

NEATH PORT TALBOT COLLEGE COLEG CASTELL NEDD PORT TALBOT

School of Maths & Science Science Practical

To determine the position of the centre of gravity of a metre rule.

◆ **Aim**

To determine the centre of gravity of a metre rule.

◆ **Introduction**

By taking appropriate measurements of the mass of the rule and by using the principle of moments determine the position of the centre of gravity of a metre rule.

◆ **Safety**

Control Measures

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

◆ Apparatus Required

Metre rule, knife edge, balance, small masses.

◆ Procedure

1. Find the mass of the rule using the balance.
2. Place the metre rule on the knife edge positioned off centre eg at the 45 cm mark.
3. Apply small masses to the rule until the rule balances.
4. Draw a diagram of the rule marking on the positions of all the forces that act.

5. Use the principle of moments to calculate the position of the centre of gravity.
Show all your calculations clearly.

6. Check the position by balancing the rule at this point. Is your calculation correct?
