

The UbD Template, Version 2.0

<b>Time Frame: 2 Weeks</b>	<b>Unit Title: Problem Solving</b>	<b>Course Name: Computer Science Grade 8</b>
<b>Stage 1 - Desired Results</b>		
<p><b>Established Goals</b></p> <p>Students will use a structured problem solving process to address problems and design solutions.</p> <p><b>NH CS Standards</b>  <i>AP - Algorithms &amp; Programming</i></p> <ul style="list-style-type: none"> <li>• 1B-AP-08 - Compare and refine multiple algorithms for the same task and determine which is the most appropriate.</li> <li>• 1B-AP-11 - Decompose (break down) problems into smaller, manageable subproblems to facilitate the program</li> </ul>	<b>Transfer</b>	
	<p><i>Students will be able to independently use their learning to...</i></p> <p><b>use the problem solving process to solve different types of problems.</b></p>	
	<b>Meaning</b>	
	<p><b>UNDERSTANDINGS</b>  <i>Students will understand that....</i></p> <ul style="list-style-type: none"> <li>• Following a problem solving model will aid in successful outcomes.</li> <li>• A model is a tool to help reach desired outcomes.</li> <li>• Define, prepare, try, &amp; reflect are key parts to the problem solving model.</li> </ul>	<p><b>ESSENTIAL QUESTIONS</b>  <i>Students will keep considering</i></p> <ul style="list-style-type: none"> <li>• What strategies and processes can I use to become a more effective problem solver?</li> <li>• What is the problem solving process?</li> <li>• What actions can I take to solve problems?</li> </ul>
	<b>Acquisition</b>	
	<p><i>Students will know...</i></p>	<p>Students will be skilled at...</p>

<p>development process.</p> <ul style="list-style-type: none"><li>• 1B-AP-16 - Take on varying roles, with teacher guidance, when collaborating with peers during the design, implementation and review stages of program development.</li></ul>	<ul style="list-style-type: none"><li>• Define - How to thoroughly define a problem.</li><li>• Prepare - Steps to take to prepare a solution to the problem</li><li>• Try - Implementing a solution</li><li>• Reflect - How to reflect on the process and think about future applications</li></ul>	<ul style="list-style-type: none"><li>• Communicating and collaborating with classmates in order to solve a problem</li><li>• Iteratively improving a solution to a problem</li><li>• Identifying different strategies used to solve a problem</li><li>• Identifying the four steps of the problem solving process</li><li>• Given a problem, identifying individual actions that would fall within each step of the problem solving process</li><li>• Identifying useful strategies within each step of the problem solving process</li></ul>
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