Oregon Scientific Inquiry Scoring Guide & Rubric[[1]](#footnote-1) **(Page 2)**

**Forming a Question or Hypothesis -** *Based on observations or prior research, create questions or hypotheses that can be tested in a science experiment or investigation.*

Proficient

* The Hypothesis or question can be easily read, and tested in the Science Classroom.
* Provides a detailed background for the investigation
* The hypothesis or question is clearly tied or linked to the investigation

Almost Proficient

* The hypothesis or question could be tested in the Science Classroom.
* Provides background related to the investigation.
* The hypothesis or question is tied or linked to the investigation.

Developing Proficiency

* The hypothesis or question might be incomplete, but still could be tested in the Science Classroom.
* The background is somewhat related to the question.
* The hypothesis or question is not clear enough to drive the investigation.

Not Proficient

* The hypothesis or question cannot be tested.
* The background information has nothing to do with the question or hypothesis.
* The question or hypothesis is not tied to the design of the investigation.

**Designing an Investigation -** *Create a safe experiment or investigation to test a question or hypothesis that lists the procedures, resources, and variables being tested in the experiment.*

Proficient

* The procedure is scientific and precise in design, and uses all resources.
* The variables being tested are clearly identified, are labeled control, and are relevant to the procedures.
* The data and/or the results are clearly tied to the hypothesis being tested.

Almost Proficient

* The procedure is scientific, mostly easy to follow, and uses most of the resources listed.
* The variables being tested are relevant to the procedure.
* The data and/or results are relevant to the hypothesis being tested.

Developing Proficiency

* The procedure has some scientific parts with some errors.
* Some of the variables are not identified, and only some of the procedures make sense.
* The data and/or results only somewhat address the question or hypothesis.

Not Proficient

* The procedures are incomplete, not scientific, or are difficult to understand or follow.
* The variables being tested are not identified or the identified variables are not being tested.
* The data and/or results do not have anything to do with the question or hypothesis.

**Collecting and Presenting Data -** *Collect, organize, and display the results of the experiment or investigation.*

Proficient

* Collects detailed data that is easily readable by peers.
* The data is recorded and displayed in an organized and detailed way with no errors.
* Displays data that is completely on topic.

Almost Proficient

* The gathered data is about the investigation.
* The recorded data is displayed with little to no organization errors.
* Displays data that is mostly on topic.

Developing Proficiency

* The collected data is somewhat related to the investigation.
* The recorded data is displayed with multiple organization errors, but the purpose is still understandable.
* Displays data that is somewhat on topic.

Not Proficient

* The collected data is not related to the investigation, or the data is incomplete.
* The display of the data is incomplete, full of organization errors, or the wrong data is shown.
* Displays data that is not on topic.

**Analyzing and Interpreting Results -** *Summarize and analyze the data from the experiment – including any errors or mistakes that occurred. Describe the results, and explain how they might help shape future experiments.*

Proficient

* The explanation of the data collected is complete, precise, and easy to understand. Direct comparisons are made to previous investigations.
* Conclusions are easy to follow, and include sources and make reasonable suggestions on how the investigation could be improved.
* Directly and completely answers the question or hypothesis, and suggestions for further investigations are understandable, testable, and make sense.

Almost Proficient

* The explanation of data is complete, and understandable. Minor comparisons are made to previous investigations, but are still present.
* The conclusions are complete, and attempt to make suggestions on how the investigation could be improved.
* The conclusion answers the question or hypothesis, and suggestions for further investigations are made.

Developing Proficiency

* The explanation of data is missing some minor parts, but is still understandable. Few comparisons to previous investigations are made, or are not directly described.
* The conclusions are not complete, and make few suggestions on how the investigation could be improved.
* The conclusion does not directly address the question or hypothesis, and suggestions for further investigation are incomplete or only make partial sense.

Not Proficient

* The explanation of data is missing some major parts, is not understandable, or is completely unrelated to the investigation.
* The conclusions are incomplete, and make no suggestions on how the investigation could be improved.
* The conclusion has nothing to do with the question or hypothesis, and no suggestions for further investigation are made, or such suggestions are completely off topic.
1. Adapted by Mr. Kordon’s 7th Grade Science Classes 2014-15 from the ODE 2011 Official Scientific Inquiry Scoring Guide. [↑](#footnote-ref-1)