

Name _____

Pulleys and Levers: The Superheroes of Simple Machines!

Short Answer Key

1. A fixed pulley could be used to raise a flag on a flagpole.
2. A movable pulley reduces the force needed by distributing it between the effort applied to the rope and the load being lifted.
3. A block and tackle system consists of multiple pulleys, both fixed and movable, working together to multiply mechanical advantage. As you pull the rope, each pulley reduces the force required to lift the load.
4. A wheelbarrow is an example of a second-class lever. It makes tasks easier by allowing you to lift a load in the middle of the lever, reducing the force needed to lift it.
5. The mechanical advantage of a third-class lever is that it changes the direction of force, making tasks easier. In contrast, a first-class lever can either change the direction of force or reduce the force needed, depending on its configuration.

