

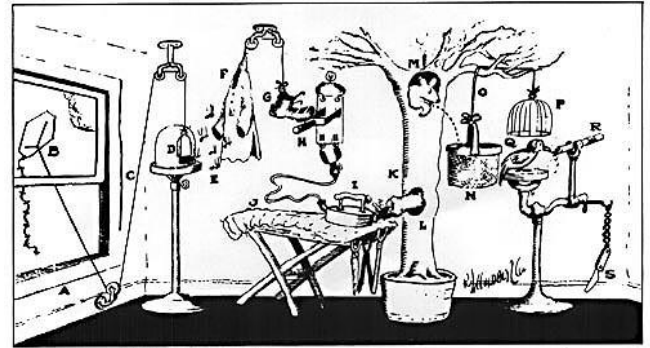
# Simple Machines Study Guide

SOL 3.2

**Simple machines**- tools that make work easier.

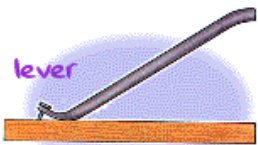
Simple machines can help us:

1. lift a heavy weight
2. move a heavy object over a distance
3. push things apart, changing the direction of a force
4. hold an object together



Pencil Sharpener RUBE GOLDBERG (tm) RGI 036

The six simple machines are:



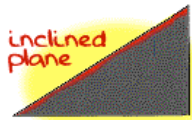
The **lever** is a stiff bar that moves about a fixed point (fulcrum). It is a simple machine that is used to push, pull, or lift things.

Examples include a seesaw, crowbar, and shovel.



The **wheel and axle** consists of a rod attached to a wheel. A wheel and axle makes it easier to move or turn things.

Examples include roller skates, and a doorknob.



The **inclined plane** is a flat surface that is raised so one end is higher than the other. The inclined plane helps move heavy objects up or down.

An example is a ramp.



The **screw** is an inclined plane wrapped around a cylinder or cone. A common use of the screw is to hold objects together.

Examples include a jar lid and wood screw.



The **wedge** is wide at one end and pointed at the other to help cut or split other objects.

Examples include a knife or ax.



The **pulley** is a wheel that has a rope wrapped around it. Pulleys can be used to lift heavy objects by changing the direction or amount of the force.

Examples include a flagpole.



A **compound machine** is a combination of two or more simple machines.

Examples include scissors, wheelbarrow, and bicycle.

