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Place the force meter below the lever as shown in the diagram and operate the directional valve to try and extend the piston. Note the force meter is the same distance from the pivot point as



Applying Functional Skills

The technical nature of engineering presents many opportunities for students to apply functional skills in English, ICT and mathematics.

In the Levers and Movement lesson, students solve problems with hydraulic cylinders and mechanical levers by reading scales of length, force and pressure and by performing calculations using formulae.

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Operate the directional control valve again, to extend the piston. Note the force meter.

Q1 What force is the piston/lever mechanism generating when being used as a 1st order lever?

N (Enter your answer as a number and press return)

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Move the force meter to be positioned directly above the piston and try to extend the