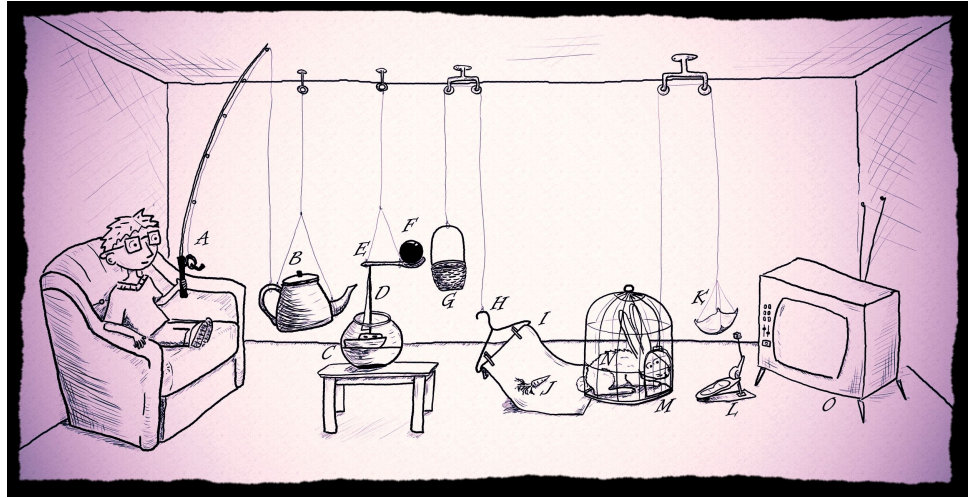


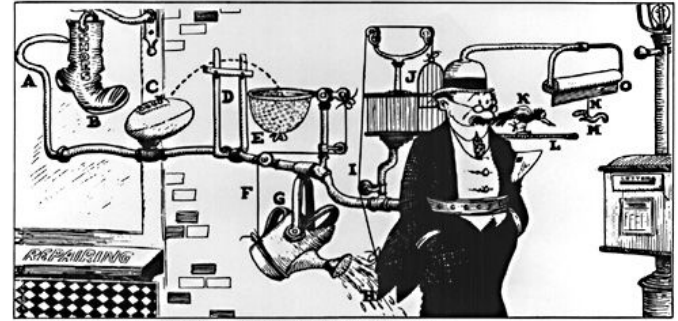
# RUBE GOLDBERG

Simple Machines



# Rube Goldberg

- ★ Cartoonist
- ★ Author
- ★ Sculptor
- ★ Engineer
- ★ Artist
- ★ Inventor

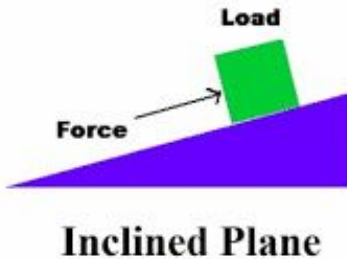
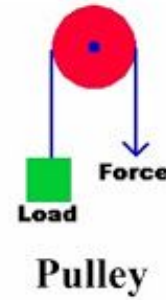
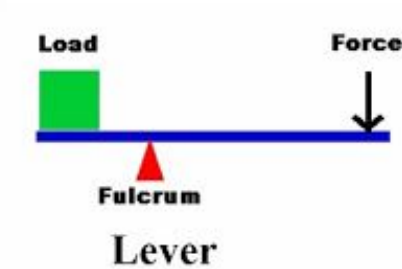


Keep You From Forgetting To Mail Your Wife's Letter RUBE GOLDBERG (tm) RGI 049

- ★ Famous for his popular cartoons depicting complicated gadgets performing simple tasks in indirect, difficult ways.
  - Cartoons led to expression “Rube Goldberg Machines” to describe similar gadgets and processes

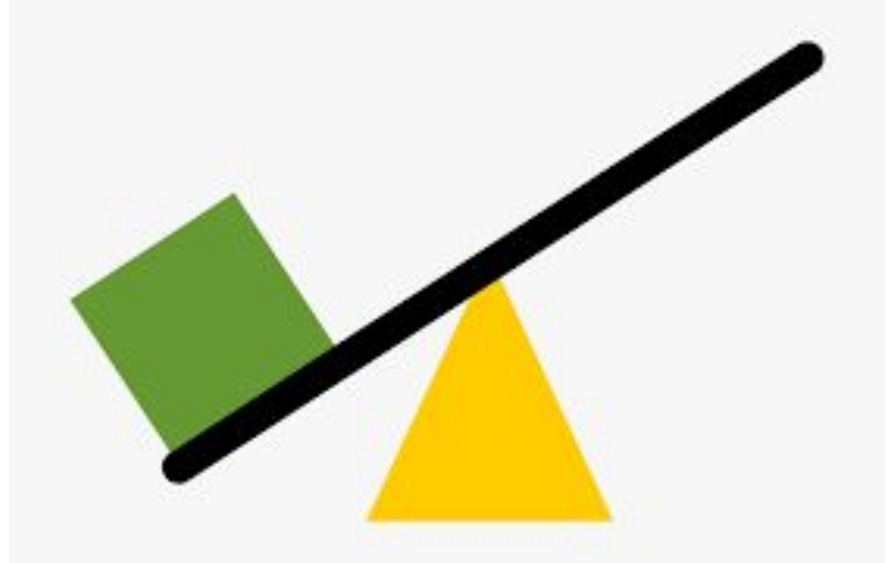
# Review of Six Simple Machines

- ★ Lever
- ★ Pulley
- ★ Wedge
- ★ Wheel and Axle
- ★ Screw
- ★ Inclined Plane



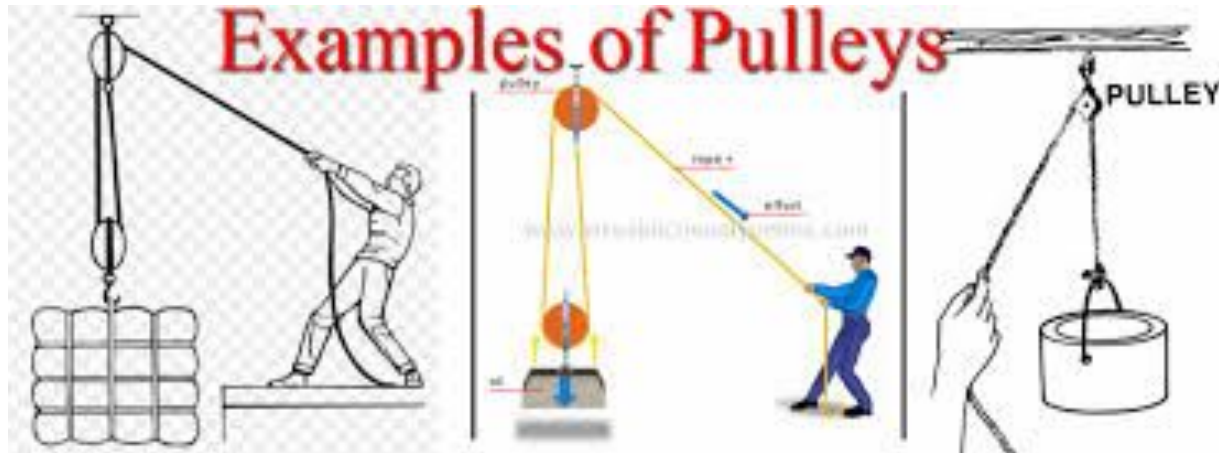
# Lever

- ★ Consists of a long beam and a fulcrum (or a pivot point)
- ★ Used to transfer a force to a load and will usually provide a mechanical advantage
- ★ Examples: Scissors / Tweezers / Tongs



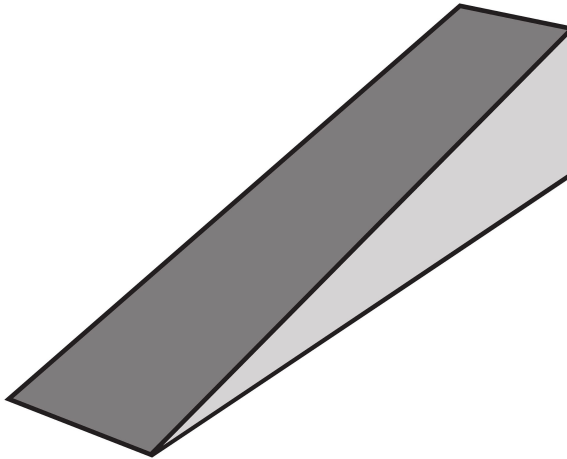
# Pulley

- ★ A wheel with a grooved rim which a cord passes through
- ★ It is used to change the direction of a force applied to the cord and is usually used to raise heavy weights.
- ★ Example: Elevator / Window Blinds / Rock Climbing Belay System



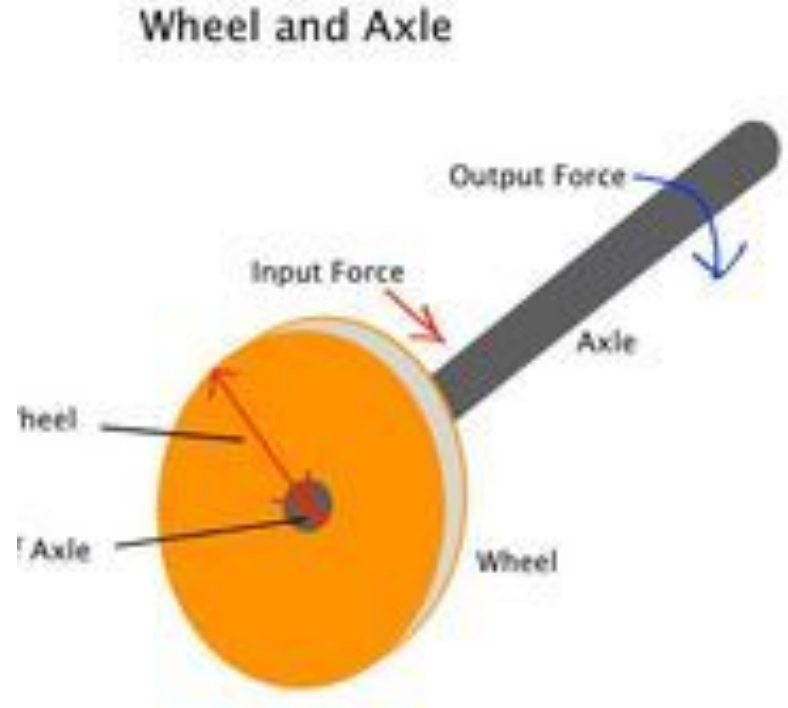
# Wedge

- ★ Moving inclined planes
- ★ Can be driven under a load to help lift the object
- ★ Can be driven into a load to split or separate an object
- ★ Examples: Door Stop / Axe / Knife



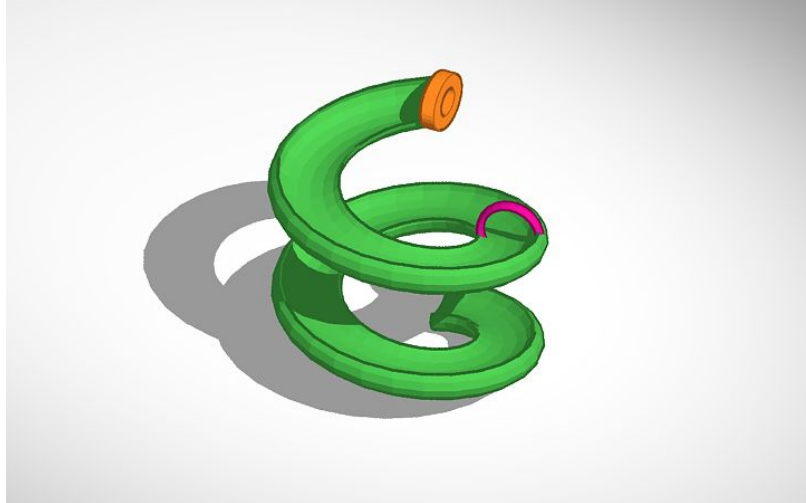
# Wheel and Axle

- ★ Simple machine consisting of an axle which a wheel is fastened to
- ★ Parts rotate together in which one force is transferred to another
- ★ A hinge or bearing supports the axle, allowing rotation
- ★ Examples: Car / Bicycle / Wheelbarrow / Wagon



# Screw

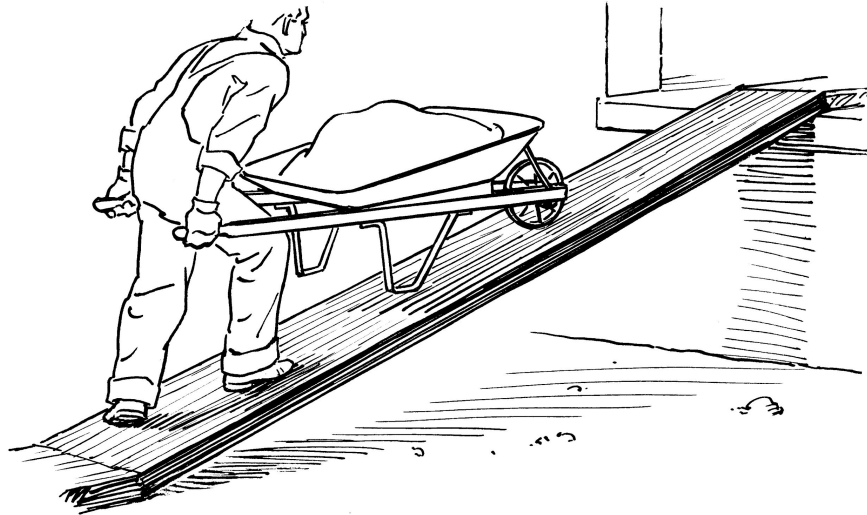
- ★ Long inclined plane wrapped around a cylinder
- ★ Can be used to lift extremely heavy objects
  - The closer the threads are the greater the mechanical advantage
- ★ Examples: Jar Lid / Screw / Light Bulb





# Inclined Plane

- ★ Flat surface raised at an angle, similar to a ramp
- ★ Allows a heavier object to be lifted than just trying to lift it straight up
- ★ Examples: Slide / Ramp / Wheelchair Ramp



DIRECTIONS: Answer the following questions in Kami (using a text box) and save. When finished make sure you "Turn In" in Google Classroom. If you are printing this out, you need to take a picture of it, and send it to my email ([ewilliams@medinacsd.org](mailto:ewilliams@medinacsd.org)). The answers can be found by going through the Google Slide Presentation.

1. Rube Goldberg was a cartoonist who was born in 1883, and died in 1970. What other jobs did Rube Goldberg have?
2. What are the six simple machines?
3. What is a Pulley?
4. What is a Lever?
5. What is an Inclined Plane?
6. What is a Wheel and Axle?
7. What is a Screw?
8. What is a Wedge?

**Directions:** Watch the YouTube video from the link listed below, and answer the questions that go along with the video.

<https://www.youtube.com/watch?v=htJ8jV-bWIs>

1. What is the goal of this Rube Goldberg Machine?
2. What are the 2 simple machines that are NOT used in this project?
3. What simple machine could have he possibly used instead of using the maze for the marble to travel downward?
4. Was his Rube Goldberg machine successful?
5. What could have he done differently for his Rube Goldberg Machine?

**Directions:** Watch the YouTube video from the link listed below, and answer the questions that go along with the video.

<https://www.youtube.com/watch?v=VunNpfdw68g>

1. What is the first Simple Machine in this Rube Goldberg?
2. What Simple Machine does the first Simple Machine Activate?
3. What are the 3rd and 4th Simple Machines that he uses?
4. Does the Lever or the Wedge Pop the Balloon?
5. What could have he done differently in his design?