



Science Virtual Learning

8th Grade Science
Simple Machines

May 6, 2020



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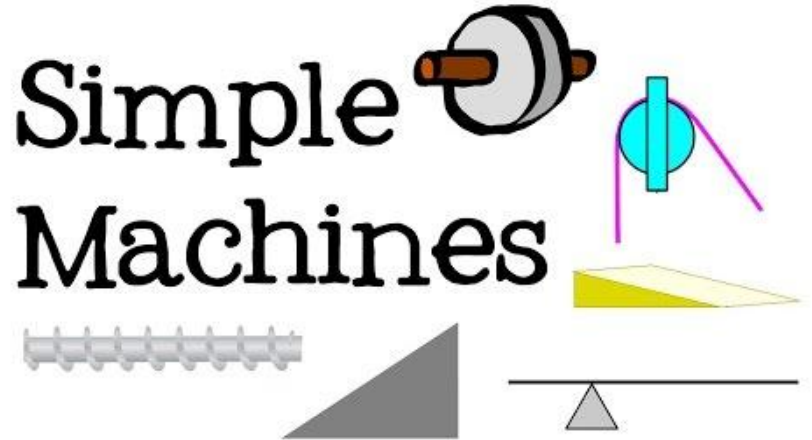
Lesson: May 6, 2020

Objective/Learning Target:

I can identify the types of simple machines and am able to give an example of each.

Bellwork

1. Use [this Quizziz](#) (click on link to play) to see what you already know about simple machines.
2. Watch this video to learn about simple machines.



Today

On your own sheet of paper make a table like the one below. You will be taking notes over what you will be reading over simple machines on the next few slides.

	Lever	Wheel and axle	pulley	Inclined planes	wedge	screw
What does it do?						
Example from article						
Example from your life						

There are 6 basic types of simple machines:

Lever

The lever is made up of a straight rigid object like a board or a bar which pivots on a turning point called a fulcrum. Levers make work easier by using leverage which multiplies the force. When you use a lever, you move a smaller force a longer distance in order to lift a load a short distance. Examples of levers include a seesaw, pliers, crowbars, and tweezers.



Today

Wheel and axle

The wheel and axle is another simple machine. It uses a wheel with a rod attached in the middle as an axle to help it to lift or move loads. In some cases this machine works like a lever to multiply force (like with a doorknob or a fishing reel). In other cases it is used to move objects easier such as with wheels on a bicycle.



Today

Pulley

A pulley is a type of simple machine that uses a wheel with a groove in it and a rope. The rope fits into the groove and one end of the rope goes around the load. You pull on the other end. The pulley helps you to move the load or change direction of the force. Some examples of pulleys include cranes, flag poles, and window blinds.



Today

Inclined plane

An inclined plane is a flat surface with one end higher than the other. This allows for heavy objects to slide up to a higher point rather than be lifted. It is generally easier to slide something than to lift it. Examples of inclined planes include slides and ramps.

Wedge

If you put two inclined planes back to back, you get a wedge. A wedge is a simple machine used to push two objects apart. Examples of the wedge include knives, chisels, and axes.



Today

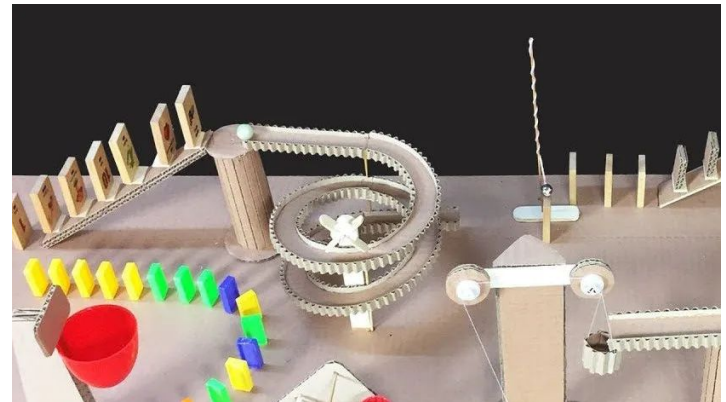
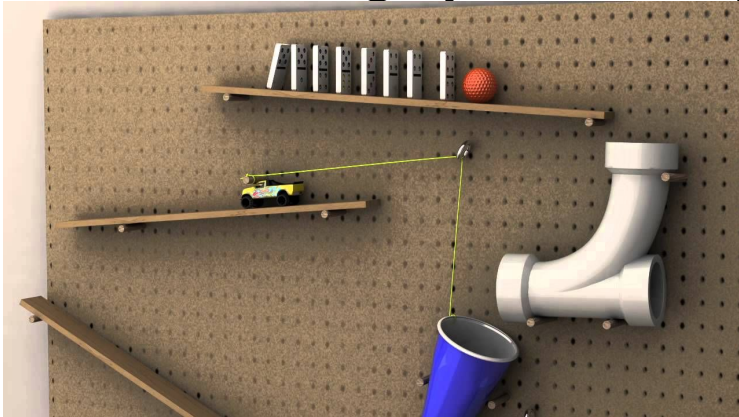
Screw

A screw is a special kind of inclined plane. It's basically an inclined plane wrapped around a pole. Screws can be used to lift things or to hold them together. Examples of the screw simple machine include swivel chairs, jar lids, and, of course, screws.

Today

1. The Rube Goldberg Experiment

- You are going to design a complex contraption to achieve a simple task. Use anything in your house to make this.
- An example of this would be building a tube contraption through your house just to get the ball into the cup...



Review

1. On a sheet of paper, answer [these questions](#) about simple machines. Then, check your **answers** with [this link](#).
2. Take this [quiz](#) to see what you remember about simple machines