

# Egg Drop Project Rubric

Development of Project					Analysis of Project	Communication of Project
Proposal	Procedure	Theory	Data	Construction		
Students will write a proposal Purpose, Hypothesis, Diagram, question to answer, variables to test, and diagram of crate(s)	Define materials and methods needed to study the relationship between their variables	Students will write a detailed background Theory section which includes information from a literature search, and explanations of all relevant physics concepts used in their project.	Students will record their data in neat and organized data table that includes space for results from their calculations.	Students will build an egg crate or a series of egg crates which allow them to test the variable(s) they decide on. These egg crates will be dropped from the height approximately 10 m. Height will be calculated by students.	Students will write a conclusion which relates to their purpose using example data and graphical analysis to support their conclusion.	Students will write a formal lab report which will contain the purpose, materials and methods, background, data, a diagram of the egg crate(s), graph(s), and the conclusion sections. It should be typed using a word processor, and include imported graphs and diagrams.
5 goals statement including Purpose, Hypothesis, Diagram, question to answer, variables to test, and diagram of crate(s)	5 step-by step instructions, includes materials, data collection and analysis techniques	5 Students successfully motivate their research by using readily available physics 4 knowledge and current research in the field to apply this knowledge to their egg crate design.	5 data table contains all necessary data to analyze variables identified, is neat.	20 Egg crate(s) is described in materials section, is clearly useful to gather necessary data, and keeps eggs from breaking	10 Conclusion answers question proposed in the purpose and is supported by the collected data and analysis	20 Lab Report contains all the necessary parts
4 missing a section of the purpose statement	4 instructions are difficult to follow or incomplete, or there is one section missing	4 Students do not relate current research to their design.	4 data table is messy, not well organized, or was not produced on a spreadsheet program	15 Crate(s) is not described in materials section, but is useful for data collection and egg does not break.	8 Conclusion is not supported by analysis	18 Lab Report is not word processed, or diagrams and graphs are not imported
3 missing two sections of the purpose statement	3 instructions are unsafe or misleading, or there are two sections missing	3 Students do not site any current research.	3 data table is missing some necessary data or has two of the above problems	10 Crate(s) is useful, but is not described in materials, and egg broke	6 Conclusion is not supported by data or analysis	16 Lab Report is missing one section

2 missing three sections of the purpose statement	2 instructions are unsafe or misleading and there are sections missing	2 Students do not correctly explain the physics behind their project.	2 data table has at least three flaws	5 Crate(s) could be useful, but egg broke	4 Conclusion does not answer the question in the purpose	14 Lab Report is missing one section and another is not acceptable 14 Lab Report is missing one section and another is not acceptable
1 purpose statement does not include any of the necessary elements	1 lack of instructions, or the instructions do not contain any necessary sections	1 Students do not correctly explain the physics behind their project or site any current research.	1 data table has none of the necessary parts	2 Crate(s) is not useful to the experiment done, egg broke	2 Conclusion is not supported by data or analysis and does not answer the question in the purpose	12 Lab Report is missing two sections, or three are unacceptable
0 purpose not included	0 procedure not included	0 background section not included	0 data table not included	0 No crate was built.	0 No conclusion is turned in.	10 Lab Report is missing two sections, and up to three are unacceptable
				Extra points for every 10 additional meters in height above identified drop 5 for 20meters 10 for 30 meters 15 for 40 or more meters		8 Lab Report is missing three sections, or four are unacceptable
						6 Lab Report is missing three sections and up to four are unacceptable
						4 Lab Report is missing four sections, or five are unacceptable
						2 Lab Report is missing four sections, and up to five are unacceptable
						0 Lab Report is missing more than four sections, or more than five are unacceptable