APP1/C Paradigm Lab Rubric (subject to refinements)

	Levels			
Task	**3-Complete and Exceptional**	**2-Complete**	**1-Partial**	**0-Unsatisfactory**
Format	N/A	Neatly placed in notebook, securely attached, everything legible, follows page format below, labeled sections, lists group members, descriptive title.	Minor errors	Pages out of order, not securely attached, appearance poor, page orientation errors, etc.
Setup Page, Front – Introduction	Background information making broader connections.	Statement of purpose. Discussion of lab that answers two questions: "Why this lab?" "Why at this time?"	Introduction incomplete, or inaccurate.	Not present.
Setup Page, Front - Materials & Methods	N/A	All items listed, named correctly, used appropriately, reasonable level of detail. Describes data analysis.	Some items misnamed or unlisted,	Not present, or some items used inappropriately.
Setup Page, Back - Apparatus Diagram	N/A	**Diagram** clearly demonstrates equipment, setup, and variables measured.	Diagram is unclear or, incomplete,	Not present, inaccurate, or does not identify variables
Data Page, Front - Data Table with uncertainty	Thorough uncertainty analysis for each type of measurement (for instance, percent uncertainty) and explains how determined.	Presents a reasonable sample of raw data in an appropriate **data table**, with correct units, Basic estimates of uncertainty for each measurement. Shows processed data where applicable.	Data incorrect or missing units or other information. Insufficient data presented.	Incomplete.
Data page, Back – Graphs, Equations, Interpretations	All models written in physics terms, with brief explanations. All graphs **linearized**,	Presents precise **graphs** of data with labels, best-fit. Writes a mathematical equation in physics terms for each best-fit, interprets **slope**, **intercept** and **area** on each graph (where applicable).	Incompletely labeled, unclear, poorly interpreted.	Incomplete, not present.
Conclusion page, Front - Discussion	Unusual insight: suggests mechanisms, makes interesting recommendations for improvements or additional study.	Describes **conceptual model**, cites **evidence**, puts model in **context**, by describing real-world examples.	Incomplete or inaccurate (i.e. you don't understand what you've done)	Not present.
Conclusion page, Back – New Representations of models	N/A	Writes a **general statement** of math models, includes **linearized sketch graphs** and **visual representation**.	Poorly labeled, unclear, non-linear, poorly interpreted.	Incomplete, not present.

100% 20-17 |95% 16|85% 15-14|75% 13-11|65% 10-8|55% ≤7

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