE CHESAPEAKE BAY.</p> <p>OLDER STUDENTS WILL BALANCE THE EQUATION OF THE CHEMICAL REACTIONS THAT TAKE PLACE USING THE WINKLER TITRATION METHOD.</p> | <p>[Potential exists to meet U.S. History 5.2 (Clean Water Act; regulations by the Environmental Protection Agency.)]</p> <p>Government 1.3 (pollution issues); &amp; 3.1 (environmental issues).]</p> <p>Government 3.1.2 (environmental issues).</p> <p>U.S. History 6.2.1 (impact of urban sprawl).</p>    | <p>Goal 1 Skills &amp; Processes</p> <p>Goal 2 Earth Science<br/>2.1.1 Current technology to study the atmosphere, land and oceans.<br/>2.5 Connect prior understanding &amp; new experiences to evaluate natural cycles (all).</p> <p>Goal 3 Biology<br/>3.1.1 (chemistry’s effect on living systems);<br/>3.5 (interdependence);<br/>3.6 (investigate a biological issue).</p> <p>Goal 4 Chemistry<br/>4.2.1 (structure of matter);<br/>4.3.4 (temperature’s affect on gas – dissolved oxygen)<br/>4.4.1 (chemical formulas); 4.4.2 (chemical reactions);<br/>4.4.3 (balancing equations).</p> |
| <p><b>EYES ON HARMFUL ALGAL BLOOMS</b><br/>BY USING THE EYES ON THE BAY WEBSITE, STUDENTS WILL LEARN ABOUT THE CAUSES AND EFFECTS OF HARMFUL ALGAL BLOOMS (HABS). STUDENTS WILL THEN USE AN INTERACTIVE MOVIE TO EXPLORE HABS THAT OCCURED IN THE CHESAPEAKE BAY IN 2003. THEY WILL THEN APPLY THIS LEARNING TO THE CURRENT YEAR IN THE BAY USING REAL-TIME DATA. THEY WILL LOOK FOR RECENT HARMFUL ALGAL BLOOMS AND EXAMINE THE CONDITIONS OF THE BAY PRIOR TO THE BLOOM EVENT.</p>   | <p>[Potential exists to meet U.S. History 5.2 (Clean Water Act; regulations by the Environmental Protection Agency.)]</p> <p>Government 1.3 (pollution issues); &amp; 3.1 (environmental issues).]</p> <p>Government 1.3 (health care &amp; disease).</p> <p>U.S. History 6.2.1 (impact of urban sprawl).</p> | <p>Goal 1 Skills &amp; Processes</p> <p>Goal 2 Earth Science<br/>2.1.1 Current technology to study the atmosphere, land and oceans.<br/>2.5 Connect prior understanding &amp; new experiences to evaluate natural cycles (all).</p> <p>Goal 3 Biology<br/>3.5 (interdependence);<br/>3.6 (investigate a biological issue).</p>   |

<sup>1</sup> Activities meet standards as noted. When a standard is listed without notation, the activity meets the standard fully.



**EYES ON SALINITY**

STUDENTS WILL CONDUCT FOUR DIFFERENT INVESTIGATIONS AND LEARN ABOUT SALINITY BY MAKING A HYDROMETER AND COMPARING ITS USE AND ACCURACY WITH A PURCHASED METER. THEY WILL ALSO COMPARE DATA AND EXAMINE HOW SALINITY EFFECTS THE SURVIVAL OF AQUATIC ORGANIMS. CONNECTING SALINITY TO THE ORGANISMS THAT LIVE IN THE AQUATIC ENVIRONMENTS. FINALLY, STUDENTS WILL LOOK AT HOW SALINITY LEVELS ARE IMPORTANT PART OF THE CHESAPEAKE BAY

Goal 1 Skills & Processes

Goal 2 Earth Science

- 2.1.1 Current technology to study the atmosphere, land and oceans.
- 2.5 Connect prior understanding & new experiences to evaluate natural cycles (all).
- 2.8.1 (investigate an earth science issue) & 2.8.5 (real problems have more than one solution).

Goal 3 Biology

- 3.1.1 (chemistry's effect on living systems; density of water);
- 3.5 (interdependence);
- 3.6 (investigate a biological issue).

