

Simple Machines

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Simple machines are all around you, and if you look closely, you use these in your everyday life. A simple machine is something that you use to make work easier. You do not use as much force when you use simple machines.

There are six types of simple machines that people use. A pulley is one or more wheels with a rope around it for lifting things. A wedge is an inclined plane with two sloped sides. A screw is an inclined plane that is wrapped around a center rod. A wheel and axle is a wheel with a rod attached to the center of it. A lever is a bar that moves on a fulcrum, which is the center of a point of a lever. An inclined plane has a sloped side that can help an object move up or down.

A pulley's main use is to lift things, or to pull things in a desired direction. Raising a flag, elevators, blinds on a window, and a crane that you might find at a construction site are all examples of a pulley at work.

Wedges can split an object, or it can give an outward push to a material. Examples of a wedge are a sharp knife, an axe, a fork, a nail, and a doorstop. A nail is used to drive into a piece of wood to hold its place and to bond two objects together. An axe drives one piece of something into two pieces. A doorstop acts as a wedge when a door can no longer move in one direction after being stopped.

Screws can hold objects together, or it can move objects. Any lid that locks into place by spiraling is a screw. When you screw in a light bulb, the light bulb will act as a screw. It will not just fall out of the socket when put into position. It locks into place.

A wheel and axle turns things. A doorknob is something that you turn; a steering wheel is something that you turn. A bicycle wheel is something that you turn. Each has a sort of wheel that is on a rod that allows it to rotate.

Levers can lift or open objects. When you use a crowbar, you are using a lever. When you are using a shovel to dig, you are using a lever. A lever has to be driven in first, then lifted to open or to move an object.

Inclined planes move objects to a higher position than from where they had started. A wheelchair ramp gives someone that is in a wheelchair an opportunity to move up a hill and to get the chair and the person to a higher location. A playground slide is an inclined plane because a child can start at a high direction and move to a lower direction.

Simple machines are everywhere around us, and there are many uses for them. From the many examples listed, simple machines make work easier.