

Simple Machine Challenge Three

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, build a device to raise the heaviest load possible 50 cm from the floor using a wheel and axle.

The pulley device must be stable on the table without adding a force (you are not allowed to hold the base).

The load must be held at 50 cm for at least three seconds.

Total height will be measured from the bottom of the load.

A wheel/axle must be between the force and the load.

Task completion rubric:

On the back of this sheet, draw a sketch of a class one pulley system. Label the force, load, and pulley (wheel/axle).

The team made a pulley system: Yes No

The pulley system is strong enough to support the load: Yes No

The first pulley design raised _____ grams.

The final pulley design raised _____ grams.

Total improvement was _____ grams.