

Name: _____

Date: _____ Bell: _____



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Conservation and transfer of energy: project-based learning with Rube Goldberg machines

Peer-review worksheet

Grading rubric:

Criterion	Criterion Not Met (0)	Needs Improvement (1 pt)	Satisfactory (2 pts)	Excellent (3 pts)
Design Constraints	Machine failed to meet any of the design constraints.	Machine met only one or two of the design constraints.	Machine met only three of the design constraints.	Machine met all four of the design constraints: <ul style="list-style-type: none"> • Initial action activates the machine, and it continues to operate without assistance. • Used at least five transformations of energy. • Used at least three unique simple machines. • Record and upload a video of a successful run of your machine from start to finish.
Design Sketch	Did not draw a design sketch.	Design sketch did not match the actual device and did not include numbered steps on the drawing and also in Table 1.	Design sketch either did not match the actual device or did not include numbered steps on the drawing with descriptions of each step in Table 1.	Design sketch matched the device and was drawn with clearly numbered steps on the drawing and descriptions in Table 1.

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Criterion	Criterion Not Met (0)	Needs Improvement (1 pt)	Satisfactory (2 pts)	Excellent (3 pts)
Energy Transformations	Machine did not use three or more distinct kinds of energy, and one or more of the energy transformations listed in Table 1 were incomplete or incorrect.	Machine used three distinct kinds of energy and all of the energy transformations listed in Table 1 were complete and correct. Minus ¼ point if one or more of the energy transformations listed in Table 1 were incomplete or incorrect.	Machine used four distinct kinds of energy and all of the energy transformations listed in Table 1 were complete and correct. Minus ¼ point if one or more of the energy transformations listed in Table 1 were incomplete or incorrect.	Machine used five or more distinct kinds of energy, and all of the energy transformations listed in Table 1 were complete and correct. Minus ¼ point if one or more of the energy transformations listed in Table 1 were incomplete or incorrect.
Simple Machines	Did not use any simple machines in the device	Included at least one unique simple machine. Listed the simple machine used in the device and correctly identified the type in Table 1. Minus ¼ point in one or more are incorrectly identified.	Included at least two unique simple machines. Listed the simple machines used in the device and correctly identified the type each in Table 1. Minus ¼ point in one or more are incorrectly identified.	Included at least three unique simple machines. Listed the simple machines used in the device, and correctly identified each in Table 1. Minus ¼ point in one or more are incorrectly identified.

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Peer review

	Video Title	Overall Score (0-3)	Comments	Vote (Top 3)
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	Video Title	Overall Score (0-3)	Comments	Vote (Top 3)
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