

Practical Title: Investigate levers

Focus and Principles: An open exploration (designed with one clear constraint – the mass taped in place – to make it appropriate for primary by reducing the variables)

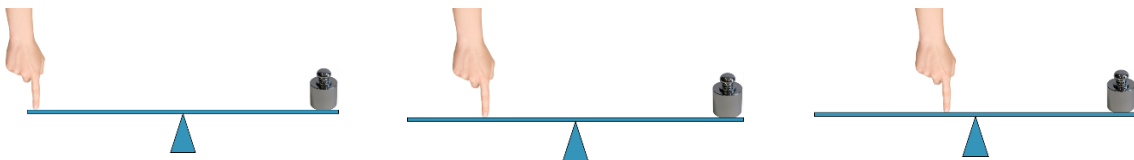
Equipment:

- small wooden planks (approx. 0.75m long and 5 cm across) with 0.5 Kg taped in place at one end
- triangular block of wood to act as a fulcrum – one per plank
- Push or pull Newton meters (you will need to check that the scale on the meter is appropriate e.g. 0-10N)

Suggested pupil group size: 2-4

The key thing is to have the mass taped in place, then you can either:

- Keep the fulcrum in the middle and try pushing down in different places to feel how big a force is needed to lift the weight:



Can you find a pattern in the results? Can you put this into words as a conclusion?

- Or keep your finger in the same place and move the fulcrum along and feel how big a force is needed to lift the weight with the fulcrum in each place



What is the pattern now? Can you put this into words as a conclusion?

Can you think of a conclusion that covers both the examples above?

The force can be measured with a push meter or by tying string onto the plank and pulling down with a pull meter.

Health & Safety:

Teachers always need to risk assess practical activities for their children and defer to their health and safety advisor for the most up-to-date source of health and safety guidance.

This training cannot be relied upon as source of health & safety guidance.