

Engineering: Rube Goldberg Checklist

Complete	List of Tasks to Complete	Verify this step is complete
	Design Each Step	
	Think about various ways to cause things to happen and then draw sketches in your journal showing how each step will work. You may want to think of more than 6 steps in case a couple of your ideas do not work out or if you cannot locate the supplies.	Journal: A dated journal entry/ies containing sketches of all of your ideas. Remember, human intervention can only occur to 'start' the contraption. After starting, the contraption must move through the steps on its own.
	Build Your Contraption	
	Using your sketches and notes from the previous step build each step in your contraption. Test the contraption and modify as necessary until you can start the contraption in step 1 and the contraption flows through each of the 6 steps until it pops an inflated balloon mounted somewhere on your contraption.	Journal: A dated journal entry/ies documenting every time you worked on your contraption. <u>Be sure to always include notes about what worked, what did not work and what you did to correct it.</u> THE NOTES ARE VERY IMPORTANT, THIS PROJECT IS NOT JUST BUILDING THE CONTRAPTION
	Research and Report Development	
	After you get your contraption working, it is time to study and understand what scientific concepts or rules each step follows. Start with your first step, explain how it works and then explain in scientific terms what is happening. Is the step a simple machine, like a pulley or a lever? Be sure to write all reference materials in your journal. They need to be included in your bibliography in your report.	Journal: Dated journal entry/ies explaining how each step works and the 'science' used to design each step. An example would "gravity causes the ball to roll down the track." Make sure you recorded all information about any sources used.
	If you need help determining the 'science' of your contraption, some examples you can look for and study are velocity, cause and effect, momentum, magnetism, and simple machines like levers, wheel and axle and inclined planes.	Journal: All 6 steps of your machine are explained in dated journal entry(ies) including what science concept explains why the step works the way it does.
	Create an outline for your report using Step Up To Writing. Refer to the Report Guidelines for Rube Goldberg from the school web site for details on the content of your report.	Journal: A complete outline is written in journal in Step Up To Writing format.

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	Write Report and Abstract	
	Write a draft of your report using your Step Up To Writing outline.	Journal: Hand written DRAFT REPORT written in dated journal entry/ies.
	Write Abstract Draft according to directions found on school website for Abstract Writing.	Journal: Hand written DRAFT ABSTRACT written in journal.
	Project Review	
	Locate the Rube Goldberg project rubric on the school web site, verify every step is complete and documented in dated entries in your journal. Dated journal entry/ies addressing and/or correcting and/or adding all items on the checklist. DO NOT ERASE previous journal entries. Simply write new journal entries to correct anything that is missing or incorrect.	Journal: A dated journal entry indicating your review is complete and all corrections and/or additions are complete.
	Type Report and Assemble Tri-Board	
	Type Report including any changes indicated in hand written draft found in your journal. DO NOT PUT NAME OR SCHOOL ON REPORT, ONLY NUMBER AND GRADE.	TYPED REPORT.
	Type Abstract. DO NOT PUT NAME OR SCHOOL ON ABSTRACT, ONLY NUMBER AND GRADE.	TYPED SINGLE PAGE ABSTRACT, include an additional copy of the abstract as the first page of your report behind the cover sheet.
	Assemble tri-board based upon requirements found on school web site.. DO NOT PUT NAME OR SCHOOL ON FRONT OF TRI-BOARD; ONLY WRITE NUMBER AND GRADE ON BACK.	Tri-Board