

**Chapter 3 Task Rubric**

<b>Categories</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>
<b>Knowledge and Understanding</b> <ul style="list-style-type: none"> <li>Determines quadratic equations to model the path of the track for parts a), c), and d).</li> <li>Determines the height of the camera in part b).</li> </ul>	Makes major errors in determining the equations. Determines the height of the camera with significant assistance.	Makes minor errors in determining the equations. Determines the height of the camera with minimum assistance.	Correctly determines the equations. Determines the height of the camera without assistance.	Correctly determines and completely supports the equations. Determines the height of the camera without assistance.
<b>Thinking</b> <ul style="list-style-type: none"> <li>Prepares a plan to solve the problem.</li> <li>Carries out the plan.</li> </ul>	Needs extensive assistance to begin organizing a plan and needs clearly laid out steps to follow.	Needs some assistance to begin organizing a plan and needs some steps to follow.	Needs minimal assistance to organize and implement an effective strategy.	Needs no assistance to organize and implement an effective strategy.
<b>Communication</b> <ul style="list-style-type: none"> <li>Clear explanations and full justifications.</li> </ul>	Does not clearly explain or justify solution.	Explains and justifies solution somewhat.	Explains and justifies solution fully.	Explains, justifies, and shows insight into the complexities of the solution.
<b>Application</b> <ul style="list-style-type: none"> <li>Designs part of a roller coaster ride and uses quadratic functions and sketches to model the design.</li> </ul>	Designs a simple reasonable model identified without any mathematically correct equations.	Designs a simple reasonable model identified with at least one mathematically correct equation.	Designs a reasonable model identified with mathematically correct equations.	Designs a reasonable and complex model identified with mathematically correct equations.