PAG 1.1 Investigation to compare methods of determining *g*In this experiment you will be comparing different methods of determining the acceleration of free fall, the acceleration *g* due to gravity. This will allow you to evaluate the outcome of each experiment and consider the factors involved which give rise to differing values achieved. You are expected to be familiar with the basic formulae involving acceleration : *a =* (*v - u*) */ t* and should be able to use *s = ut + ½ at2* where *s* is distance, *u* is initial velocity, *a* is acceleration and *t* is time. The aims are to determine a value for g using a variety of methods and compare the results obtained and to follow the instruction given and demonstrated by your physics teacher.

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|  | Ticker tape timer | Falling ball and electronic timer | Light gates and datalogger | Manual timing |
| Measurements  and Settings |  |  |  |  |
| Calculations |  |  |  |  |
| Result g/ms-2 |  |  |  |  |
| Sources of uncertainty |  |  |  |  |
| Conclusions |  | | | |