Science Notebook Rubrics

Science notebooks are an integral part of the science curriculum for all K-12 students. The form of the notebook itself may vary from teacher to teacher and from grade level to grade level but the overall intent of the notebook is the same – to help students document their work, make sense of it and use the notebook as a resource to revisit and apply their knowledge and insights in new learning situations.

Notebooks should be used nearly every day and be essential to the student's work. The notebook provides a record of classroom activities, laboratory experiences, and student reflections. The Science Department recommends that teachers assess science notebooks based on the quality of student work, its organization, and its completeness.

No matter what form the notebook takes – whether it is a permanently-bound, chronologically-sequenced notebook with handouts taped in, a 3-ring binder organized by type of assignment, or something or your own design – there are some essential features that we recommend that all science notebooks include.

Essential Notebook Features:
- The science notebook is a **daily** record of the student's experiences, ideas, and understandings about science.
- The materials and entries are organized appropriately (as determined by teacher).
- There is a *Table of Contents* to help the student and reader effectively use the notebook.
- All entries are dated and titled/labeled.

- **There are four main assessment criteria for science notebooks:** The two ***Quality Criteria*** involve classroom ***artifacts*** and student-generated entries for ***making sense*** of each lesson. (Explained further in the charts.) The two ***Structural Criteria*** involve the notebook's ***organization*** and ***completeness***.

Science Notebooks
Grades 6-12

BOSTON Public Schools
Focus on Children
Office of Curriculum & Instruction
Department of Science

Pamela M. Pelletier
Senior Program Director

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Artifacts of a lesson: *Evidence of what the student is engaged in during class*	*Making-sense of a lesson:* *Evidence that the student is developing scientific understandings*
Artifacts can be in a variety of forms – there should be something written/included in the notebook for every class session Written observations Descriptions Sketches Notes – from readings, research, lecture, discussion Data tables Charts Graphs Labeled drawings/diagrams Graphic organizers Vocabulary Objectives Worksheets/handouts Projects Presentations Lab reports	Evidence of student "sense-making" should be seen in the notebook, each day and "in their own words" and/or "of their own design" –- Statement of what is learned What I think... Quick writes I am surprised... I wonder... I now understand... I rediscovered... The important thing about... Additional questions that remain or can be investigated Concept maps Outcome sentences Venn diagrams Metaphors and Analogies Plan of work Models Experimental design developed by students Claims and supporting evidence Summaries/Conclusions Cartoons/Pictographs/Flow Charts Homework

Science Notebook Rubric

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	Notebook Component	Assessment Criteria	Score	Comments
Quality Criteria	**Artifacts** 0 to 30 points	Data tables, units of measurements and drawings are frequently used to clarify records. Observations are labeled and/or descriptive and to the point. Drawings are included wherever appropriate. Notes of all types are clear, concise, and sources are included when appropriate.		
	Making Sense 0 to 30 points	Work shows a clear difference between student observations and student ideas/speculations about what is observed. Entries show in-depth processing of information. Science vocabulary is used correctly. Statements are supported by evidence. Explanation/reflection is in student's **own** words, diagrams, pictures, graphs.		
Structural Criteria	**Organization & Structure** 0 to 20 points	Table of Contents is up to date. Materials/entries are organized appropriately (as instructed by teacher). Notes are written chronologically Each entry begins with the date. Entries are labeled/titled. Handwriting is easy to read. Information/materials are organized such that they can be used as a resource. Classroom artifacts are included/attached as part of the notebook.		
	Completeness 0 to 20 points	Artifacts and "sense making" entries are found for each class session.		

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