## **Math Tasks Rubric**

Exceeds: E Proficient: PR Developing Proficiency: DP Does Not Meet: DNM

	Understanding
E-5	<ul> <li>Complete understanding demonstrated in all problem solving steps (steps have to be included)</li> <li>Images illustrating the work are clearly constructed, correctly labeled and demonstrate complete understanding of the task and the model (images have to be included)</li> <li>Answers to all questions are thorough, relevant and thoughtful</li> <li>Solution is enhanced with relevant references or resources beyond the given materials Possible examples – Connecting the math task work to the big picture via:         <ul> <li>Additional class ideas and references (examples referenced-articles or competency readings)</li> <li>The mathematics of a conference presentation that you attended (well described)</li> <li>Educationally relevant web resource (examples given, referenced and not part of assignment)</li> <li>CCSS math task resources (beyond simple standard references, see CCSS resource page)</li> </ul> </li> </ul>
E/PR-4	<ul> <li>Complete understanding demonstrated in all problem solving steps (steps have to be included)</li> <li>Images illustrating the work are clearly constructed, correctly labeled and demonstrate complete understanding of the task and the suggested model (images have to be included)</li> <li>Answers to all questions are thorough, relevant and thoughtful</li> </ul>
PR-3	<ul> <li>Adequate understanding demonstrated in all problem solving steps</li> <li>Images demonstrate understanding, are clearly constructed and labeled</li> <li>Answers to all questions are complete</li> </ul>
PR/DP-2	<ul> <li>Partial, but not complete understanding demonstrated in given problem solving steps         OR</li> <li>Applicable images are included but unclear or don't demonstrate understanding of concepts or the         model under study</li> </ul>
DP-1	<ul> <li>Work does not demonstrate much understanding of the problem</li> </ul>
DNM-0	<ul> <li>Work is missing or does not demonstrate any understanding of the problem</li> </ul>

	Accuracy and Completeness
E-5	<ul> <li>All problem solving steps are included, complete and accurate (all work is shown)</li> <li>All associated images are included, complete, and accurately labeled and accurately and fully use the suggested model</li> <li>Answers to questions enhanced with relevant references, accurate extensions and ideas         Possible examples – Extending the math task work by:         <ul> <li>Solving the problem in more than one way</li> <li>Extending the solution beyond the question asked</li> <li>Connecting the problem solving path to a related math idea or question</li> <li>Connecting the problem solving path to a referenced article, reading or educationally relevant web resource (examples given, referenced and not part of assignment)</li> </ul> </li> </ul>
E/PR-4	<ul> <li>All problem solving steps are included, complete and accurate (all work is shown)</li> <li>All associated images are included, complete, and accurately labeled and accurately and fully use the suggested model</li> </ul>
PR-3	<ul> <li>Work is complete and accurate with clear solution path except for minor accuracy error, minor lack of completion or minor issues with images</li> </ul>
PR/DP-2	<ul> <li>Work is partially complete         OR</li> <li>Work is partially accurate or missing part of the solution path or images</li> </ul>
DP-1	<ul> <li>Work is partially complete         AND</li> <li>Work is partially accurate or missing part of the solution path or images</li> </ul>
DNM-0	<ul> <li>Work is missing or incorrect</li> </ul>

	Communication
E-5	<ul> <li>All work, all problem solving steps, all model uses and all reflections are clearly and thoroughly explained (steps have to be included)</li> <li>Embedded images are crisp (not blurry) or drawn particularly well (images must be included)</li> <li>Embedded images are clearly and completely labeled (images must be included)</li> <li>Work is displayed precisely with answers and images contiguously, precisely and pleasingly integrated throughout the response in a way that is easy for any reader to follow</li> <li>Work is typed or handwritten very neatly and clearly</li> <li>Well written, and free from grammatical and spelling errors</li> </ul>
E/PR-4	<ul> <li>All work, all problem solving steps, all model uses and all reflections are clearly and thoroughly explained (steps have to be included)</li> <li>Embedded images are crisp (not blurry) or drawn particularly well (images must be included)</li> <li>Embedded images are clearly and completely labeled (images must be included)</li> <li>Well written, and free from grammatical and spelling errors</li> </ul>
PR-3	<ul> <li>Some work, problem solving steps, model use or reflections are only partially explained         OR displayed in an unclear or confusing manner</li> <li>Included images are crisp (not blurry or sloppy) and clearly communicate process and work</li> </ul>
PR/DP-2	<ul> <li>Some work, problem solving steps, model use or reflections are only partially explained         AND displayed in an unclear or confusing manner         OR</li> <li>Included images are blurry or poorly drawn</li> </ul>
DP-1	<ul> <li>Work, problem solving, model use and reflections are only partially explained and are displayed in an unclear or confusing manner, and included images are blurry or poorly drawn</li> </ul>
DNM-0	<ul> <li>Work, problem solving, images and reflections are unclear or missing</li> </ul>