

FORCES AND MACHINES

How do Objects Move?

Many objects can be moved:



Up, down, to the left, and to the right.

What is



A force is

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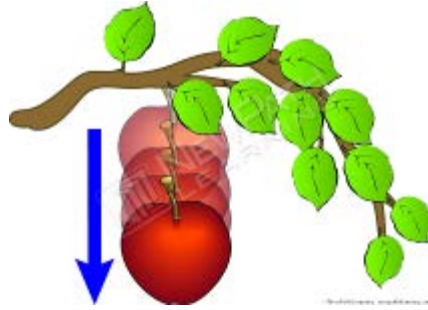
Example:

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Forces and Change

Gravity is a force that pulls things down to the ground.



When you drop something (like a pencil), gravity forces it to the ground.



A hard push
Less force

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What is

Speed is how fast or how slow something moves.



In order to move fast you need more force.

**Let's check what we have learned so far:
What is a force?**

Off to Work We Go...

Work is when you use force upon an object causing the object to move.



If you do not move an object, no matter how hard you push or pull, NO work is being done.

Simple machines
work for you



make less

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Simple machines often help move loads from one place to another. A **load** is something that is carried, moved, or lifted.

*Let's check what we have learned so far:
What is work?*

Simple Machines

There are many different kinds of **simple machines**.

An **inclined plane** is a simple machine that connects a higher area to a lower area. The inclined plane allows you to move an object up or down by rolling or sliding it without lifting the object directly.



A ramp is an example of an **inclined plane**.

A wedge

A wedge



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A **screw** holds things together.



A **lever** is a simple machine that can push down on one side to raise an object on the other side. A **see saw** is an example of a lever.



A **wheel and axle** is a simple machine used to move things. A wheelbarrow has a wheel and axle so we can move it easily.



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A **pulley** is a simple machine that is used to lift things. We use a pulley to raise and lower a flag on a flagpole.



***Let's check what we have learned so far:
Name one example of a simple machine.***