

Kinetic Cars

STEM TO-GO

DRIVING QUESTION: HOW DO SIX SIMPLE MACHINES MAKE OUR LIVES EASIER?

Humans are inventors! We are constantly finding ways to make work easier for us. Many of the most complicated machines, like cars, dishwashers, and refrigerators, are combinations of 6 simple machines that have been around for thousands of years. How many examples of the simple machines you can find in your life: Lever, Pulley, Wheel and Axle, Inclined Plane, Wedge, and Screw?

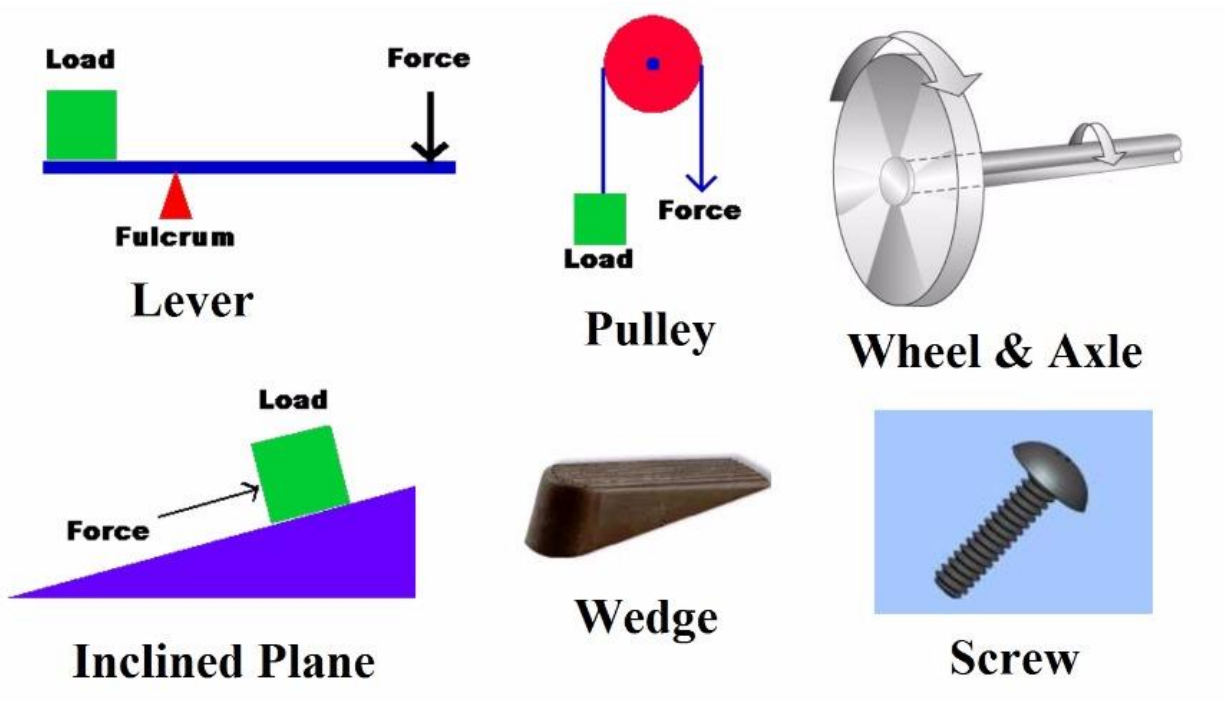


Image from: <http://www.justscience.in/wp-content/uploads/2017/05/pjimage-1-2.jpg>

Simple Machine Scavenger Hunt: Find the simple machines in your home

Type of Machine	Examples	Machines in My Life
Lever	Light Switch, remote control buttons, refrigerator door	
Pulley	Curtain or blind cords	
Wheel and Axle	Screwdriver, toilet paper dispenser, paper towel roll	
Inclined Plane	Staircase, steps, ramp	
Wedge	Knife, Comb	
Screw	Door and picture frames, shampoo bottle, peanut butter jar lid	

What is a **compound machine**? A compound machine is made of many simple machines that work together. Here are some examples.

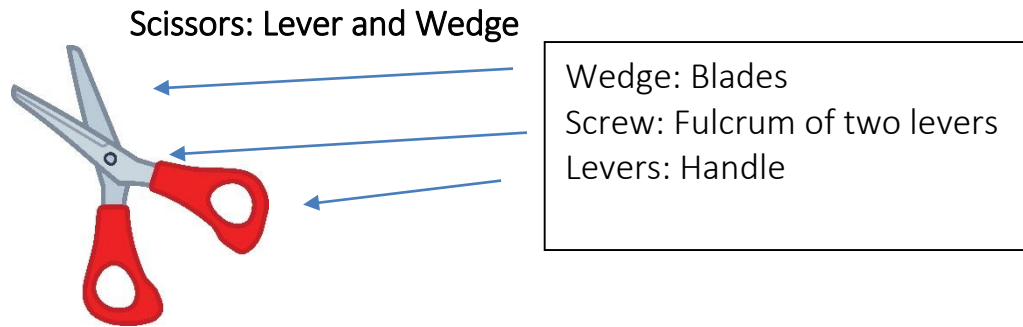


Image from: <https://free.clipartof.com/1702-Free-Clipart-Of-A-Pair-Of-Scissors.jpg>

Challenge: How many different Simple Machines can you find in this bicycle?



Image from <https://images.pexels.com/photos/326678/pexels-photo-26678.jpeg?auto=compress&cs=tinysrgb&dpr=2&h=650&w=940>

Possible answers to the bicycle: Wheels are wheel and axle. Chain is a pulley, Pedals are levers, Gear shifters are levers, Brakes are wedges, levers, and pulleys, the slope of the handlebars is an inclined plane. There are many screws found throughout the frame.

Adapted from:

https://www.teachengineering.org/content/cub/_lessons/cub_simple/cub_simple_lesson01_scavhuntworksheetanswers.pdf