

## Outcome Correlation: Which Roller Coaster is For Me? Mathematics 20-3

### ASSESSMENT AND EVALUATION OF STUDENT LEARNING

This performance task is designed to gather assessment evidence for the following learner outcomes (shown in Times New Roman font) from the Alberta Mathematics Program of Studies (2008).

Learner Outcomes		Criteria for Evaluation *
<b>General Outcome – Algebra</b> Develop algebraic reasoning.		Students provide evidence of their learning as they:
Strand	Specific Outcomes	
Algebra	2. Demonstrate an understanding of slope: <ul style="list-style-type: none"> <li>• as rise over run</li> <li>• as rate of change</li> <li>• by solving problems</li> </ul> [C, CN, PS, V]	<ul style="list-style-type: none"> <li>• determine slopes</li> <li>• explain the implications of the slope on the roller coaster's speed</li> <li>• justify choice of roller coaster</li> <li>• describe a graphical representation in terms of slope</li> </ul>

\* Criteria statements appear again in the first column of the evaluation tools (checklists, rating scales and/or rubrics) and are the basis on which student evaluation is made relative to the learner outcomes.

Mathematical processes are skills that are addressed at all grade levels. They are not taught as discrete skills, but are integrated into the specific outcomes. Links to the processes identified in the Program of Studies are indicated within square brackets after the specific outcomes.

Throughout this task, the following mathematical processes are specifically addressed:

- Communication: communicate in order to clarify, reinforce and modify ideas.
- Connections: connect mathematical ideas to each other or to the real world.
- Problem Solving: develop and apply new mathematical knowledge through problem solving.
- Reasoning: explore, analyze, generalize and conclude.
- Visualization: create, interpret and describe a visual representation.