

## PLC MATHEMATICAL PERFORMANCE TASK PLANNING GUIDE

<u>Student Content Learning Objective(s):</u>		<u>Mathematical Practice(s)</u> ADDRESSED WITH THIS TASK:		
<u>Academic Mathematical Vocabulary</u> STUDENTS SHOULD USE TO SUPPORT THIS TASK:		<u>Questions</u> TO USE TO GUIDE STUDENT EXPLORATION:		
<u>Multiple Representations</u> (MINIMUM OF 3 FOR A ROBUST LESSON)				
<b>VISUAL</b>          AFFORDANCES:          LIMITATIONS:	<b>SYMBOLIC</b>          AFFORDANCES:          LIMITATIONS:	<b>VERBAL</b>          AFFORDANCES:          LIMITATIONS:	<b>CONTEXTUAL</b>          AFFORDANCES:          LIMITATIONS:	<b>PHYSICAL</b>          AFFORDANCES:          LIMITATIONS:



Anticipated STUDENT SOLUTIONS:

<p><b>SOLUTION #1</b></p>          <p>QUESTIONS YOU WOULD USE TO ADVANCE THIS TYPE OF STUDENT'S LEARNING:</p>          <p>RUBRIC GRADE:</p>	<p><b>SOLUTION #2</b></p>          <p>QUESTIONS YOU WOULD USE TO ADVANCE THIS TYPE OF STUDENT'S LEARNING:</p>          <p>RUBRIC GRADE:</p>
<p><b>SOLUTION #3</b></p>          <p>QUESTIONS YOU WOULD USE TO ADVANCE THIS TYPE OF STUDENT'S LEARNING:</p>          <p>RUBRIC GRADE:</p>	<p><b>SOLUTION #4</b></p>          <p>QUESTIONS YOU WOULD USE TO ADVANCE THIS TYPE OF STUDENT'S LEARNING:</p>          <p>RUBRIC GRADE:</p>



## MATHEMATICAL PERFORMANCE TASK RUBRIC

	<b>UNDERSTANDING (CONTENT)</b>	<b>PLANNING AND EXECUTION (MATHEMATICAL PRACTICE)</b>	<b>COMMUNICATION (MATHEMATICAL PRACTICE)</b>	<b>PRODUCTIVE STRUGGLE (MATHEMATICAL PRACTICE)</b>
<b>4</b>	<ul style="list-style-type: none"> <li>SHOWS COMPLETE UNDERSTANDING OF THE REQUIRED MATHEMATICAL KNOWLEDGE.</li> <li>THE SOLUTION COMPLETELY ADDRESSES ALL MATHEMATICAL COMPONENTS PRESENTED IN THE TASK.</li> </ul>	<ul style="list-style-type: none"> <li>USES ONLY THE IMPORTANT ELEMENTS OF THE TASK</li> <li>USES AN APPROPRIATE AND COMPLETE STRATEGY FOR SOLVING THE PROBLEM.</li> <li>USES ONLY RELEVANT INFORMATION.</li> <li>USES CLEAR AND EFFECTIVE DIAGRAMS, TABLES, CHARTS, AND GRAPHS.</li> </ul>	<ul style="list-style-type: none"> <li>THERE IS A CLEAR, EFFECTIVE EXPLANATION OF THE SOLUTION. ALL STEPS ARE INCLUDED TO THE READER DOESN'T HAVE TO INFER HOW THE TASK WAS COMPLETED.</li> <li>MATHEMATICAL REPRESENTATION IS ACTIVELY USED AS A MEANS OF COMMUNICATING IDEAS.</li> <li>THERE IS PRECISE AND APPROPRIATE MATHEMATICAL TERMINOLOGY AND NOTATION.</li> </ul>	<ul style="list-style-type: none"> <li>WORKS HARD ON THE TASK AND DOESN'T NEED MUCH HELP.</li> <li>STUDENT EXTENDS HIS THINKING BEYOND THE PROBLEM TO MAKE NEW CONNECTIONS OR TO CREATE NEW PROBLEMS.</li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>SHOWS NEARLY COMPLETE UNDERSTANDING OF REQUIRED MATHEMATICAL KNOWLEDGE.</li> <li>THE SOLUTION ADDRESSES ALMOST ALL OF THE MATHEMATICAL COMPONENTS PRESENTED IN THE TASK. THERE MAY BE MINOR ERRORS.</li> </ul>	<ul style="list-style-type: none"> <li>USES MOST OF THE IMPORTANT ELEMENTS OF THE TASK.</li> <li>USES AN APPROPRIATE BUT INCOMPLETE STRATEGY FOR SOLVING THE PROBLEM.</li> <li>USES MOST OF THE RELEVANT DATA.</li> <li>APPROPRIATE BUT INCOMPLETE USE OF DIAGRAMS, TABLES, CHARTS AND GRAPHS.</li> </ul>	<ul style="list-style-type: none"> <li>THERE IS A CLEAR EXPLANATION.</li> <li>THERE IS APPROPRIATE USE OF ACCURATE MATHEMATICAL REPRESENTATION.</li> <li>THERE IS EFFECTIVE USE OF MATHEMATICAL TERMINOLOGY AND NOTATION.</li> </ul>	<ul style="list-style-type: none"> <li>WORKS HARD ON THE TASK AND ONLY GETS HELP AFTER HAVING TRIED MANY STRATEGIES GIVEN THROUGHOUT.</li> <li>COMPLETES TASK AND WORKS AT THE HARDER PARTS.</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>SHOWS SOME UNDERSTANDING OF THE REQUIRED MATHEMATICAL KNOWLEDGE.</li> <li>THE SOLUTION ADDRESSES SOME, BUT NOT ALL THE MATHEMATICAL COMPONENTS PRESENTED IN THE TASK.</li> </ul>	<ul style="list-style-type: none"> <li>USES SOME IMPORTANT ELEMENTS OF THE TASK.</li> <li>USES AN INAPPROPRIATE STRATEGY OR APPLICATION OF STRATEGY IS UNCLEAR.</li> <li>USES SOME RELEVANT DATA.</li> <li>LIMITED USE OR MISUSE OF DIAGRAMS, TABLES, CHARTS, AND GRAPHS.</li> </ul>	<ul style="list-style-type: none"> <li>THERE IS AN INCOMPLETE EXPLANATION; IT MAY NOT BE CLEARLY REPRESENTED.</li> <li>THERE IS SOME USE OF APPROPRIATE MATHEMATICAL REPRESENTATION.</li> <li>THERE IS SOME USE OF MATHEMATICAL NOTATION APPROPRIATE TO THE TASK.</li> </ul>	<ul style="list-style-type: none"> <li>CAN DO SIMPLE PARTS OF THE PROBLEM INDEPENDENTLY OR WITH PEER SUPPORT.</li> <li>STARTS WORKING ON THE HARDER PARTS, BUT UNLESS THERE IS HELP, GIVES UP.</li> </ul>
<b>1</b>	<ul style="list-style-type: none"> <li>SHOWS LIMITED OR NO UNDERSTANDING OF THE PROBLEM, PERHAPS ONLY RE-COPYING THE GIVEN DATA.</li> <li>THE SOLUTION ADDRESSES NONE OF THE MATHEMATICAL COMPONENTS REQUIRED TO SOLVE THE TASK.</li> </ul>	<ul style="list-style-type: none"> <li>USES NONE OF THE IMPORTANT ELEMENTS OF THE TASK.</li> <li>WORKS HAPHAZARDLY WITH NO PARTICULARLY STRATEGY FOR SOLVING THE PROBLEM.</li> <li>USES IRRELEVANT DATA.</li> <li>DOES NOT SHOW USE OF DIAGRAMS, TABLES, CHARTS, OR GRAPHS.</li> </ul>	<ul style="list-style-type: none"> <li>THERE IS NO EXPLANATION OF THE SOLUTION OR THE EXPLANATION CANNOT BE UNDERSTOOD OR IS UNRELATED TO THE TASK.</li> <li>THERE IS NO USE OR INAPPROPRIATE USE OF MATHEMATICAL REPRESENTATIONS.</li> <li>THERE IS NO USE, OR MOSTLY INAPPROPRIATE USE, OF MATHEMATICAL TERMINOLOGY AND NOTATION.</li> </ul>	<ul style="list-style-type: none"> <li>NEEDS HELP, EVEN FOR THE VERY SIMPLE PORTION OF THE TASKS.</li> <li>GIVES UP QUICKLY, OFTEN JUST WANTING SOMEONE TO GIVE THE ANSWER.</li> </ul>
<b>0</b>	<ul style="list-style-type: none"> <li>NO EVIDENCE AVAILABLE.</li> </ul>	<ul style="list-style-type: none"> <li>NO EVIDENCE AVAILABLE.</li> </ul>	<ul style="list-style-type: none"> <li>NO EVIDENCE AVAILABLE.</li> </ul>	<ul style="list-style-type: none"> <li>NO EVIDENCE AVAILABLE.</li> </ul>

