Investigating factors affecting simple harmonic motion

Introduction

This practical activity is intended to be carried out as an investigation into simple harmonic motion rather than being a defined set of instructions for a particular experiment.

The apparatus provided allows for a variety of approaches which are for you to define. You will consider the theory of simple harmonic motion from your lessons, and choose what to investigate. You may want to research and consult additional sources of information before deciding on the format of your investigation.

Aim

- To define the practical activity you intend to carry out
- To identify the variables
- To obtain data
- To analyse and evaluate that data

Intended class time

- 60 to 90 minutes

Equipment (per group)

- set of masses
- pendulum bob
- string
- spring
- protractor
- set square
- stand, boss and clamp
- stopclock
- data-logger with position encoder (if available)

Health and safety

Avoid dropping masses, a box with bubble wrap under the masses will cushion any fall.

Procedure

- Detail your procedure

Extension

- Link your observations to theory from your lessons or additional research

Recording

As evidence for the Practical Endorsement you should have detailed your intended method and the variables which you took into account. You should have evidence of the data collected in a clear and logical format followed by your conclusion and evaluation of your results. All work should be clearly dated.