

NEATH PORT TALBOT COLLEGE COLEG CASTELL NEDD PORT TALBOT

School of Maths & Science Science Practical

To determine the position of your centre of gravity.

◆ Aim

To determine the centre of gravity of a human being.

◆ Introduction

By taking appropriate measurements of force from a bathroom scales and by using the principle of moments determine the position of the centre of gravity of a person.

◆ Safety

Control Measures

- You are reminded of the need of good laboratory practice in order to maintain a safe working environment.

Hazards

General Hazard

Take care in positioning yourself along the plank of wood.



◆ Apparatus Required

Plank of wood, support, bathroom scales, metre rule.

◆ Procedure

1. Weigh yourself using the bathroom scales.

2. Set up the plank of wood supported at one end using some blocks and at the other using the bathroom scales.

3. Lie on the plank of wood with your feet on the edge of the plank supported by the blocks.

4. Get a team mate to record the reading on the bathroom scales.

5. Produce a force diagram showing all the forces and distances involved in this experiment.

6. Use the principle of moments to determine the position of your centre of gravity. Make sure that you show all calculations clearly.
