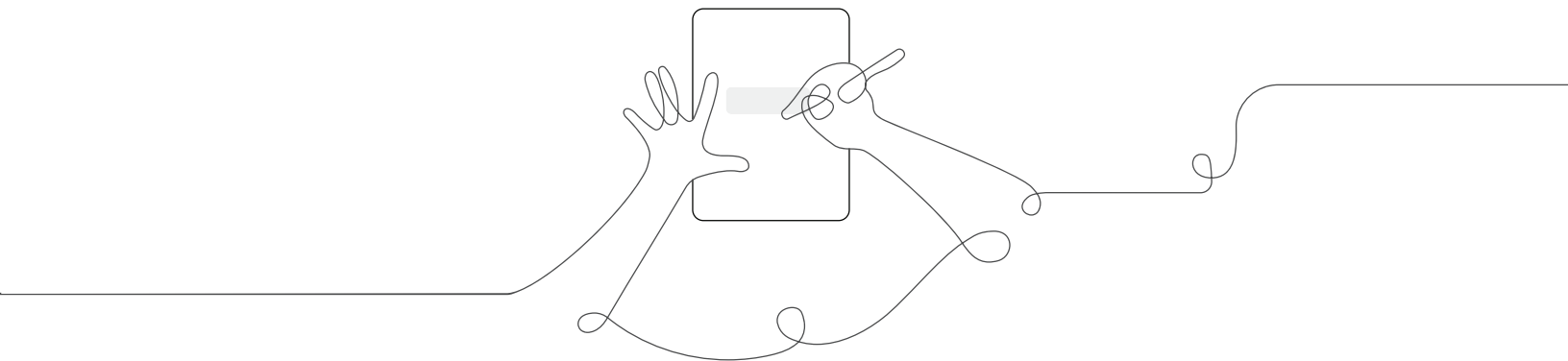


AmplifyScience

# Participant Notebook

Accessing Complex Text in Amplify  
Science, Grades 6-8



## 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

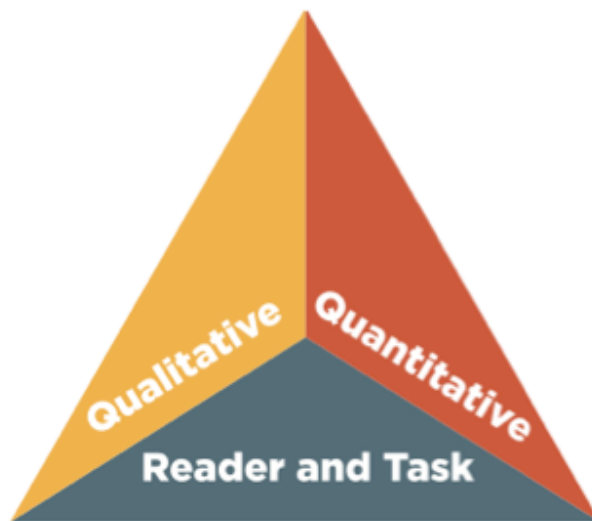
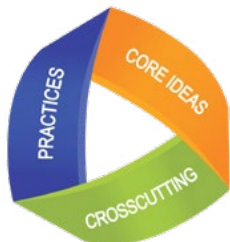


Figure 1: The Standards' Model of Text Complexity

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

# Three dimensions of NYSSLS reference

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3-D learning engages students in using scientific and engineering practices and applying crosscutting concepts as tools to develop understanding of and solve challenging problems related to disciplinary core ideas.

## Science and Engineering Practices

1. Asking Questions and Defining Problems
2. Developing and Using Models
3. Planning and Carrying Out Investigations
4. Analyzing and Interpreting Data
5. Using Mathematics and Computational Thinking
6. Constructing Explanations and Designing Solutions
7. Engaging in Argument from Evidence
8. Obtaining, Evaluating, and Communicating Information

## Disciplinary Core Ideas

### Earth and Space Sciences:

ESS1: Earth's Place in the Universe  
ESS2: Earth's Systems  
ESS3: Earth and Human Activity

### Life Sciences:

LS1: From Molecules to Organisms  
LS2: Ecosystems  
LS3: Heredity  
LS4: Biological Evolution

### Physical Sciences:

PS1: Matter and its Interactions  
PS2: Motion and Stability  
PS3: Energy  
PS4: Waves and their Applications

### Engineering, Technology and the Applications of Science:

ETS1: Engineering Design  
ETS2: Links among Engineering Technology, Science and Society

## Crosscutting Concepts

1. Patterns
2. Cause and Effect
3. Scale, Proportion, and Quantity
4. Systems and System Models
5. Energy and Matter
6. Structure and Function
7. Stability and Change

## Comparing text samples

Sample text:

A warming climate is resulting in a dramatic loss of habitat for many arctic organisms, but possibly none are affected quite as much as the polar bear. The shrinking ice in many regions of the Arctic Sea causes a contraction in the productive hunting territory for these carnivores, who subsist mainly on prey such as seals and fish that are found here.

*Amplify Science* Article:

It's easy to see how a warming climate trend would cause polar bears to lose their habitat. Warmer temperatures cause more ice to melt. Ice is an essential part of the polar bear habitat: the bears walk out onto ice that covers the Arctic Ocean in winter in order to reach the seals that they kill and eat. Less ice means less habitat for polar bears.

# Planning for Differentiation.

## Planning for differentiation in reading support

Choose a support in a lesson with either a first-read or a second-read. How might you implement the strategy for particular students so they can engage with complex texts in a meaningful way? As time allows, continue to plan the same way with another note or in another lesson.

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?		

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?		

# Amplify Science@Home resources reference

Use this guide to keep track of the different resources available for remote and hybrid learning.

<b>Instructional materials:</b> Click Remote and hybrid learning resources, then select your grade level from the dropdown menu. Select your unit.	
<b>@Home Unit resources:</b> These will appear when you select your unit.	
Teacher Overview	General information for teaching with @Home Units, planning information, chapter and lesson outlines
Lesson Index	Lists the original Amplify Science lessons associated with each @Home lesson, and the Investigation Notebook pages, copymasters, and print materials associated with the @Home Unit Student Sheets
Family Overview	Information to send home to families to help them support students with remote learning
Student lesson materials for @Home Units	Printable or digital lessons condensed to be about 30 minutes long. You can access compilations of all student materials for your unit, or select from individual lessons.
<b>@Home Video resources:</b> After selecting your grade level and unit, select the @Home Videos tab below your unit title.	
@Home Video links	Links to video lessons that include all activities from the original units. Lesson playlists are on YouTube, and they autoplay in a playlist form.
<b>Additional remote and hybrid instructional materials:</b> These can be accessed from the tabs below your unit title.	
Hands-on investigations support	Videos of every unit's hands-on activities (note, these videos also appear in the student lesson materials).
Read-aloud videos	Link to a YouTube playlist of read-aloud videos of all books in your unit.
<b>Orientation and Tutorials:</b> Click Remote and hybrid learning resources, then select your grade from the dropdown menu. Click Orientation and Tutorials. You'll not only find videos to help you use the resources, but also videos you can share with students and caregivers.	

