

The TMS Rube Goldberg Machine™ Project

The Quick Version:

1. We are building a big Rube Goldberg Machine™ from recycled materials.
2. In order to participate you must complete a few assignments for Dr. J.

The goal of this project is to construct a large Rube Goldberg Machine™ (TGM) using only recycled materials.

TGM Team meetings when we build the machine will consist of music and food and drink. It's going to be a lot of fun. If I'm going to provide food and fun for these meetings, I need to know the students are committed.

So . . .

Before you can begin to contribute, you must do some things on your own. Once you have completed the portfolio below, you may contribute to our project in any of the following ways:

- Bring in materials to be used in the building of the machine.
- Draw designs for the machine.
- Help Dr. Jackson construct and assemble the machine.
- Video the machine in action to determine revisions.

All designing and planning can be done individually or in groups at any time. The actual construction and building will only occur on predetermined days. We will have a build meeting at least once a month after school; these will be announced during morning announcements and placed on Dr. Jackson's Padlet.

Rube Goldberg Machine™ Portfolio

You must demonstrate to me an understanding of the concepts below before you can join our TGM team.

Simply get a TGM file folder from the media center, write your first and last name on it, and fill it with the items below.

1. A handwritten list of the 6 Simple Machines with a definition and example of each one. No typing. No copying and pasting from the internet. Write it. But be neat.
2. A 2-3 sentence explanation of *Mechanical Advantage* in your own words.
3. A definition and example of Newton's First Law of Motion. Handwritten. No copying and pasting.
4. A definition and example of Newton's Second Law of Motion. Handwritten. No copying and pasting.
5. A definition and example of Newton's Third Law of Motion. Handwritten. No copying and pasting.
6. An original drawing of a small Goldberg Machine™ consisting of at least 3 simple machines.

Here are some websites you may find helpful.

http://idahoptv.org/sciencetrek/topics/simple_machines/facts.cfm

<https://www.physicsclassroom.com/Physics-Tutorial/Newton-s-Laws>

<http://www.pas.rochester.edu/~blackman/ast104/newton3laws16.html>

Tentative schedule of "build" meetings:

October 16, 18, 23, 25, November 6, 15, 29, December 11, 13