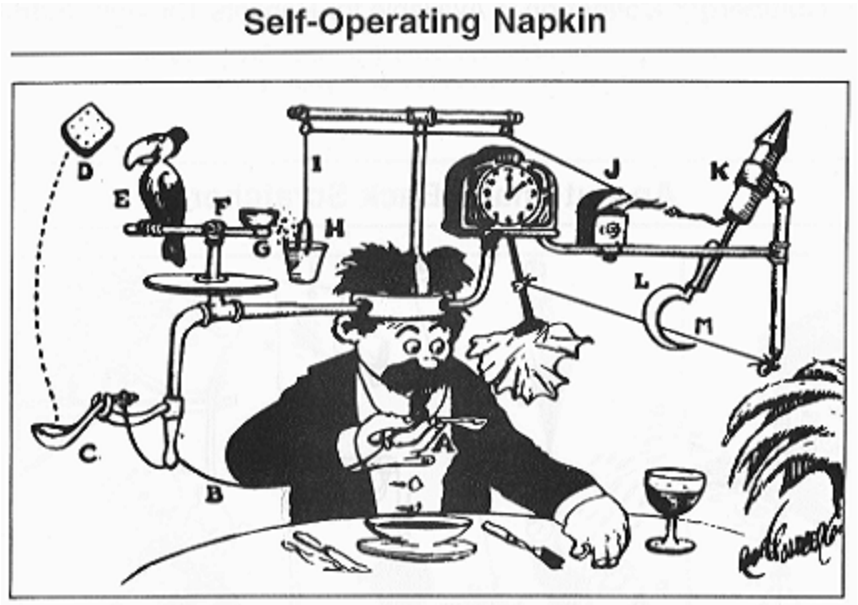
Rube Goldberg Machine Extra Credit – 30 points possible **(this is an optional activity)**



Objective – Use what you know about physics to build a rube Goldberg machine (overly complicated process to accomplish a simple task)

This is one built in a warehouse
https://www.youtube.com/watch?v=X3vXwWfEfGM&feature=youtu.be

This is another one but not on such a large scale
https://www.youtube.com/watch?v=rX7yCnbp9bQ

Here is another one https://youtu.be/nORRgU8sGdE

Background: *Rube Goldberg* was a cartoonist who depicted complicated machines to solve simple problems. Another example is the “mouse trap game”.

Your machine needs to complete one of the following tasks

For 30 extra credit lab points pick ONE of the following tasks for your machine to complete:

Apply a band-aid to a doll

Open an umbrella

Erase a chalkboard

Zip a zipper

Hammer a nail

Inflate a balloon and pop it

Assemble a hamburger

Squeeze the juice from an orange

Shred 10 sheets of paper

Raise a flag

Set up a golf tee and ball

For 15 extra credit points build a machine to complete one of the following tasks

Put a bottle in a bin

Water a plant

Shut a door

Turn something on or off

Ring a bell

Break an egg

Sort coins

Make a ball go in a hole

Pop a balloon

Rules

1. You need to use at least 4 simple machines
2. Minimum of 4 steps, no maximum number of steps
3. No human/living thing help after the chain reaction starts
4. Run for no more than 90 seconds
5. No hazardous materials or explosives
6. Be safe
7. You cannot use any electric/gas powered/ solar powered motors, unless one of your machines turns it on.
8. The completed project must include a video of you starting the machine and the project completing the task
9. A detailed diagram of the machine with the 4 simple machines labeled
10. You must build what you design

If you have any questions about the rules, please let me know