H

Higher Assignment
Protocol Sheet: acceleration and slopes

**Determine gravitational field strength from a slope/**

**Acceleration down a slope**

**Apparatus**

Trolley with single or double mask, 1 or 2 light gates, ramp, books, power supply, interface, computer



**Instructions:**

* Choose the set up (double mask and 1 light gate or single mask and two light gates) and select the appropriate .
* Measure the length of the slope using a metre stick or tape measure.
* Compensate the slope for friction.
* Allow the trolley to roll down the slope
* Record the acceleration of the trolley
* Adjust the height of the trolley.
* Use the appropriate format to find the relationship between the angle of slope and the acceleration of the trolley
* OR use the appropriate format to find the value of g.

**Risk Assessment**

* Do a visual check on all wiring to ensure it is safe. Discuss with a teacher if you have any concerns.
* Do an electrical safety check by observing all the wires.
* Ensure the trolley cannot be a trip hazard to yourself or others.
* Be observant to those around you.
* Do not block fire exits or routes out of the classroom with the apparatus.