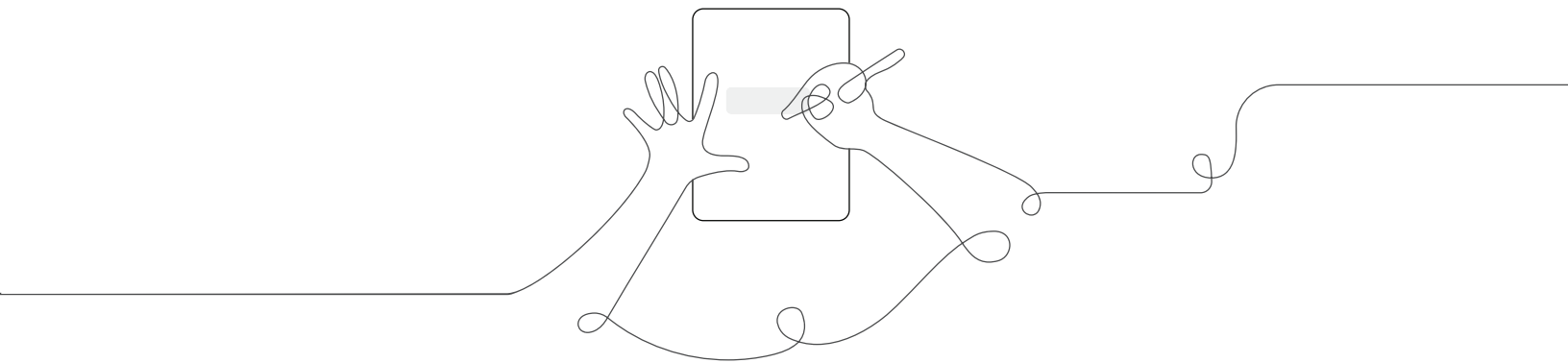


Amplify Science

Participant Notebook

Accessing Complex Text in Amplify Science
NYC Grades K-5



A three-part model for measuring text complexity

Qualitative Measures:

- Knowledge demands
- Text structure (including visual representations)

Quantitative Measures:

- Sentence length
- Vocabulary load

Reader and Task Measures:

- Background, experience
- Purpose, assignment
- Motivation

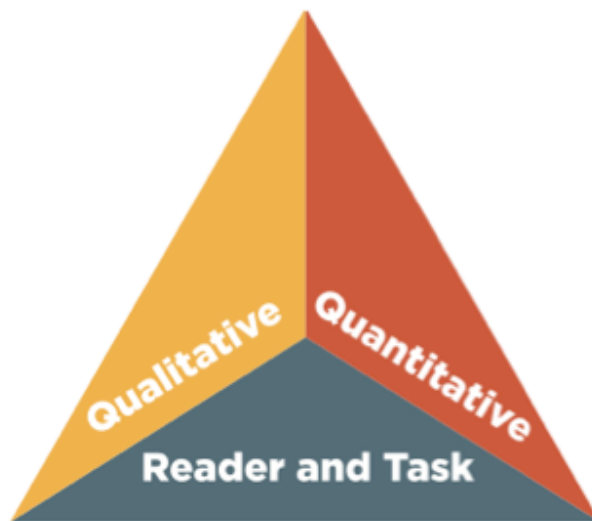


Figure 1: The Standards' Model of Text Complexity

Excerpted from *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects. Appendix A: Research Supporting Key Elements of the Standards and Glossary of Key Terms*. National Governors Association Center for Best Practices, Council of Chief State School Officers, Washington D.C, 2010

Reference: Text Roles

Text role	Purpose
Set context	Connect to the world outside the classroom
Deliver content	Read to learn about science
Model	Demonstrate a process or scientific practice
Support secondhand investigations	Provide data for students to interpret
Support firsthand investigations	Provide information for investigations

From Cervetti, G. N. & Barber, J. (2009). Text in hands-on science. In Hiebert, E. H. & Sailors, M. (Eds.) *Finding the Right Texts: What Works for Beginning and Struggling Readers*. New York: The Guilford Press.

Amplify Science unit essentials reference

Grade	Unit	Student role	Unit type	Focal crosscutting concept	Sense-making strategy	Writing genre
K	Needs of Plants and Animals	scientist	investigation	systems	setting a purpose	explanation
	Pushes and Pulls	pinball engineer	design	cause and effect	visualizing	explanation
	Sunlight and Weather	weather scientist	modeling	cause and effect	making predictions	explanation
1	Animal and Plant Defenses	aquarium scientist	modeling	structure and function	visualizing	explanation
	Light and Sound	light and sound engineer	design	cause and effect	asking questions	explanation
	Spinning Earth	sky scientist	investigation	patterns	making predictions	explanation
2	Plant and Animal Relationships	plant scientist	investigation	systems	setting a purpose	explanation
	Properties of Materials	glue engineer	design	cause and effect	making predictions	design argument
	Changing Landforms	geologist	modeling	scale, proportion, and quantity	visualizing	explanation
3	Balancing Forces	scientist	modeling	stability and change	setting a purpose	explanation
	Inheritance and Traits	wildlife biologist	investigation	patterns	asking questions	explanation
	Environments and Survival	biomimicry engineer	design	structure and function	making inferences	explanation
	Weather and Climate	meteorologist	argumentation	patterns	visualizing	scientific argument
4	Energy Conversions	systems engineer	design	systems	synthesizing	design argument
	Vision and Light	conservation biologist	investigation	structure and function	asking questions	explanation
	Earth's Features	geologist	argumentation	stability and change	making inferences	scientific argument
	Waves, Energy, and Information	marine scientist	modeling	patterns	visualizing	explanation
5	Patterns of Earth and Sky	astronomer	investigation	patterns	visualizing	explanation
	Modeling Matter	food scientist	modeling	scale, proportion, and quantity	making inferences	explanation
	The Earth System	water resource engineer	design	systems	synthesizing	explanation
	Ecosystem Restoration	ecologist	argumentation	energy and matter	making inference and synthesizing	scientific argument

Planning for Differentiation

Choose a lesson where a text is introduced or re-visited. What strategies will you implement for particular learners so they can engaged with complex texts in a meaningful way?

Lesson #	Type of support	Instructional Suggestion (summary)
Which of your students might need support? When could you provide it?		
How would you use or modify the suggestion?		

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Which of your students might need support? When could you provide it?		
How would you use or modify the suggestion?		

Reading across K-5 in Amplify Science

Reading in Amplify Science is approached from an inquiry stance – students ask questions, make connections, evaluate information, search for evidence, and clarify difficult concepts as they read. This approach reflects the ways scientists obtain, evaluate, and communicate information. Reading and discussing texts in these ways builds students’ capacity to read strategically while simultaneously building their understanding of science content. In order to support students’ engagement with complex text, the program provides the following scaffolds:

- Explicit instruction for accessing text by leveraging specific sense-making strategies that are appropriate to the task, purpose, and grade level
- Support through teacher modeling of linking information in text to investigations
- Partner reading and support for discussions about text with peers
- Multiple opportunities to engage with the same text

Additional K-5 Developmental considerations and supports

	Kindergarten - Grade 1	Grades 2-5
Books in the unit	5 custom-written informational texts, including one reference book	5 custom-written informational texts, including one reference book
Modes of reading	Each unit book is designated as either a Read-Aloud, a shared read, or a partner read for the first read with subsequent readings of the same book as partners.	All unit books are designated as partner reading books. Students often return to the books multiple times. Students are supported through discourse routines and investigation notebook pages.
Text design for accessibility	Readability levels for each book are based on the initial mode of reading. For example, a read-aloud book has a higher readability level than others because in the read-aloud, the teacher takes full responsibility for recognizing and decoding the words. Visual representations are selected and designed to convey information and support accessibility.	The five books in each unit are written to reflect reading expectations for the particular grade level in which they are used, and to provide appropriately complex science texts for students that support, link to, and expand their firsthand science learning. Visual representations are selected and designed to convey information and support accessibility.
Examples of additional experiences with reading	Investigation notebooks Classroom wall Co-constructed charts <ul style="list-style-type: none"> • “What we know about ___ “ Mini books (student-completed) Language frames Word rings (grade 1)	Investigation notebooks Classroom wall Co-constructed charts Evidence cards

