

## Sc. 10 Unit 3: Energy Transformations\_Assignment

Name: \_\_\_\_\_ Block: \_\_\_\_ Date Completed: \_\_\_\_\_

### Part 2: Assignment - Design and build a Rube Goldberg Machine:

Step 1:

Design a Rube Goldberg Machine (RGM):

You Must be able to make a video of your simple machine and upload it onto the Google Assignment Form. Your Rube Goldberg Machine...

- Must be safe, not harm anyone, and should NOT cost **you or your** parents any Money
- Must be appropriate & at the correct level of difficulty
- **Must have a goal** (What is the RBM designed to do?)
- must be able to state the energy transformations in each step.

Grading:

Rube Goldberg Rubric:

	4 Fully Meeting Expectations	3 Meeting Expectations	2 Developing	1 Beginning
Energy Transformations	Includes 4 energy transformations.	Includes at least 3 energy transformations.	Includes at least 2 energy transformations.	It does not include any energy transformations.
Machine Types	Includes at least 3 machine types. Each machine is used as a true, different simple machine	Includes at least 3 machine types. Each machine is used as a true simple machine, but some machines may repeat	Includes at least 3 machine types. Some machines are not used as true simple machines.	Less than 3 simple machines.
Machine Process	Includes at least <b><u>5 distinct</u></b> and separate steps to accomplish the task.	Includes at least 5 steps to accomplish the task, but a few steps seem to blend together.	Includes at least 5 steps to accomplish the task, but many steps seem to blend together.	Includes less than 5 steps to accomplish the task.
Reliability	The machine works reliably every time and does not require human intervention.	The machine works reliably but requires human intervention at some point.	The machine frequently does not work.	The machine does not really work.

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Introduction	The machine has a name and the steps of the machine <u>are explained to the viewer.</u>	The machine has a name and the steps of the machine are not clearly explained to the viewer.	Has inappropriate name or the steps of the machine are not explained to the viewer.	Has an inappropriate name and the steps of the machine are not explained to the viewer.
Creativity	Rube Goldberg Master! A novel and amusing idea!	A Rube Goldberg Apprentice! Interesting, but no "wows!"	A straightforward implementation.	A straightforward implementation.
Written Explanation	Picture and written explanation are well written, amusing, and follows Rube Goldberg's format.	Pictures and written explanations are included and follow Rube Goldberg's format.	Pictures and written explanations are included but do not follow Rube Goldberg's format.	Missing written explanation and/or picture.

Comments: