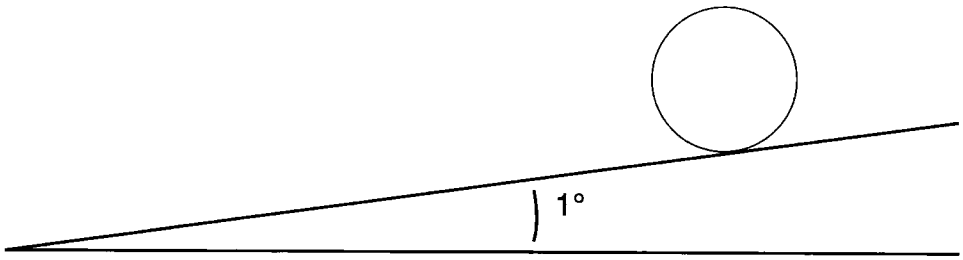
2008 – 9 BPhO SCHOOL PHYSICS COMPETITION:

The Motion of a 300*g can of Heinz Cream of Tomato Soup down an inclined slope at one degree to the horizontal



The experiment requires the measurement of the translational displacement with time , starting from rest, of a 300* g can of Heinz Cream of Tomato Soup down a one degree incline. It is recommended that a smooth plank, of at least 2 m length and 20 cm width, be used. Measurements of different distances travelled should be timed and a graph of distance against time drawn. From this graph, graphs of velocity and acceleration against time should be constructed. This is to be carried out at three temperatures: (i) room temperature (ii) the temperature of a refrigerator (not freezer) (iii) 40°C.

Students are required to produce a scientific paper giving a description of their work , equipment, tables of measurements, graphs, and diagrams. They should consult the e-journal produced by the King's School Canterbury (http://www.youngscientists.co.uk) for illustrations of such papers.

The paper can be submitted by individual students or a pair of students. There are two categories of entry: category **A** is for students in years 12 and 13 preparing for A or AS level examinations, Highers in Scotland, or IB , category **G** is for GCSE, year 11 students, or equivalent aged students. The teacher should submit the best project report, in each category, from the school in both hard copy and disk form. These should be sent to

Dr C. Isenberg
BPhO Experimental Competition
Electronics Laboratory
University of Kent
Canterbury, Kent CT2 7NT

by Monday 15 December 2008. The best papers will be published in the e-journal and the students concerned will be invited to a Presentation at The Royal Society on Thursday 30 April 2009. All students , at each school, who carried out the experiment and produced a project report will receive a certificate.

* If you are unable to obtain a 300 g can, a larger can is acceptable