

### Roller Coaster Rubric

	<b>Exceeds the Standard - 4</b>	<b>Meets the Standard - 3</b>	<b>Approaches the Standard - 2</b>	<b>Does not meet - 1</b>
Whiteboard (Standard WHA.1)  1	<ul style="list-style-type: none"> <li>•Includes all '3' items and</li> <li>•Organization of whiteboard improves aids &amp; improves explanation</li> </ul>	<ul style="list-style-type: none"> <li>•Includes: Standard Analyzed, Data Table (at least 3 trials), Unit Conversion, Labeled Diagram, Appropriate Calculations</li> <li>•Writing is neat &amp; easy to read</li> </ul>	<ul style="list-style-type: none"> <li>• missing 1 of items listed above</li> <li>•Writing is neat &amp; easy to read</li> </ul>	<ul style="list-style-type: none"> <li>• missing 2 or more items listed above</li> </ul>
Video (Standard WHA.1)  1	<ul style="list-style-type: none"> <li>•Includes all '3' items and</li> <li>•Quality &amp; clarity of video demonstrates high level of effort and/or practice prior to recording</li> </ul>	<ul style="list-style-type: none"> <li>•Video length ≤ 5 minuets</li> <li>•Appropriate volume level</li> <li>•All whiteboard items explained</li> <li>•Showing of video clip of ride</li> </ul>	<ul style="list-style-type: none"> <li>•Video length ≤ 5 minuets</li> <li>•Acceptable volume level</li> <li>•1 item (whiteboard, ride video) is not explained/missing</li> </ul>	<ul style="list-style-type: none"> <li>•<b>Video length ≥ 5 minuets</b></li> <li>•Volume level is too loud or too much background noise to be heard clearly</li> <li>•1 item (whiteboard, ride video) is not explained/missing</li> </ul>
Physics Principle (Standard P.D.19) (Standard P.D.21) (Standard P.F.35) (Standard P.E.45) (Standard P.E.48) (Standard P.C.57) (Standard P.C.58)  6	<ul style="list-style-type: none"> <li>•Includes all '3' items and</li> <li>•solution includes all <b>correct</b> units</li> <li>•Supporting details and/or examples that increase the viewer's ability to understand the video</li> </ul>	<ul style="list-style-type: none"> <li>Includes:</li> <li>• What the problem is asking for (with correct units)</li> <li>• What is known</li> <li>• Description of each variable</li> <li>• How/why the chosen formula used</li> <li>• How values were substituted</li> </ul>	<ul style="list-style-type: none"> <li>Missing an item from '3' that makes it unclear if the <i>physics</i> of the problem is understood</li> </ul>	<ul style="list-style-type: none"> <li>Missing multiple items from '3' that makes it clear that the <i>physics</i> of the problem is <b>not</b> understood</li> </ul>
Unit Conversion Explanation (Standard P.G.67)  2	<ul style="list-style-type: none"> <li>Includes all '3' items and student explains the reason for the proper unit conversions</li> </ul>	<ul style="list-style-type: none"> <li>•All values have <b>logical</b> units</li> <li>•All necessary unit conversions are correct</li> </ul>	<ul style="list-style-type: none"> <li>•Missing an item from 3 that makes it unclear that student understands unit conversions</li> </ul>	<ul style="list-style-type: none"> <li>Missing 2 items from 3 that makes it unclear that student understands unit conversions</li> </ul>

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Whiteboard (Standard WHA.1)  1	<ul style="list-style-type: none"> <li>•Includes all '3' items and</li> <li>•Organization of whiteboard improves aids &amp; improves explanation</li> </ul>	<ul style="list-style-type: none"> <li>•Includes: Standard Analyzed, Data Table (at least 3 trials), Unit Conversion, Labeled Diagram, Appropriate Calculations</li> <li>•Writing is neat &amp; easy to read</li> </ul>	<ul style="list-style-type: none"> <li>• missing 1 of items listed above</li> <li>•Writing is neat &amp; easy to read</li> </ul>	<ul style="list-style-type: none"> <li>• missing 2 or more items listed above</li> </ul>
Video (Standard WHA.1)  1	<ul style="list-style-type: none"> <li>•Includes all '3' items and</li> <li>•Quality &amp; clarity of video demonstrates high level of effort and/or practice prior to recording</li> </ul>	<ul style="list-style-type: none"> <li>•Video length ≤ 5 minuets</li> <li>•Appropriate volume level</li> <li>•All whiteboard items explained</li> <li>•Showing of video clip of ride</li> </ul>	<ul style="list-style-type: none"> <li>•Video length ≤ 5 minuets</li> <li>•Acceptable volume level</li> <li>•1 item (whiteboard, ride video) is not explained/missing</li> </ul>	<ul style="list-style-type: none"> <li>•<b>Video length ≥ 5 minuets</b></li> <li>•Volume level is too loud or too much background noise to be heard clearly</li> <li>•1 item (whiteboard, ride video) is not explained/missing</li> </ul>
Physics Principle (Standard P.D.19) (Standard P.D.21) (Standard P.F.35) (Standard P.E.45) (Standard P.E.48) (Standard P.C.57) (Standard P.C.58)  6	<ul style="list-style-type: none"> <li>•Includes all '3' items and</li> <li>•solution includes all <b>correct</b> units</li> <li>•Supporting details and/or examples that increase the viewer's ability to understand the video</li> </ul>	<ul style="list-style-type: none"> <li>Includes:</li> <li>• What the problem is asking for (with correct units)</li> <li>• What is known</li> <li>• Description of each variable</li> <li>• How/why the chosen formula used</li> <li>• How values were substituted</li> </ul>	<ul style="list-style-type: none"> <li>Missing an item from '3' that makes it unclear if the <i>physics</i> of the problem is understood</li> </ul>	<ul style="list-style-type: none"> <li>Missing multiple items from '3' that makes it clear that the <i>physics</i> of the problem is <b>not</b> understood</li> </ul>
Unit Conversion Explanation (Standard P.G.67)  2	<ul style="list-style-type: none"> <li>Includes all '3' items and student explains the reason for the proper unit conversions</li> </ul>	<ul style="list-style-type: none"> <li>•All values have <b>logical</b> units</li> <li>•All necessary unit conversions are correct</li> </ul>	<ul style="list-style-type: none"> <li>•Missing an item from 3 that makes it unclear that student understands unit conversions</li> </ul>	<ul style="list-style-type: none"> <li>Missing 2 items from 3 that makes it unclear that student understands unit conversions</li> </ul>