

Driverless Cars and Analysis of Motion

Grade 12 – Motion and its Applications

Accelerated Car Rubric

| | Level 4 | Level 3 | Level 2 | Level 1 |
|--------------------------------|--|---|---|--|
| Knowledge and Understanding | Students demonstrate thorough knowledge of the concepts and terminology related to motion. | Students demonstrate considerable knowledge of the concepts and terminology related to motion. | Students demonstrate some knowledge of the concepts and terminology related to motion. | Students demonstrate limited knowledge of the concepts and terminology related to motion. |
| Application | Students performed the experiment accurately, adapting or extending procedures as required. All calculations were correctly performed. | Students performed the experiment with good accuracy. All calculations were correctly performed. | Students performed the experiment. Most calculations were correctly performed. | Students performed the experiment. Some calculations were correctly performed. |

| Thinking and Investigation | Students accurately and thoroughly identify whether the evidence supports or refutes the initial prediction or hypothesis and whether it is consistent with scientific theory. Students can identify at least 2 reasonable sources of bias and/or error; and suggest improvements to the inquiry to reduce the likelihood of error. | Students accurately identify whether the evidence supports or refutes the initial prediction or hypothesis. Students can identify at least 2 sources of bias and/or error; and suggest improvements to the inquiry to reduce the likelihood of error. | Students identify whether the evidence supports or refutes the initial prediction or hypothesis with some accuracy. Students can identify at least 1 source of bias and/or error. | Students identify whether the evidence supports or refutes the initial prediction or hypothesis with some accuracy. |
|-------------------------------|---|--|--|---|
| Communication | Students recorded all data appropriately and created clear and accurate graphs following all graphing rules. | Students recorded all data appropriately and created accurate graphs following most graphing rules. | Students recorded all data and created graphs following most graphing rules. | Students recorded data and created a graph following some graphing rules. |