

Assessment Rubric for Virtual Artillery Range Experiment

This is a collaborative activity and most (80%) of the points are awarded on the basis of group performance. The rubric is designed to produce a minimum grade of 50 for any student who completes the assignment.

Item	Poor	Fair	Good	Excellent
Data Collection 20 points	Students selected data points that were in a very limited range either $<45^\circ$ or $>45^\circ$ (10 points)	Students selected data points that were either $<45^\circ$ or $>45^\circ$ but not both (14 points)	Students selected data points that were $<45^\circ$ and $>45^\circ$, but not $=45^\circ$ (17 points)	Students selected data points that were $<45^\circ$, $=45^\circ$, and $>45^\circ$ (20 points)
Data Processing 20 points	Data graphed incorrectly and not labeled properly (10 points)	Data graphed incorrectly, but labeled properly (14 points)	Data graphed correctly, with variables on wrong axes, but scaled and labeled properly (17 points)	Data graphed correctly, with variables on correct axes, and scaled and labeled properly (20 points)
Questions 20 points	4 or fewer questions answered correctly (10 points)	5 questions answered correctly (14 points)	6 questions answered correctly (17 points)	7 questions answered correctly (20 points)
Group Participation 20 points	Students showed little or no teamwork (10 points)	Students showed some teamwork (14 points)	Students had difficulty reaching consensus on what to do (17 points)	Students worked together effectively and cooperatively (20 points)
Individual Participation 20 points	Student shows little participation in discussion and/or experiment (10 points)	Student shows some participation in discussion and/or experiment (14 points)	Student actively participates in discussion and/or experiment (17 points)	Student takes leadership role in discussion and/or experiment (20 points)