

DEVIL PHYSICS

Class Lab Rubric

Name: _____ Period: _____ Lab Subject: _____

DESIGN				
Criterion	Complete (4)	Partial (2)	None (0)	Points
Defining the problem	Formulates a focused problem / research question	Formulates a problem / research question that is incomplete	Does not identify a problem / research question	4/3/2/1/0 N/A
Selecting Variables	Identifies the relevant variables	Identifies only some relevant variables	Does not identify any relevant variables	4/3/2/1/0 N/A
Controlling Variables	Designs a method for effective control of variables	Designs a method that makes some attempt to control variables	Designs a method that does not control the variables	4/3/2/1/0 N/A
Developing a method for Collecting Data	Develops a method that allows for collection of sufficient relevant data	Develops a method that allows for insufficient collection of relevant data	Develops a method that does not allow for any relevant data collection	4/3/2/1/0 N/A
DATA COLLECTION AND PROCESSING				
Criterion	Complete (4)	Partial (2)	None (0)	Points
Recording Quantitative Raw Data	Records appropriate quantitative raw data	Records appropriate quantitative raw data with some mistakes or omissions	Does not record any appropriate quantitative raw data or data is incomprehensible	4/3/2/1/0 N/A
Recording Qualitative Raw Data	Records appropriate qualitative raw data	Records appropriate qualitative raw data with some mistakes or omissions	Does not record any appropriate qualitative raw data or data is incomprehensible	4/3/2/1/0 N/A
Recording units and uncertainty	Raw data includes units and uncertainty where appropriate	Raw data includes units and uncertainty with some mistakes or omissions	Raw data does not include appropriate units and uncertainty	4/3/2/1/0 N/A
Processing raw data	Processes quantitative raw data correctly	Processes quantitative raw data with some mistakes or omissions	No processing of quantitative raw data or major mistakes made	4/3/2/1/0 N/A
Presenting raw data	Presents processed data appropriately	Presents processed data appropriately with some mistakes or omissions	Presents processed data inappropriately or incomprehensibly	4/3/2/1/0 N/A
Presenting units, errors and uncertainties	Presents processed data with appropriate units, errors and uncertainties	Presents processed data with units, errors and uncertainties with some mistakes or omissions	Major mistakes and/or omissions in unit, error and uncertainty presentation	4/3/2/1/0 N/A
CONCLUSION AND EVALUATION				
Criterion	Complete (4)	Partial (2)	None (0)	Points
Concluding	States a conclusion, with justification, based on a reasonable interpretation of the data	States a conclusion, based on a reasonable interpretation of the data	States no conclusion or the conclusion is based on an unreasonable interpretation of the data	4/3/2/1/0 N/A
Evaluating Procedure(s)	Evaluates weaknesses and limitations	Identifies some weaknesses or limitations, but the evaluation is weak or missing	Identifies irrelevant weaknesses and limitations	4/3/2/1/0 N/A
Improving the Investigation	Suggests realistic improvements with respect to identified weaknesses and limitations	Suggests only superficial improvements	Suggests unrealistic improvements or fails to address weaknesses or limitations	4/3/2/1/0 N/A