

Max's Magnificent Mechanisms: How Things Move!

Master the Motion: Become a Mechanical Engineer!

- A lever uses a rigid bar resting on a pivot to lift a heavy load with less effort.
- Pulleys use a grooved wheel and a rope to change the direction of a force, making it easier to lift objects high up.
- Gears are toothed wheels that mesh together; when one turns, it forces the other to rotate, often changing the speed or direction of motion.
- Mechanical advantage is the term used when a machine helps us move a load using less force than if we lifted it by hand.
- Every mechanism requires an input force to create an output movement, like pushing a handle to open a gate.

Did you know? Did you know? The Ancient Greeks used a complex system of gears called the Antikythera mechanism to track the positions of the sun, moon, and planets! It is often described as the world's first analogue computer.

Key vocabulary: Mechanism · Lever · Pulley · Gear · Pivot · Force · Load · Effort