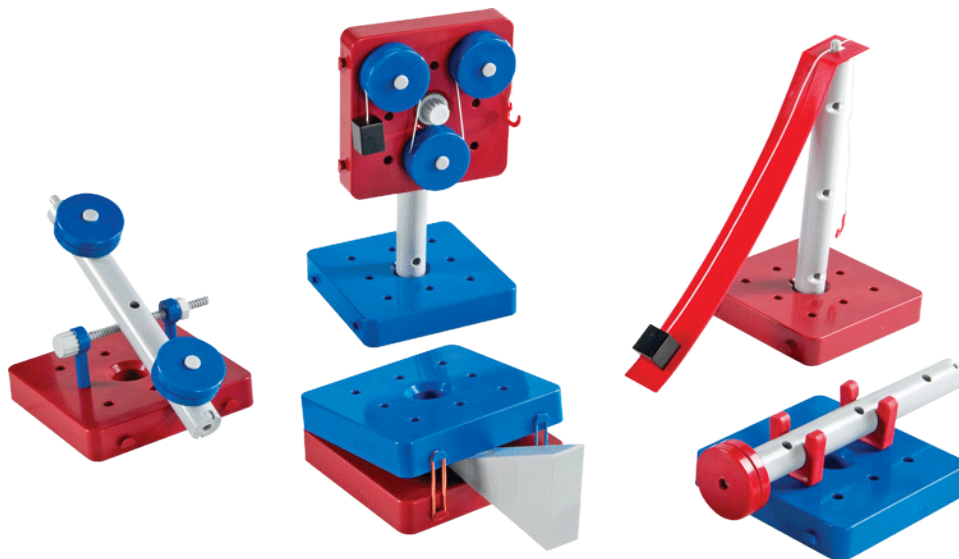


Simple Machines



Name: _____



What is a lever?

A lever is a simple machine.

It is a stiff bar or board.

The bar rotates on a fulcrum.

A lever is used for lifting.

How does it make things easier for us?

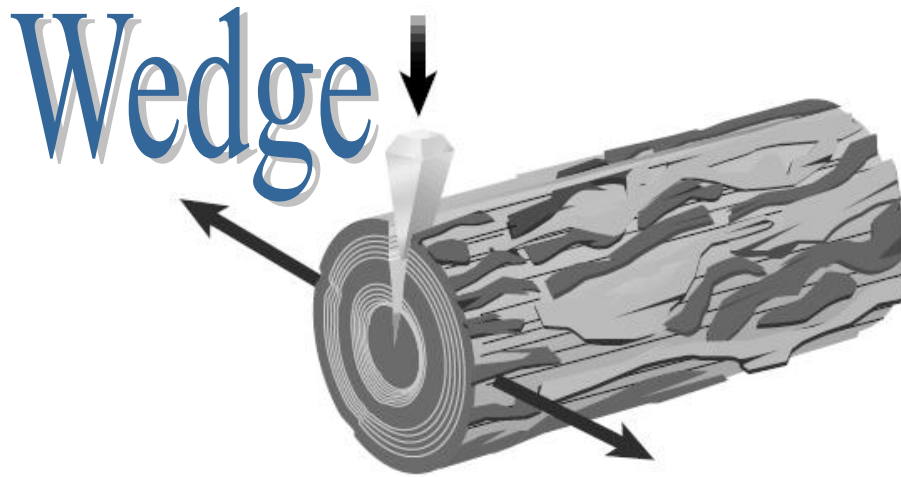
A lever is used to lift or move objects.

It uses force and distance to help make work easier.

You hold the lever at one spot, and a force is made at another spot.

Here are some examples:





What is a wedge?

A wedge is a simple machine.

A wedge starts out thick at one end and gets thin at the other.

How does it make things easier for us?

A wedge can be used to lift things.

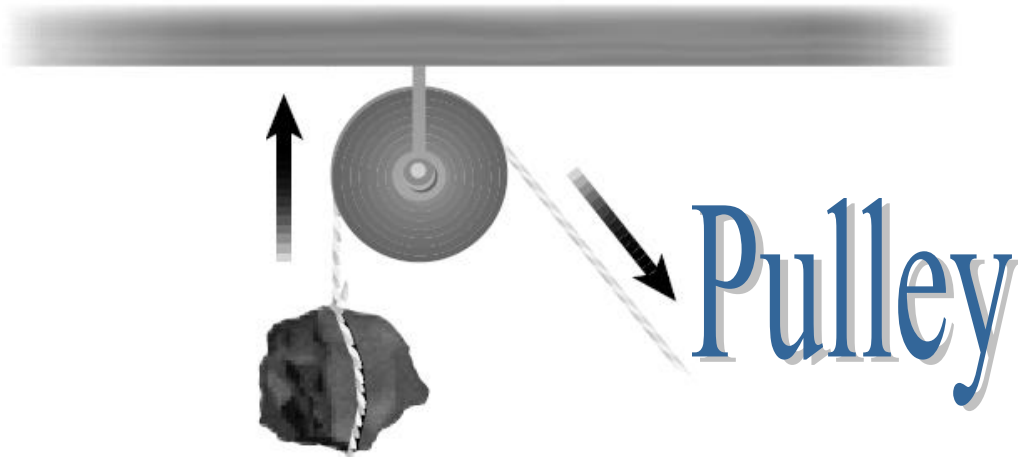
A wedge can be used to push things apart.

A wedge can be used to poke holes in things.

A wedge can be used to split things.

Here are some examples:





What is a pulley?

A pulley is a simple machine.

A pulley is a small wheel with a grooved rim around it that holds a rope or a cord.

How does it make things easier for us?

Pulleys are used to lift heavy things.

Pulleys can help us move things that are too far away to lift.

A pulley can help us lift things that are too heavy for us.

Here are some examples:





What is a screw?

A screw is a simple machine.

A screw has a ridge called a thread that winds evenly around it.

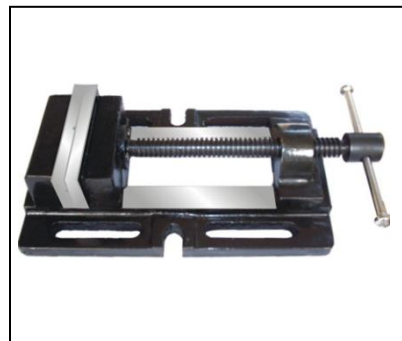
There are many different types of screw, not just the ones you use with a screwdriver.

How does it make things easier for us?

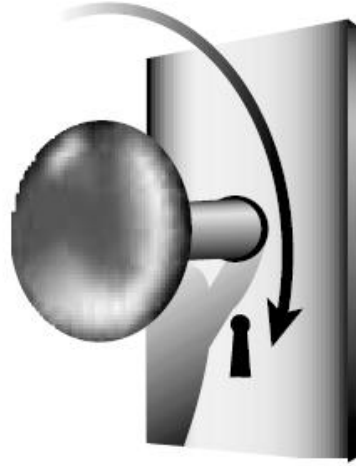
Screws can help hold things together.

Screws can help things move.

Here are some examples:



Wheel and Axle



What is a wheel and axle?

A wheel and axle is a simple machine.

A wheel is attached to a rod or bar called an axle.

When one of them turns, the other turns.

How does it make things easier for us?

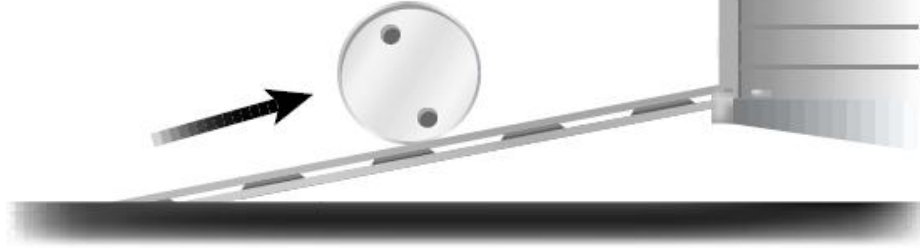
A wheel and axle is used to move things.

A wheel and axle can change the power, speed or direction of movement.

Here are some examples:



Inclined Plane



What is an inclined plane?

An inclined plane is a simple machine.

One end of a board is raised above the other.

How does it make things easier for us?

An inclined plane is used to move or lift things.

An inclined plane lets us lift things with less effort.

An inclined plane lets us push things up instead of lifting them.

Here are some examples:



How Simple Machines Affect Our Lives

Some simple machines add enjoyment to our lives (e.g., the wheel and axle on devices such as skateboards, the lever on devices such as teeter totters and the keys on a piano). However, other simple machines are used to make life easier (e.g., the wheel and axle of a car). The use of simple machines to make life easier has created a more sedentary lifestyle (meaning a lifestyle with little or no physical activity) that has created health problems for many humans.

Simple machines can also impact the environment, which also affects us. The impact of simple machines on the environment can be both positive and negative. In the space below you are to describe how you think simple machines can affect the environment in both a positive and a negative way.

Negative

Factories that make simple machines take a lot of energy.

Factories that make simple machines cause pollution.

When a simple machine is broken it is sent to the dump.

It makes it easier to cut down trees and destroy nature.

Positive

A simple machine can be made out of random objects that would otherwise be garbage.

Do not need energy that causes pollution when using them (gas or electricity).