

Rubric for Flashlight Design



Name: _____

Date: _____ Class: _____

Category	Excellent (___ points)	Good (___ points)	Fair (___ points)	Weak (___ points)	Total Score (___ points)
Construction-Care Taken	Great care taken in construction process so that the flashlight is neat and attractive.	Construction was careful, but 1-2 details could have been refined for a more attractive flashlight.	Construction accurately followed the plans, but 3-4 details could have been refined for a more attractive flashlight.	Construction appears careless or haphazard. Many details need refinement for a more attractive flashlight.	
Function	Flashlight functions extraordinarily well, holding up under atypical stresses. The switch is functional for all light bulbs.	Flashlight functions well, holding up under typical stresses. The switch is functional for most light bulbs.	Flashlight functions pretty well, but deteriorates under typical stresses. The switch is functional for some light bulbs.	Fatal flaws in function with complete failure under typical stresses. The switch is not functional for any of the light bulbs.	
Plan	Plan is neat with clear measurements and accurately labeled for all components including circuitry.	Plan is neat with clear measurements and accurately labeled for most components, including circuitry	Plan provides clear measurements and accurately labeled for some components including circuitry.	Plan does not show measurements clearly or is otherwise inadequately labeled.	
Scientific Knowledge	Explanations by all group members indicate a clear and accurate understanding of scientific principles underlying the construction and circuitry.	Explanations by all group members indicate a relatively accurate understanding of scientific principles underlying the construction and circuitry.	Explanations by most group members indicate relatively accurate understanding of scientific principles underlying the construction and circuitry.	Explanations by several members of the group do not illustrate much understanding of scientific principles underlying the construction and circuitry.	
Components	Flashlight includes all components: 6 light bulbs, parallel circuitry, and a switch.	Flashlight contains 2 of the 3 components.	Flashlight contains 1 of the 3 components.	Flashlight does not contain any components.	
Circuitry	All 6 light bulbs function independent of each other and are arranged in a parallel circuit.	Some light bulbs function independent of each other.	All 6 light bulbs are arranged in a series circuit.	Light bulbs do not light.	