



Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences –particularly students of color and girls – by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning. STEM@Home makes activities around science, technology, engineering, and math accessible and fun to do at home. This STEMbook activity, resources, and more are available at www.projectexploration.org/stemathome.

In this activity, you will:

Draw a simple machine cartoon.



Supplies Required:

An example of a Rube Goldberg cartoon
Any size paper
Pencils, markers or crayons

Video

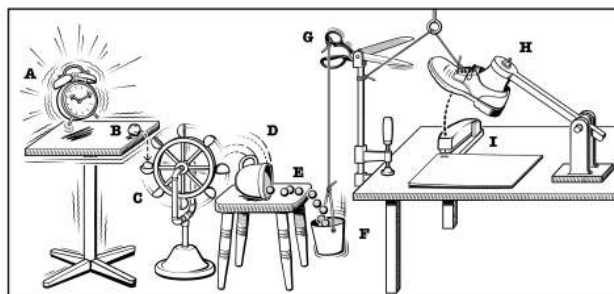
Who was Rube Goldberg? Watch to learn more about him: <https://tinyurl.com/tj5243x>

What is a machine? <https://tinyurl.com/t3mehmj>

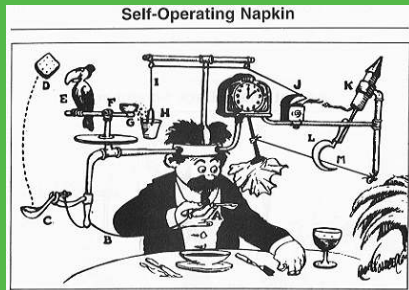
Overview

A Rube Goldberg machine, named after American cartoonist Rube Goldberg, is a machine intentionally designed to perform a simple task in an indirect and overly complicated way. Usually, these machines consist of a series of simple unrelated devices; the action of each triggers the initiation of the next, eventually resulting in achieving a stated goal.

According to the Webster's New World Dictionary, a Rube Goldberg Machine is "a comically involved, complicated invention, laboriously contrived to perform a simple operation" Humor and a narrative are what separate a Rube Goldberg machine from a chain-reaction machine. Each of Rube's cartoons told a story and his entire goal was to get you to laugh.



Instructions



1. Watch the video and learn how machines work and what are the six simple machines.
2. Decide on a simple chore or task and devise a "Rube Goldberg" way to accomplish this activity using at least five simple machines.
3. Draw a cartoon of the machine labeling each step and making sure to include humorous elements.
4. Gather materials around your home and build out your design! The crazier it is, the better! Can you build a Rube Goldberg machine with 10 unique steps?

Additional Resources

Think About It! What was the goal of your machine? Did you accomplish it? How many trials did you do before you successfully completed the task? What simple machines did you incorporate in your design?

1. The best Rube Goldberg machines: <https://tinyurl.com/y856jh57>
2. How to make a Rube Goldberg machine: <https://tinyurl.com/yc6bmfj6>

Share It Out

Share on social media: Take a picture of your drawing and record a video of your Rube Goldberg machine in action. Post the results online using the hashtags:

#RGMachineChallenge
#RubeGoldberg
#ProjectExploration
#StemAtHome

Tag a friend and challenge them to make a machine too!

Share via PE's website: Students who complete STEM@home activities and share what they learned with the PE team via our website will earn points which can be traded in for cash prizes at the Explore Store. Your project number is 412. Learn more at www.projectexploration.org/explore-store

Join PE's character contest!

Design a STEM character who will lead kids through activities and be featured on our website and in our STEMbooks. Cash prizes will be awarded to the top 3 finalists. Learn more at: www.projectexploration.org/character-contest.



Call or text us for help: 312-772-6634



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