



a WOW Lab

BLUEPRINT

Pulleys and Mechanical Advantage

Glossary

compound pulley system - a combination of a fixed and a movable pulley system.

fixed pulley - a pulley that has an axle that is fixed to an anchor and is used to change the direction of force. A fixed pulley creates a mechanical advantage of one, which means the force is equal on both sides of the pulley.

force - an influence that causes an object to change its rate of motion.

friction - the resistance to motion on a surface.

input - energy or power put into a system or expended in its operation to achieve an output result.

load - a mass or weight that is supported.

mechanical advantage - the ratio of the output force produced by a machine to the applied input force.

movable pulley - a pulley that has an axle that is free to move in space. A movable pulley multiplies forces and creates a mechanical advantage of two.

output - the act or process of producing.

pulley - a simple machine consisting of a wheel with a grooved rim, in which a pulled rope or chain can run to change the direction of the pull and lift the load.