Name_____ Period_____ Final Score ____/30

Rube – Goldberg Assignment

Due Date: A-Day Wednesday, February 15th
B-Day Thursday, February 16th

Background: Rube Goldberg was a cartoonist (New York Post) that became famous for drawing very complicated machines that performed very simple tasks. A typical Rube Goldberg device could not perform a job as straightforward as turning on a faucet without the assistance of pulleys, fulcrums, mousetraps, cables, and gears. By the time the cartoonist retired, the term "Rube Goldbergian" had been enshrined in the language to describe anything characterized by excess complexity.

Your Unit Project is to design and build a Rube-Goldberg Machine that uses multiple steps to complete a simple task. There will be prizes for best machine in each class as well as the grand prize for the best machine out of all of Mrs. Renstrom's classes.

1) Machine Construction

Your machine must have a minimum of 8 energy transfers

The final step must accomplish one of the following tasks:

*** Ring a bell * Break a pencil * Pop a balloon * Roll a pair of dice**

Students may work alone or with ONE other student in any of Mrs. Renstrom's science classes.

All projects are due by the deadline. No late projects will be accepted.

Make a video that shows your **complete** Rube-Goldberg machine in action. It must show all 8 transfers. The video can be no longer than 3 minutes in length.

Email the video to alison.renstrom@washk12.org. or upload the video to youtube and email the link to the same address. **All videos must be sent by midnight of the due date.**

YOU MUST BE IN THE VIDEO (Or your voice). We will be watching each video in class, so make it appropriate.

No animals or people can be part of the Rube Goldberg machine.

If you have no way of making a video, you can make a poster. Your poster must have 8 photos showing the 8 different transfers. At least one picture must include you. Poster projects are not eligible for prizes nor will they be shown in class.

Submitted Video or Poster _____ /15

2) Written Assignment: (each person must turn in **their own** written assignment.)

Part 1. Draw a sketch of your Rube Goldberg Machine that shows the step-by-step operation of your machine. Make it neat and easy to follow. Label each energy transfer with a number (1-8). These numbers should be the same numbers used in the explanations of energy transfers on the next page. _____/8 points

Part 2. **Explanation of Energy Transfers:** Explain each energy transfer. (Example: A human pushes the ball (transfer 1), the balls knocks down the dominos (transfer 2), a hammer breaks a pencil (transfer 3), etc.

Transfer1-

Transfer 2-

Transfer 3-

Transfer 4-

Transfer 5-

Transfer 6-

Transfer 7-

Transfer 8-

Final Required Task: ___/ 4 points

Written Assignment Total _____/15 pts