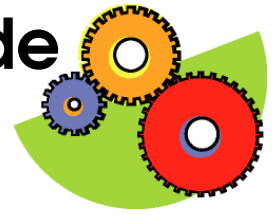


Simple Machines Study Guide

SOL 3.2

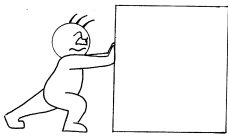


Energy

*Ability to do work is energy.

*Use simple machines to make our work easier.

Force



***Force** is the push or pull that is placed on an object.

*We measure force in Newtons.

*When you push or pull something, you apply a force to it.

Friction



***Friction** is a rubbing force.

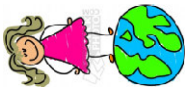
*Friction slows all things to a stop.

Example:

A ball will roll with LESS friction on hard surface than on grass.



Gravity

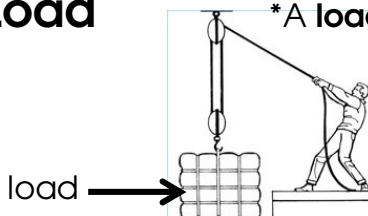


***Gravity** attracts two objects together.

*Gravity pulls objects to the ground.

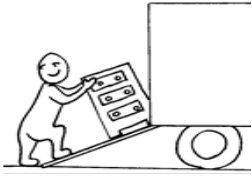
Load

*A **load** is the object being pushed or lifted.



There are six different simple machines that help us do work easier.

Inclined Plane



- *An inclined plane is a sloping surface.
- *This tool helps in pushing or pulling a load.
- *It helps move things up and down easier.

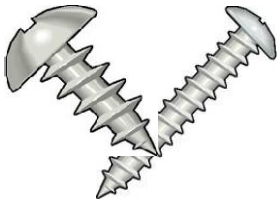
Wedge



- *A wedge is two inclined planes with bases together.
- *This tool helps us push or move things apart.
- *It is used for **cutting** and **splitting**.

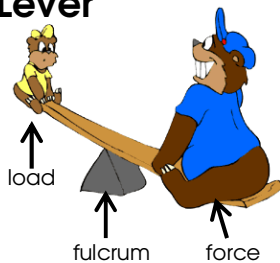


Screw

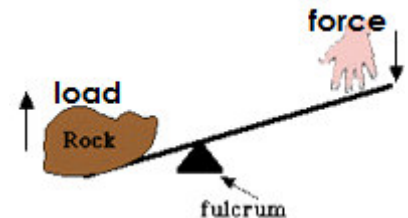


- *A screw is an inclined plane that moves around and around as it moved forward, upward, or downward.
- *This tool help us **hold** things together.
- *A jar lid is also a screw!

Lever



- *A lever is a stick or bar that has three parts.
- *fulcrum
- *load
- *effort



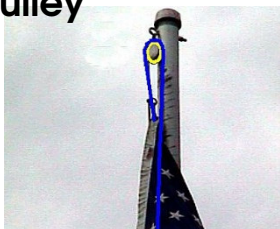
- *This tool helps you **lift** heavy loads.

Wheel and Axle



- *A **wheel and axle** is a wheel with a bar through it.
- *This tool helps move people and things.
- *It makes moving things easier.

Pulley



- *A **pulley** is a wheel with a rope over it.
- *This tool helps us move things up and down / back and forth.
- *There are 2 kinds of pulleys (fixed and movable).

