

SEAS Student <i>Classroom To Sea Lab</i> Report Rubric		Level			
Section	Description	0	1	2	3
Introduction	Description of the lab investigation (i.e., purpose, question and hypotheses). Includes background information on the question and hypotheses, as well as pertinent references. Also includes brief overview of how the lab was conducted.	Introduction section is limited, missing many required components. Does not portray the intent of the investigation or cite questions / hypotheses. Not clearly written.	Purpose of investigation is presented but some components of the Introduction are missing. Little background information provided.	Good description of the purpose of the investigation with background information and references. Missing one or two components. Clearly written.	Complete description of investigation's intent, including question and hypotheses. Includes background discussion and references to related work. If appropriate, introduces unique perspective on the investigation. Enthusiastically written to intrigue the reader.
Materials and Methods	Description of steps taken to collect classroom data, as well as steps to obtain at-sea data from website. Where appropriate, should include discussion of at-sea field notes from website. Should also include description of students' data analysis.	Methods not clearly presented or inaccurate. No discussion of data analysis approach.	Methods are described but missing steps. No reference to at-sea field notes. Data analysis approach not clearly presented.	Methods are presented clearly. Description of data analysis approach sufficient. Missing reference to at-sea field notes	Methods used to collect data are clearly and accurately described. Good summary of pertinent at-sea field notes. Clear description of data analysis approach included.
Results	Presentation of summarized data, including explanation of graphs and tables, and clear comparison of classroom vs. at-sea data. Note, this section does NOT include interpretation of results.	Data is not summarized. Tables are not clear. Important data missing.	Data is summarized but missing components. Results are not clear. Too many tables/graphs.	Results are presented clearly but somewhat incomplete. Tables/graphs are used appropriately and labeled properly.	Results are presented clearly and succinctly (only most important). Tables and graphs are used appropriately and labeled properly. Results are clearly organized. Comparison of classroom vs. at-sea data clear.

CtoS Lab Report Rubric, continued		Level			
Section	Description	0	1	2	3
Discussion	Interpretation of results, including discussion of limitations of methods and areas of uncertainty, and whether data supports hypothesis. Should also include discussion of follow-up research questions and justification . Final paragraph should summarize major findings of the lab investigation.	Restatement of results without interpretation. Missing acknowledgement of limitations of study, uncertainty, or follow-up research. No clear summary.	Limited interpretation of results. Limited discussion of design constraints, uncertainty in data, or follow-up research. No clear summary.	Good interpretation of results, including whether data supports hypothesis. Some discussion of limitations of design, uncertainty in data. Missing one or two components. Written summary included.	Clear and complete interpretation of results presented, including whether data supports the hypothesis. Novel interpretation of significance of results. Good discussion of limitations of design, uncertainty in data, and possible improvements or follow-up research. Succinct summary.
References	Listing of relevant, related work from textbooks, journals or valid websites. Citation of references included in body of the report.	No references	1-2 references included at end of report but not cited in body of text.	1-2 references accurately listed and cited in appropriate places in body of the report.	3+ references accurately listed and cited in appropriate places in body of the report.
Writing	grammar, spelling, punctuation, clarity	Errors in grammar, spelling. Writing unclear and confusing.	Errors in grammar, spelling and/or punctuation.	Accurate spelling, grammar, and punctuation.	Accurate spelling, grammar, and punctuation. Clearly written.
Note: Reports must score at least 50% (9 out of 18 points) on this rubric to be considered for review by a scientist.					