

	4-5 - Exemplary	3 - Proficient	2 – Limited Proficiency	0-1 - Incomplete	Score
<b>Title and Abstract</b> <i>(Missing heading -1)</i>	Title is clear and descriptive. Author’s name, institutional affiliation, and date are included. Concise summary of all sections is provided in the abstract.	Title is ambiguous. Title information is included. Abstract references most of the major aspects of the experiment but minor details are missing.	Title is ambiguous or title information is missing. Abstract misses one or more major aspects of the experiment.	Title and/or title information is missing. Several major aspects of the experiment are missing from the abstract.	
<b>Introduction</b> <i>(Missing heading -1)</i>	Makes a clear statement of the purpose and central question. Describes completely the scientific principles involved. Provides a rationale for the experiment. Cites all sources correctly (MLA or ACS style).	Makes a clear statement of the purpose and central question. Describes most of the scientific principles and background. Some information is missing and/or sources are incorrectly cited or formatted.	Makes a less-than-clear statement of the purpose. Makes an attempt to describe the scientific principles, but major points are missing or unclear. References are not scientific.	Very little background information provided or information is incorrect. Few or no scientific references.	(x2)
<b>Methods</b> <i>(Missing heading -1)</i>	Presents, in paragraph form, a clear and concise third-person omniscient account (not a “recipe”) of the procedures utilized in the investigation in a way that another individual could duplicate the lab. Explains why important procedures were done.	Presents an unclear or numbered third-person omniscient account of the procedures utilized in the investigation. Explanations of lab procedures are present but may be unclear.	Lists some of the materials used and presents a “recipe” or numbered account of the procedures utilized. Explanations are missing or inconsistent.	Presented as a list of procedures without explanations. Procedure not presented in a manner that would be easy to duplicate.	
<b>Results</b> <i>(Missing heading -1)</i>	Section is organized and easy to read. All data is explicitly mentioned in the text. All figures, graphs, tables are done correctly, numbered, and contain titles/captions. Data uses significant figures. Calculated values are provided.	All data is mentioned in the text. All figures, graphs, tables are correctly drawn, but have minor problems or could be better organized. Calculations are provided but may be incorrect. Minor errors with significant figures.	Figures, graphs, tables are present but missing some information; organization is poor. Results are poorly summarized and/or calculations are incomplete or incorrect. Many errors with significant figures.	Data is not fully referenced in the text. Figures, graphs, tables contain errors or are poorly constructed, have missing titles, captions, etc. May contain a poor attempt at describing results. Calculations are missing. No significant figures.	
<b>Discussion</b> <i>(Missing heading -1)</i>	Presents a reasonable interpretation of, and logical explanation for, all findings pertaining to problem and stated purpose. Discusses sources of error in detail, including ways of avoiding errors in the future. Links conclusions to appropriate background information.	Presents a reasonable interpretation of, and explanation for, findings pertaining to problem and stated purpose. Discusses possible sources of error in detail. Links to some appropriate background information.	Presents a poor interpretation of findings pertaining to problem and state purpose and/or fails to address sources of error adequately, if at all. Does not adequately link to background information.	Something is written, but it is not an interpretation of findings, and or fails to address sources of error. Does not include connections to background information.	(x2)
<b>Literature Cited</b> <i>(Missing heading -1)</i> <i>(ACS Style +2)</i>	Lists sources for all citations made in the paper. Correctly follows MLA style.	Lists sources for most citations made in the paper. May incorrectly format some given sources.	Lists sources for some citations made in the paper. Formats for given sources incorrect.	Source list is missing, or grossly incomplete.	
<b>Mechanics</b>	All grammar/spelling is correct and very well-written. Does not require prior knowledge of the experiment.	Minor grammar/spelling errors. Readable style overall. Does not require prior knowledge of the experiment.	Occasional grammar/spelling errors, but generally readable. Some rough spots in writing style.	Frequent grammar and/or spelling errors. Difficult to read. Requires prior knowledge of the experiment to understand.	
<b>Format</b>	All sections in order and properly formatted.	All sections in order; formatting adequate.	Formatting detracts from readability.	Formatting makes the paper difficult to understand.	