

Simple Machine Challenge 1

Names: _____ Class: _____

General rules:

- You may only use the items in your kit.
- A machine must be between the force and the load.
- No tape allowed!
- Do not share parts
- You may observe other groups and learn from their mistakes!

Challenge: Using the LEGOs in your kit, design a class one lever which will raise a black 'load' block and a 'passenger' as high as you can.

The load must start as close to the table as you can get it.

The force applied must be on the opposite side of the fulcrum from the 'load' at all times.

All measurements should be from the bottom edge of the load.

Task completion rubric:

On the back of this sheet, make a sketch of a class one lever. Label the force, load, and fulcrum.

The team made a class one lever: Yes No

The lever is strong enough to support the load: Yes No

The first lever design raised the load _____ centimeters.

Design change - Trial 2: _____ centimeters

Design change - Trial 3: _____ centimeters

Design change - Trial 4: _____ centimeters