



# C<sup>2</sup> Pipeline

## Enrichment Activity Plans Overview



<b>Enrichment Title</b>	The Science of Alcohol
<b>Description:</b>	Students will learn about alcohol and alcoholism based on scientific research
<b>Enrichment Goal/Objective</b>	Students will understand how the use of alcohol effects their brains, organs, and the risks associated with its use
<b>Evidence of Understanding/Competency</b>	Students will draw conclusions regarding the properties of liquids and solutions. Students will demonstrate how alcohol effects the heartbeat of Daphnia. Students will understand the short- and long-term effects of alcohol on different body systems.
<b>Grant Alignments &amp; Objectives Addressed</b>	<input type="checkbox"/> Family Engagement <input type="checkbox"/> Summer Program <input type="checkbox"/> Special Event <input checked="" type="checkbox"/> SY Program <input type="checkbox"/> School Linkage (eg, Dual Enrollment) <input type="checkbox"/> Other STEM Lab Activities _____
<b>Partner Pathway</b>	<input checked="" type="checkbox"/> Nursing <input checked="" type="checkbox"/> Medicine <input type="checkbox"/> Business <input checked="" type="checkbox"/> Social Work <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Pharmacy & Health Science <input type="checkbox"/> Dental
<b>Career Pathway</b>	<input type="checkbox"/> Engineering & Technology <input checked="" type="checkbox"/> Health Care <input checked="" type="checkbox"/> Science <input checked="" type="checkbox"/> Social Services <input type="checkbox"/> Business
<b>Academic Subjects/Connection to School Day</b>	<ul style="list-style-type: none"> <li>• <b>Core Academic Area / Class:</b></li> <li><input type="checkbox"/> Math (e.g., Algebra, statistics, calculus) _____</li> <li><input checked="" type="checkbox"/> Science (e.g., Chemistry, Biology) – Chemistry, Biology</li> <li><input type="checkbox"/> Social Studies (e.g., Government, Economics) _____</li> <li><input type="checkbox"/> Language _____</li> <li><input type="checkbox"/> CTE (e.g., Marketing, Theater, Newspaper, Child Development, Accounting) _____</li> <li>_____</li> <li><input type="checkbox"/> ELA/Reading _____</li> </ul>
<b>Standards to Address</b>	<ul style="list-style-type: none"> <li>• NGSS</li> <li>• GLECS</li> </ul>
<b>Duration of Enrichment</b>	<ul style="list-style-type: none"> <li>• 8-10 Weeks</li> </ul>
<b>Frequency of Enrichment</b>	<ul style="list-style-type: none"> <li>• Meets one time per week</li> </ul>



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<p><b>Week by Week Timeline SUGGESTED ACTIVITIES</b></p>	<ul style="list-style-type: none"> <li>• <i>Activities by session – Should all be completed in the order listed below</i></li> <li>• Week 1: Assess prior knowledge about alcohol and watch 4 short videos about Alcohol and the Teenage Brain at <a href="https://www.youtube.com/watch?v=g2gVzVIBc_g&amp;index=1&amp;list=PLN1Ld0n9qR3LdrrDMRTtdzBEs7PR58FTE">https://www.youtube.com/watch?v=g2gVzVIBc_g&amp;index=1&amp;list=PLN1Ld0n9qR3LdrrDMRTtdzBEs7PR58FTE</a></li> <li>• Week 2: Liquids – observe physical properties (evaporation time, shape, ability to dissolve sugar, density, etc.) – THIS CAN BE DONE AT THE STEM LAB</li> <li>• Week 3: Solutions – create a formula to produce long lasting bubbles – THIS CAN BE DONE AT THE STEM LAB</li> <li>• Week 4: Measure the effects of alcohol on Daphnia (CAN BE DONE AT THE STEM LAB or can view a video of this lab)</li> <li>• Week 5: Somebody’s Body – Predict effects of alcohol on body systems</li> <li>• Week 6: Alcohol is a chemical – Case study to identify alcohol based on chemical structure+</li> <li>• Week 7: Estimating Risk – compare estimates to real probabilities</li> <li>• Week 8 – One in a Thousand – Effects of alcohol on the human body focusing on blood alcohol content</li> <li>• Week 9: What about Alcohol – reexamine pre-assessment using knowledge gained during this unit</li> </ul>
<p><b>Educational Research</b></p>	<ul style="list-style-type: none"> <li>• <i>Baylor College of Medicine</i></li> </ul>
<p><b>Additional Resources Used</b></p>	<ul style="list-style-type: none"> <li>• <i>YouTube – Alcohol and the Teenage Brain - <a href="https://www.youtube.com/watch?v=q2qVzVIBc_q&amp;index=1&amp;list=PLN1Ld0n9qR3LdrrDMRTtdzBEs7PR58FTE">https://www.youtube.com/watch?v=q2qVzVIBc_q&amp;index=1&amp;list=PLN1Ld0n9qR3LdrrDMRTtdzBEs7PR58FTE</a></i></li> <li>• </li> </ul>