

Epic Quest 2 Grading Rubric

Name _____

Objective	Score	Total
Is there a detailed description of the project and its intended goal?	3	
Is there an experimental plan that describes what will be measured and how it will be measured?	3	
Is there data from temperature sensors?	3	
Does the data contain: <ul style="list-style-type: none"> • Reference Measurements of outside temperature (3) • High Resolution measurements for a 1 hour period (3) • Low Resolution measurements for a 48 hour period (3) • Touch Measurements for each of the surfaces of the box (3) 	12	
Are there low resolution graphs of temperature/light vs time for day?	3	
Are there a high resolution graphs of temperature/light vs time for an hour?	3	
Are there mathematical models of temperature over the course of the day?	5	
Are the mathematical models of temperature over the course of the day extended to create models for the temperature over the course of the year?	5	
Are there graphs of the temperature as a function of time from the projected data for a year?	3	
Are there mathematical models for energy flow in the box from the temperature data?	5	
Are there graphs and a table of the energy flow in and out of the box associated with the temperature data over the course of the 47 hour period?	3	
Are there graphs of the energy flow in and out of the box over the course of year?	5	
Are there mathematical models for the power flow in the box?	5	
Are there graphs of the instantaneous power associated with the temperature data over the course of the 24 hour period?	3	
Are there graphs of the power flow in the box over the course of year?	5	
Is there a 3D representation of the temperature of the walls of the box from the touch temperature data?	7	
Is there a conclusion that discusses the following items: <ul style="list-style-type: none"> • Total energy incident in the box in a year. (2) • The total cost to keep this box in the comfort range over the course of a year. (2) • The cost to keep an average California home in the comfort range over the course of a year. (2) • Compare this cost to historical data for other homes energy costs. (2) • Data analysis linear regression analysis and addresses the project statement (6) 	14	
Is there a picture of the box?	2	
Documentation honors all instructions, rules of spelling, and grammar.	3	
The project shows significant evidence of originality and inventiveness.	3	
Clear evidence that higher level thinking skills were used in the creation of this project.	3	
References and appendices are included	2	
Documentation exceeds expectations	5	