

Science Interim Assessments

Pacing chart & chart of science writing genres

What skills are the students learning and how are they evident in the writing and oral presentations they're asked to produce? The tasks we design for all grades should reflect the goals of the pacing chart and should lead to student work that documents their development as writers.

IA 1 Diagnostic	IA 2	IA 3	IA 4	PBAT Required for graduation
Wide choice of writing genre	Genres that make use of secondary sources	Technical and scientific genres that provide the skills needed for a successful PBAT (e.g., lab reports, debates, presentations, journals).		
Contextualize: read & use a secondary source provided by teacher	Read and use secondary sources provided by teacher	Research information from scientific texts (e.g., journal articles); continue to use secondary sources	Applies research to design an experiment	PBAT: Original experiment, report and presentation with external evaluators (see rubric).
Critique an experimental design	Identify parts of an experiment	Design parts of an experiment & identify its sources of error	Design parts of an experiment & analyze its sources of error, bias, & reliability.	
Collect or cite and present data or information.	Collect and represent data visually. Recognize patterns and make appropriate inferences.	Collect data. Represent data in tables and graphs. Draw conclusions supported by data & reflect on relevance of the experiment.	Collect data. Apply mathematical and/or statistical analysis to design.	
Participate in group or class discussion about the task.	Extensive student involvement in group and class discussion of scientific issues.	Extensive student involvement in group and class discussion of scientific issues.	Extensive student involvement in group and class discussion of scientific issues.	

TYPES OF SCIENCE OF WRITING

Technical (Labs & PBATs)	Informational (Expository)	Persuasive (Argumentative)	Narrative
Abstract	Notebook Entries	Rationales	Science
Introduction	Journal Responses	Misconception	Fiction
Background	Summary and	Probes	Children's
Methods	Synopsis	Petition Letters	Book
Analysis	Reading Logs	Letter to Elected	PSA's
Discussion	Reading Reflections	Official	
Conclusion		PSA's	
	Posters	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p>Writing – to – Learn Commonly linked to both Informational and Persuasive</p> </div>	
	Pamphlets		
	Case Studies		
	PSA's		
	PowerPoint		Position paper
	Presentations		
	Feature Articles		
	Editorials		
	Interviews of scientists		
	Annotated diagrams		
	Captions / Thought- bubbles		
	Visual timelines		
	Notecards		

Writing Protocols:

On-demand and/or Timed writing, Recurring Writing, Notebook or Journal Entries, Exit Slips, Notetaking, Notecards, Annotation, Accountable Talk or Clickers as pre-writing activities

ELEMENTS OF STRONG NON-FICTION SCIENCE WRITING

- a position is clearly taken by restating the claim
- vocabulary is appropriately and accurately used throughout
- key scientific verbs make the writing fluid
- logical flow and sequence of ideas
- addresses the "incorrectness" of alternative explanations
- language is specific and avoids excessive use of "it"
- strong use of evidence (states source of info)
- returning to the original question/prompt provides focus to the writing
- objective voice
- supposition statements (If...then...)