

Rube Goldberg Machine Project – Lab Sheet

Names: _____

Objective

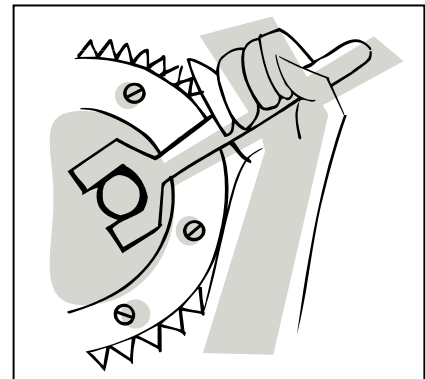
Using at least three of the six simple machines and materials you can find around the your house, design and build a Rube Goldberg machine that can perform a simple task.

Requirements

- At least 3 simple machines
- At least two transfers of energy
- Human involvement only for getting the machine started
- Completion of a final task at the end
- Minimum of 10 steps completed

Task that will be performed: Please indicate your machine's goal action!

Materials Needed:



Sketch of Proposed Machine (you are brainstorming, here!):

FINAL SKETCH (actual machine built)

1. **Label** ALL simple machines used in your machine.
2. **Number** ALL steps in your simple machine.
3. **Briefly explain** how the machine is started (by you): _____

Rube Goldberg Class Project Rubric

	4 points	3 points	2 points	1 point
Machine Types	Includes at least 3 correctly used machine types. (lever classes are the same type of machine)	Includes at least 2 correctly used machine types.	Includes at least 1 correctly used machine type.	Includes no simple machines or machines that are incorrectly used.
Machine Process	Includes at least 10 distinct and separate steps to accomplish the task.	Includes at least 8 distinct and separate steps to accomplish the task.	Includes at least 3 distinct and separate step to accomplish the task.	Includes no distinct and separate steps.

Reliability	Machine works reliably every time and does not require human intervention to accomplish the task.	Machine works reliably, but required human intervention one time to accomplish the task.	Machine works, but required human intervention two times to accomplish the task.	Machine required more than two human interventions to accomplish the task.
Communication	Steps, energy transfers, and simple machines are clearly explained to the audience.	Steps, energy transfers, and simple machines are explained, but missing some detail.	Steps, energy transfers, and simple machines are explained, but missing many details.	Steps, energy transfers, and simple machines are not clearly explained to the audience.
Creativity	Rube Goldberg Master! A novel and amusing idea!	A Rube Goldberg Apprentice! Interesting!	A straightforward implementation.	
Project Paper	All components of the project paper (lab sheets) are complete.	One component of the project paper is incomplete or missing.	Two components of the project paper are incomplete or missing.	Three components of the project paper are incomplete or missing.

Bonus points: Extra steps beyond 10 are 1 point each: _____

Extra machines beyond 3 are 1 point each: _____