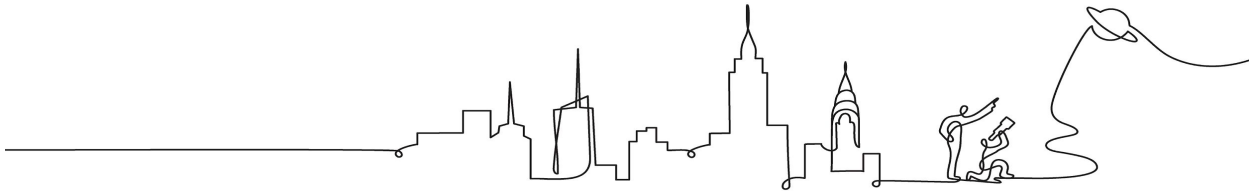
Welcome to Amplify Science!

Follow the directions below as we wait to begin.

1. Please log in to your Amplify Account.

2. Sign in using link dropped in chat.

3. In the chat, share your school, your current instructional context (remote/hybrid/in-person), & how long you've been teaching Amplify Science.

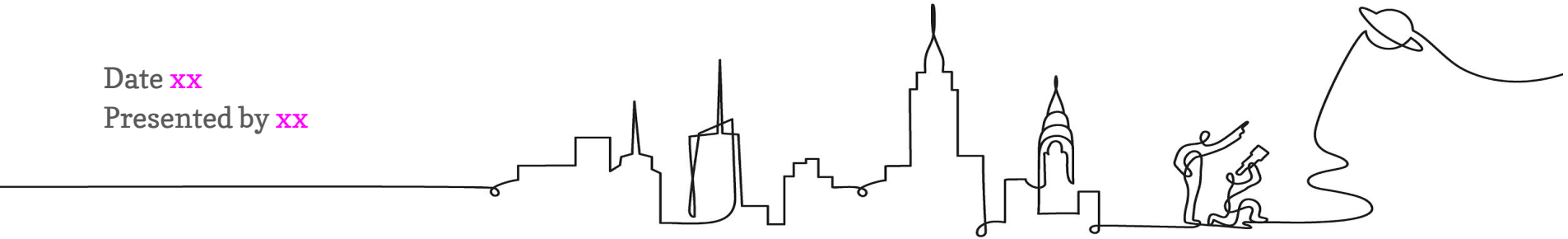


Amplify Science
New York City

Accessing Complex Texts

Grade 8

Date xx
Presented by xx



Anticipatory Activity

On the Jamboard, please post your responses to:

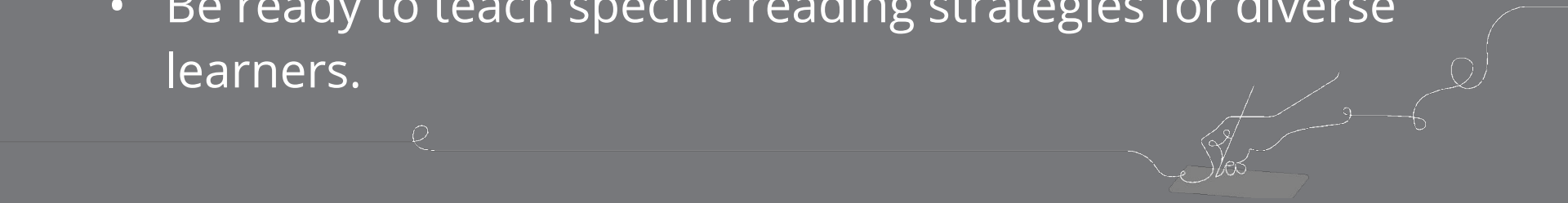
- **Question 1:** How do scientists use text ?

- **Question 2:** How do students use text in your science classroom?

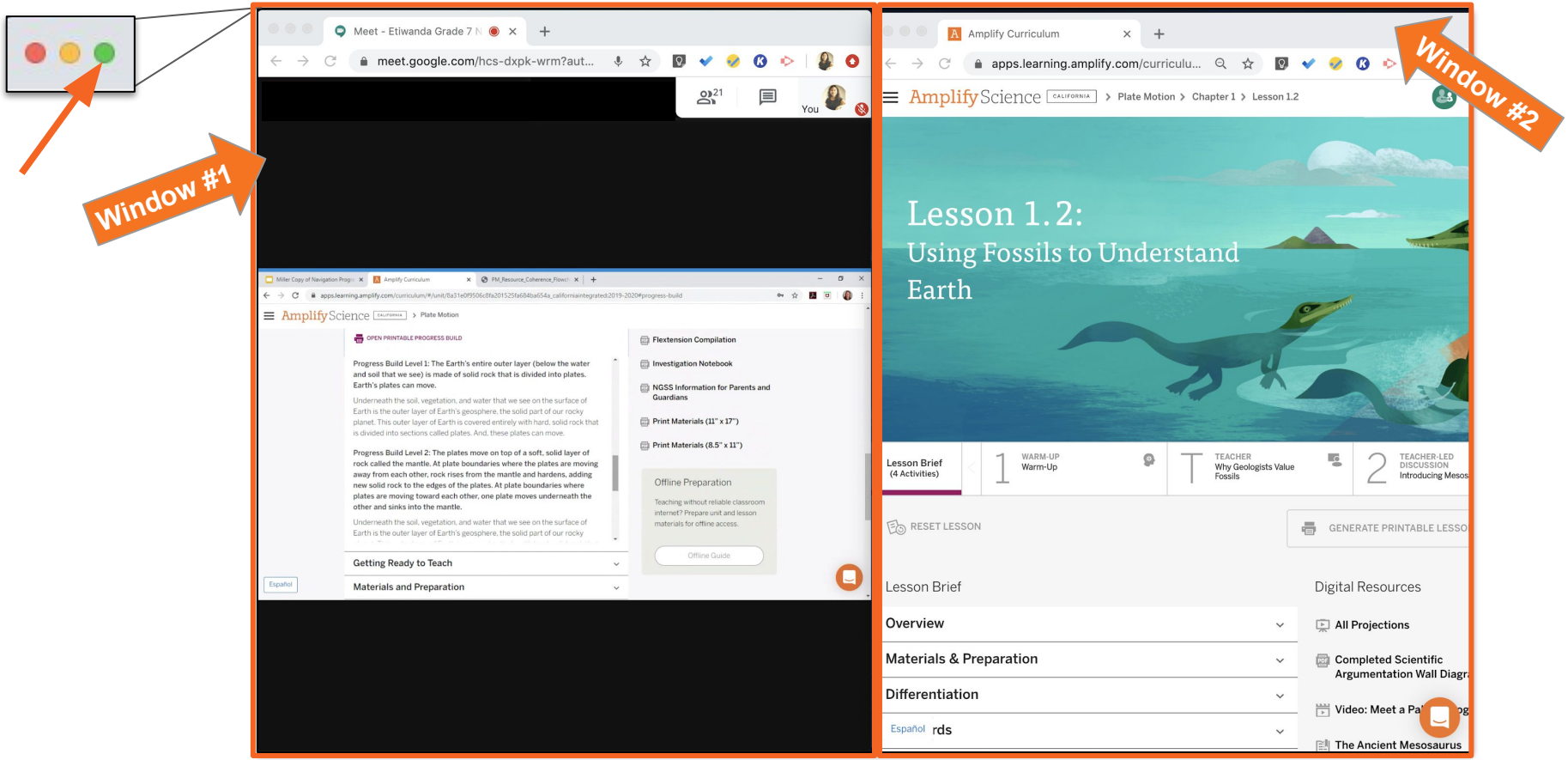
Overarching goals

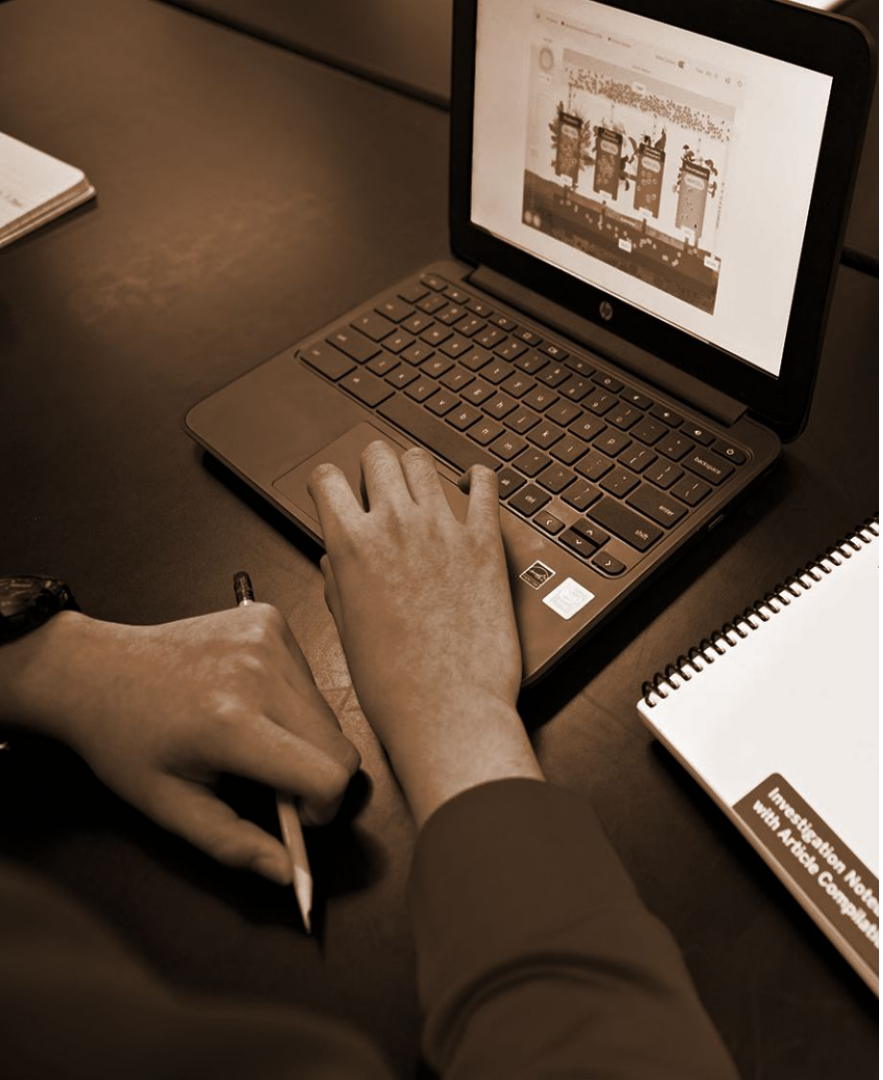
By the end of this workshop, you will be able to:

- Identify the different roles that text can play in figuring out science concepts.
- Describe how the Amplify Science approach to reading supports students in making sense of science ideas.
- Be ready to teach specific reading strategies for diverse learners.



Use two windows for today's webinar



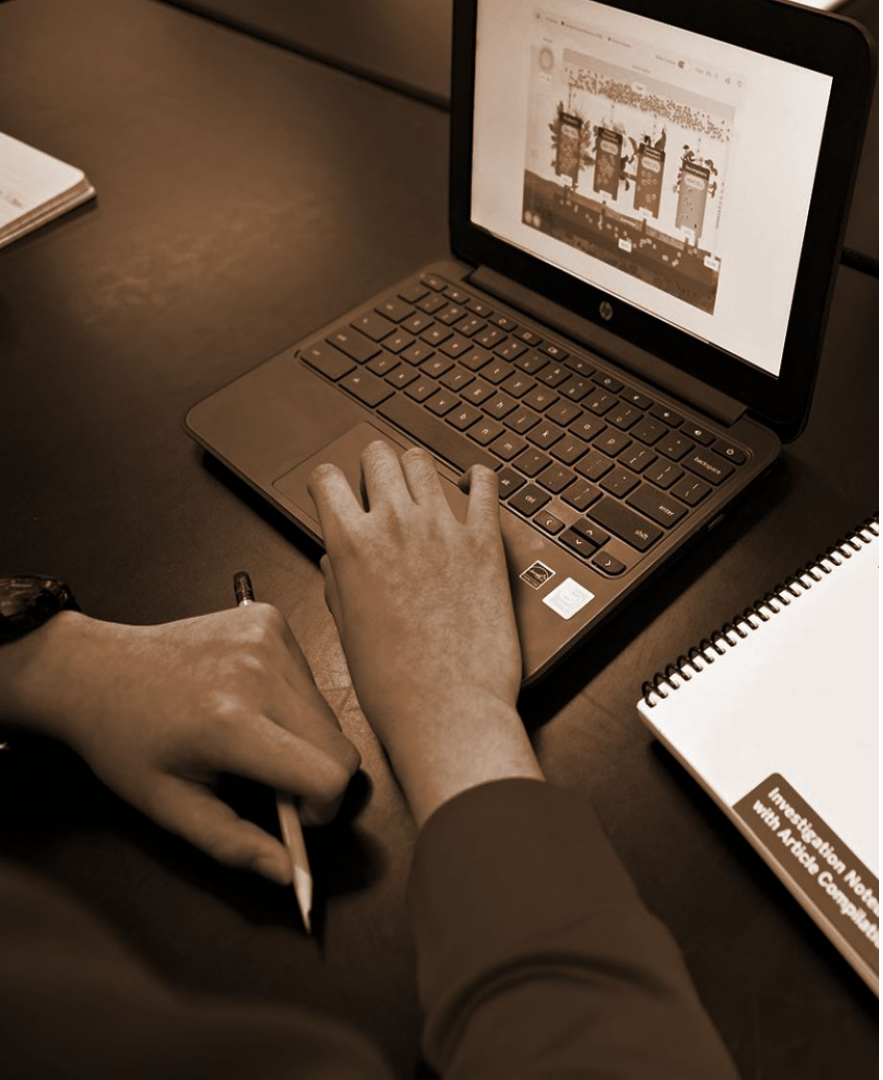


Plan for the day

- Introduction and overview of approach
- Embedded supports in an instructional sequence
- Differentiation for reading
- Closing

Norms: Establishing a culture of learners

- **Take risks:** Ask any questions, provide any answers.
- **Participate:** Share your thinking, participate in discussion and reflection.
- **Be fully present:** Unplug and immerse yourself in the moment.
- **Physical needs:** Stand up, get water, take breaks.



Plan for the day

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What is text complexity?

Pg. 1

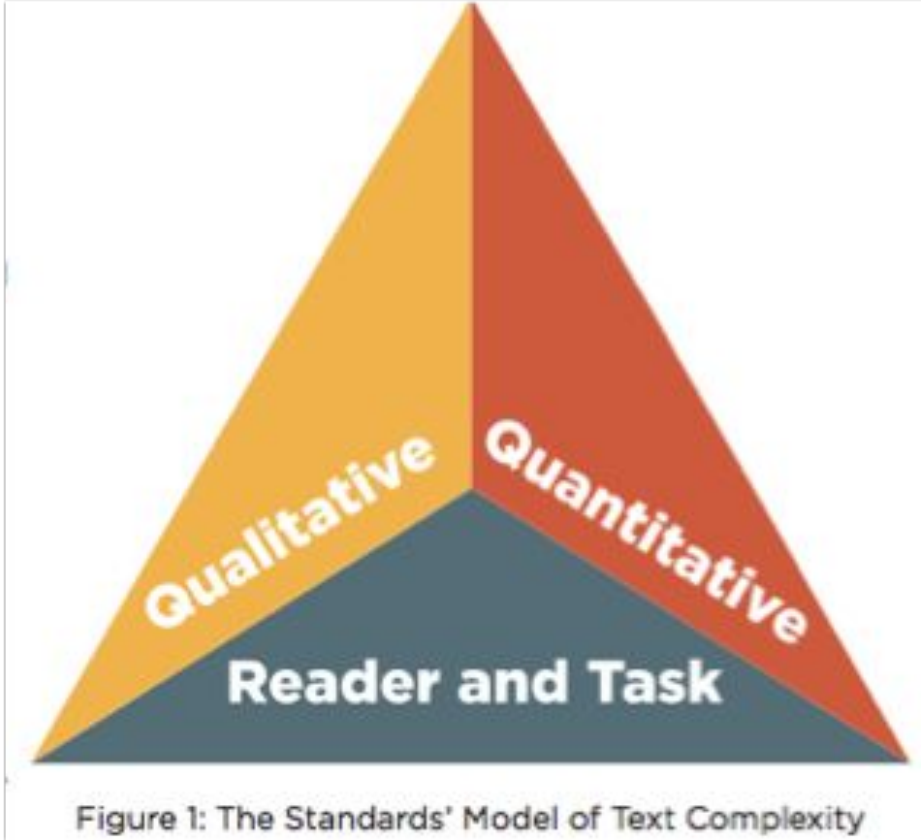


Figure 1: The Standards' Model of Text Complexity

Qualitative Measures

- Knowledge demands
- Text structure (including visual representations)

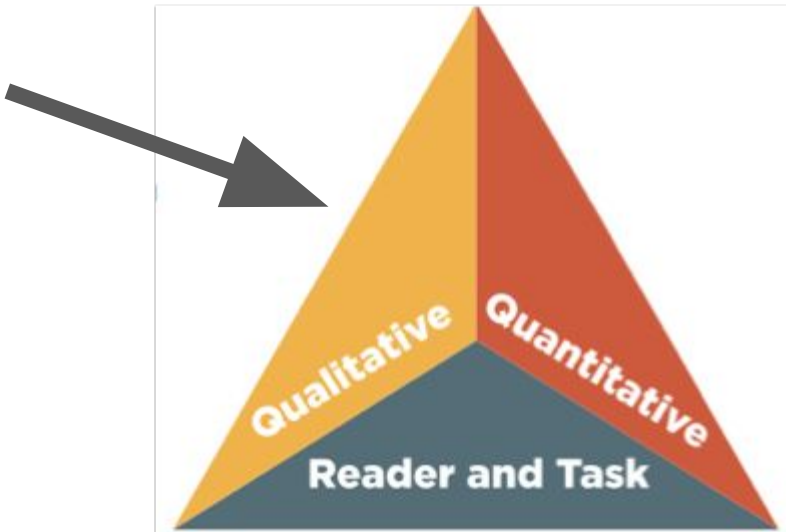


Figure 1: The Standards' Model of Text Complexity

Qualitative Measures

Knowledge demands

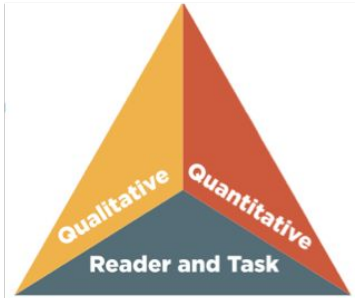


Figure 1: The Standards' Model of Text Complexity

Lipase-Catalyzed Production of Biodiesel[1]

Lloyd A. Nelson, Thomas A. Foglia*, and William N. Marmer
USDA, ARS, ERRC, Wyndmoor, Pennsylvania 19038

ABSTRACT: Lipases were screened for their ability to transesterify triglycerides with short-chain alcohols to alkyl esters. The lipase from *Mucor miehei* was most efficient for converting triglycerides to their alkyl esters with primary alcohols, whereas the lipase from *Candida antarctica* was most efficient for transesterifying triglycerides with secondary alcohols to give branched alkyl esters. Conditions were established for converting tallow to short-chain alkyl esters at more than 90% conversion. These same conditions also proved effective for transesterifying vegetable oils and high fatty acid-containing feedstocks to their respective alkyl ester derivatives.
JAOCS 73, 1191–1195 (1996).

KEY WORDS: Alcoholysis, alkyl esters, biodiesel, grease, lipase, rapeseed, soy oil, tallow.

There have been a considerable number of studies that report transesterification and interesterification reactions by using lipases with and without organic solvents (1–6). Recently, research has centered on the use of lipases to transesterify higher-molecular weight fatty acids to alkyl esters. Lipase-catalyzed alcoholyses of sunflower oil (7), rapeseed oil (8), soybean oil, and beef tallow (9) have been reported. The alcoholysis reactions generally involve primary alcohols with a few scattered reports on transesterifications with secondary alcohols. Another way of improving cold-temperature properties of tallow esters would be to substitute methanol with branched higher-molecular weight alcohols.

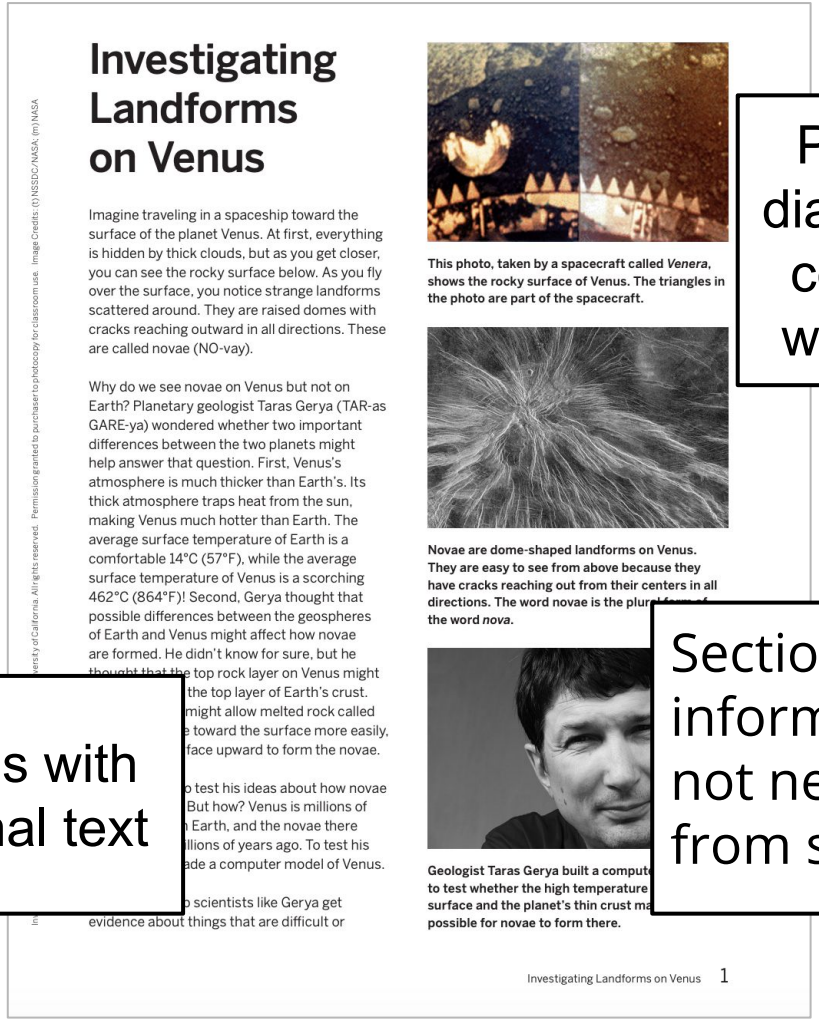
Though efficient in terms of reaction yield and time, the chemical approach to synthesizing alkyl esters (18–20) from triglycerides has drawbacks, such as difficulties in the recovery of glycerol, the need for removal of salt residue, and the energy-intensive nature of the process. On the other hand, biocatalysts allow for synthesis of specific alkyl esters, easy recovery of glycerol, and transesterification of glycerides with high free fatty acid (FFA) content. This technology could be extended to transesterification of greases, which are even less expensive than soybean oil and tallow. This process can further be used to synthesize other value-added products, including biodegradable lubricants and additives for fuel and lubricants. Lipase can also be used to introduce other functionalities into alkyl esters that may further improve the cold-temperature properties of the resulting biodiesel. In this paper, we report the lipase-catalyzed synthesis of normal and branched-chain alkyl esters of agriculturally derived triglycerides (TG): vegetable oils, tallow, and restaurant grease.

MATERIALS AND METHODS

Materials. Tallow was obtained from Chemol Corp. (Greens-

Qualitative Measures

Text structure (including visual representations)



Investigating Landforms on Venus

Imagine traveling in a spaceship toward the surface of the planet Venus. At first, everything is hidden by thick clouds, but as you get closer, you can see the rocky surface below. As you fly over the surface, you notice strange landforms scattered around. They are raised domes with cracks reaching outward in all directions. These are called novae (NO-vay).

Why do we see novae on Venus but not on Earth? Planetary geologist Taras Gerya (TAR-as GARE-ya) wondered whether two important differences between the two planets might help answer that question. First, Venus's atmosphere is much thicker than Earth's. Its thick atmosphere traps heat from the sun, making Venus much hotter than Earth. The average surface temperature of Earth is a comfortable 14°C (57°F), while the average surface temperature of Venus is a scorching 462°C (864°F)! Second, Gerya thought that possible differences between the geospheres of Earth and Venus might affect how novae are formed. He didn't know for sure, but he thought that the top rock layer on Venus might
the top layer of Earth's crust.
might allow melted rock called
toward the surface more easily,
face upward to form the novae.

test his ideas about how novae
But how? Venus is millions of
Earth, and the novae there
illions of years ago. To test his
ade a computer model of Venus.

scientists like Gerya get
evidence about things that are difficult or

This photo, taken by a spacecraft called *Venera*, shows the rocky surface of Venus. The triangles in the photo are part of the spacecraft.

Novae are dome-shaped landforms on Venus. They are easy to see from above because they have cracks reaching out from their centers in all directions. The word novae is the plur
the word *nova*.

Geologist Taras Gerya built a comput
to test whether the high temperature
surface and the planet's thin crust ma
possible for novae to form there.

Investigating Landforms on Venus 1

Pictures or diagrams that correspond with the text

Paragraphs with informational text

Sections for different information. Does not need to be read from start to finish.

Quantitative Measures

- Sentence length
- Vocabulary load

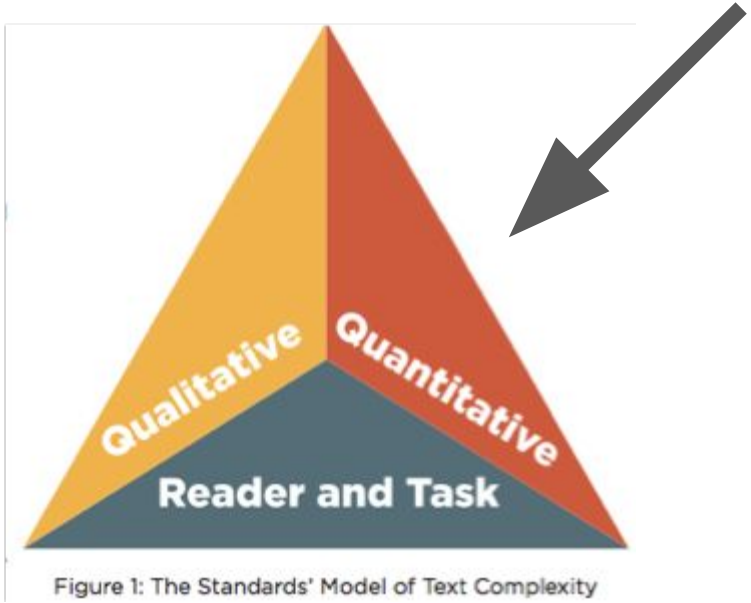


Figure 1: The Standards' Model of Text Complexity

Quantitative Measures

- Sentence length
- Vocabulary load

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 found here.

Pg. 3

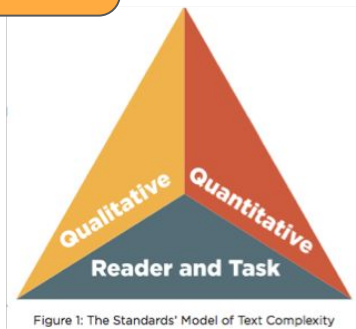


Figure 1: The Standards' Model of Text Complexity

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.

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Sentence lengths: 27, 36

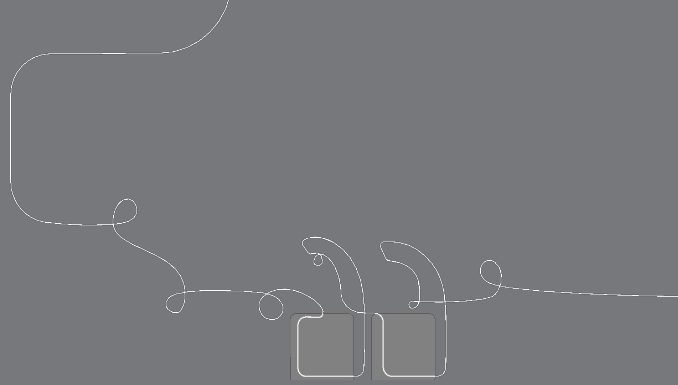
Hard words and phrases: 11

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 found here.

Sentence lengths: 17, 7, 34, and 8

Hard words and phrases: 5

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.



Questions?

Key Takeaway

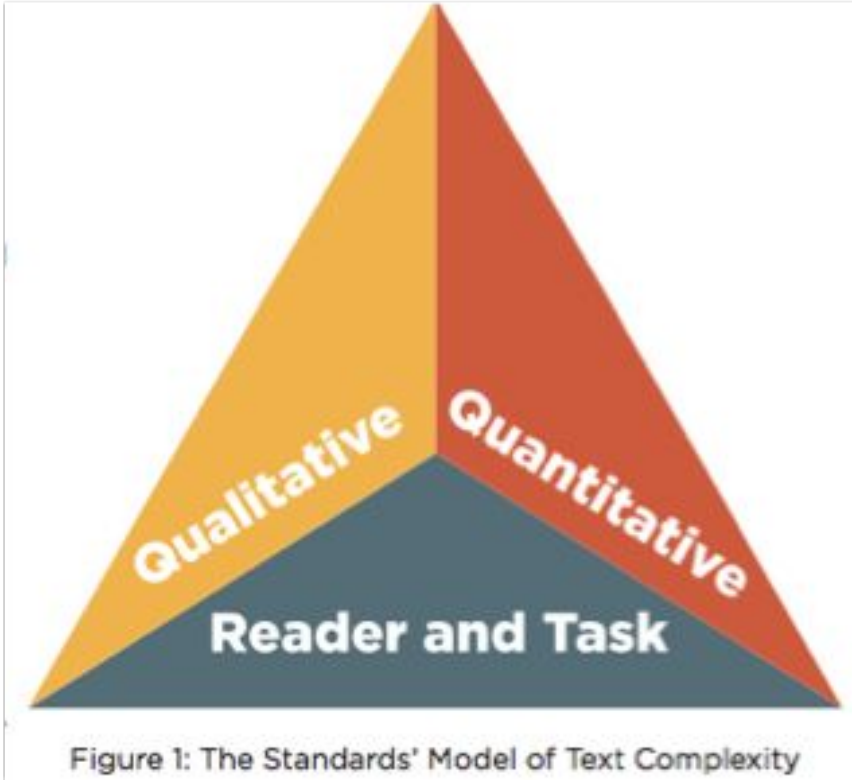


Figure 1: The Standards' Model of Text Complexity

Reader and Task Measures

- Background, experience
- Purpose, assignment
- Motivation

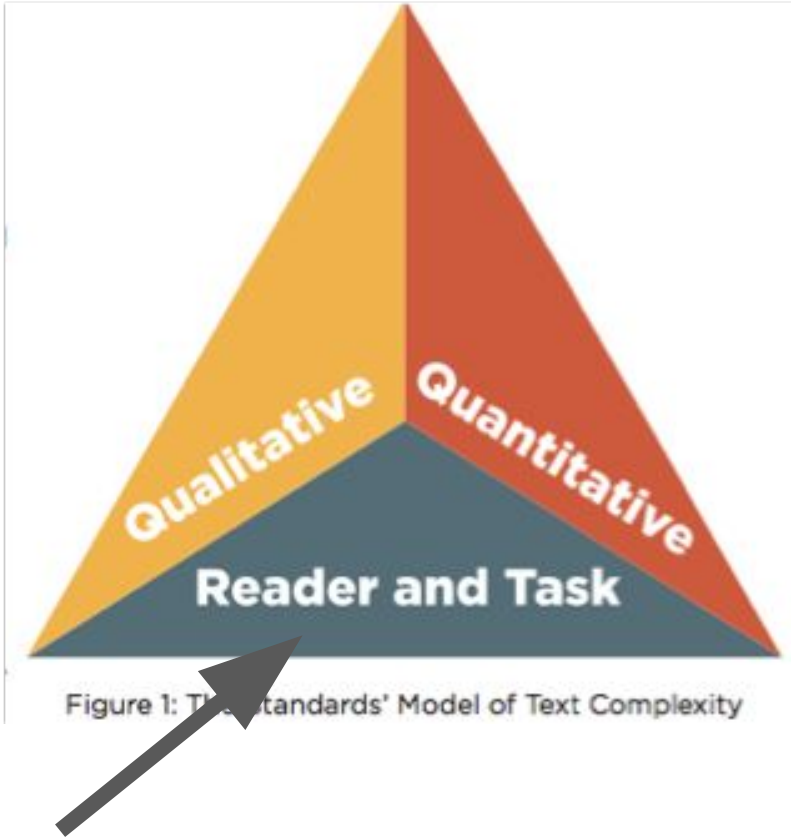
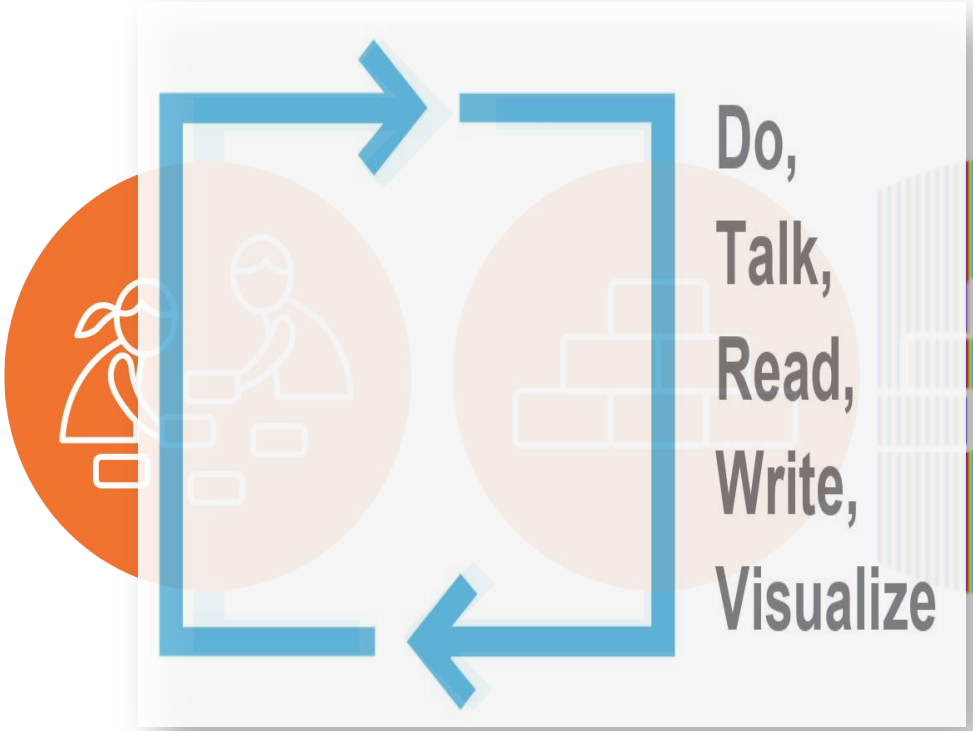


Figure 1: Th tandards' Model of Text Complexity



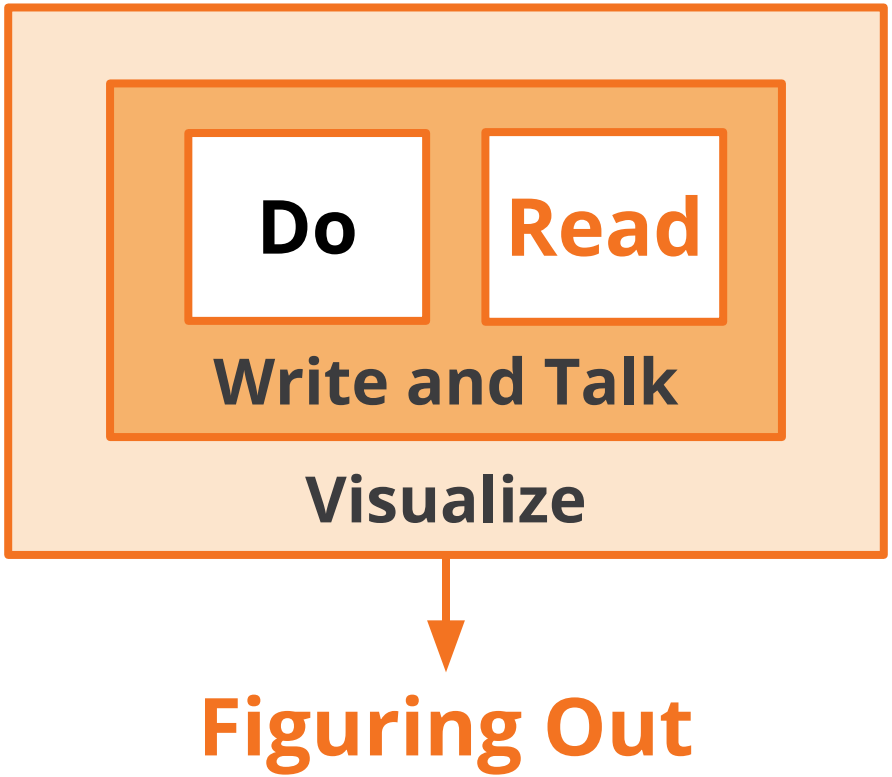
Introduce a **phenomenon** and a related problem

Collect **evidence** from multiple sources

Build increasingly complex **explanations**

Apply knowledge to a different context

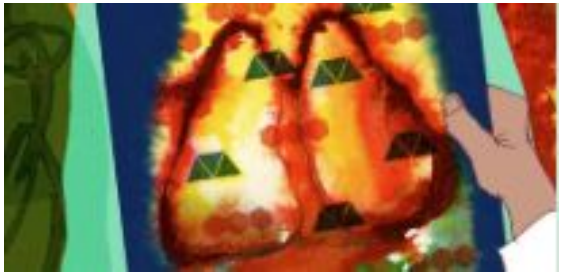
Multimodal Instruction



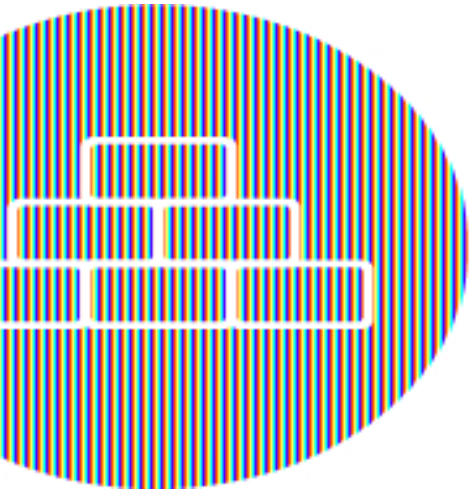
Reading across Amplify Science units

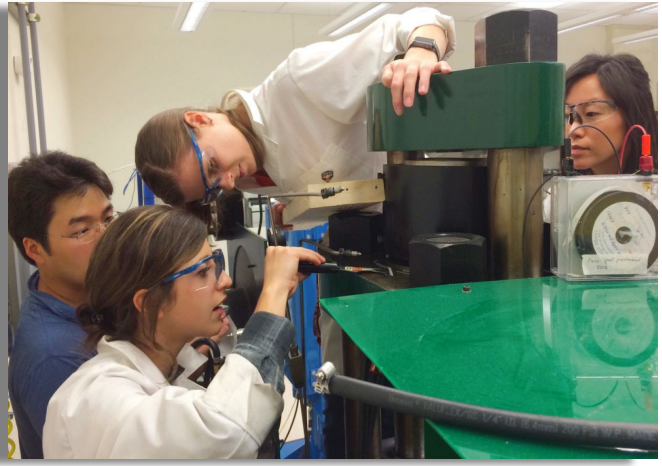
Students encounter between 1-10 different complex texts in each unit.




In a course: average 5 texts x 9 units = minimum 40 opportunities to engage with complex texts in one school year





Reading in Amplify Science

Students are apprenticed into reading like scientists—that is, reading actively, curiously, and critically, with a focus on making meaning and using the text as a source of evidence.

Science texts and data are often complex and research shows that annotation is an important way for a reader to stop and think carefully about what they are reading.

Let’s see how this is done in Amplify Science...

Sample annotation

Surprising things sometimes wash up on shore, and this can happen all over the world. During a powerful storm In 1990, containers packed with 61,000 shoes fell off a cargo ship travelling across the Pacific Ocean and eventually washed up on beaches in Oregon, Hawaii, and Japan. These locations are hundreds or thousands of miles away from the place where the shoes were spilled. How did the shoes make their way to these locations?

How did the shoes wash up at these different locations?

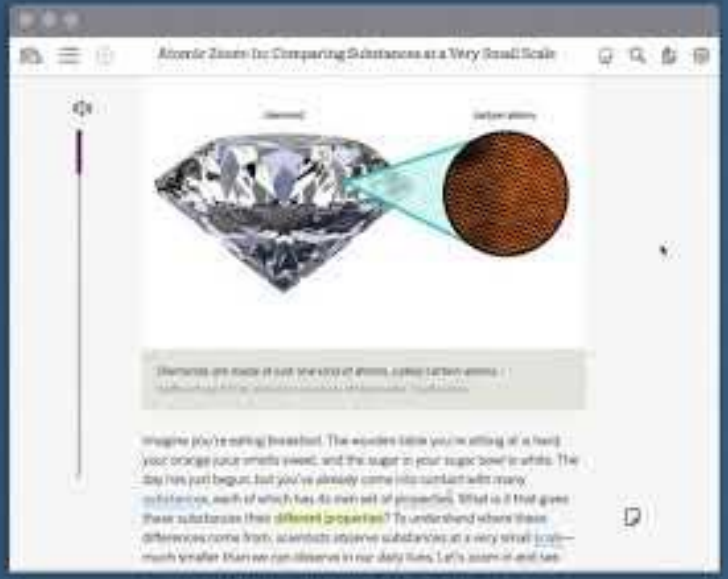
If you look at a photograph of Earth, most of what you see is the big, blue ocean—after all, the ocean covers 71% of our planet. In a photograph or on a map, it may not look like the ocean moves very much, but the opposite is actually true. The water in the ocean is always moving from place to place, carrying objects and organisms wherever it goes. Ocean water doesn't move randomly; it flows in consistent patterns. Scientists call ocean water flowing in

ocean water flowing in a continuous path [corriente oceánica: agua del océano que fluye en una ruta continua]

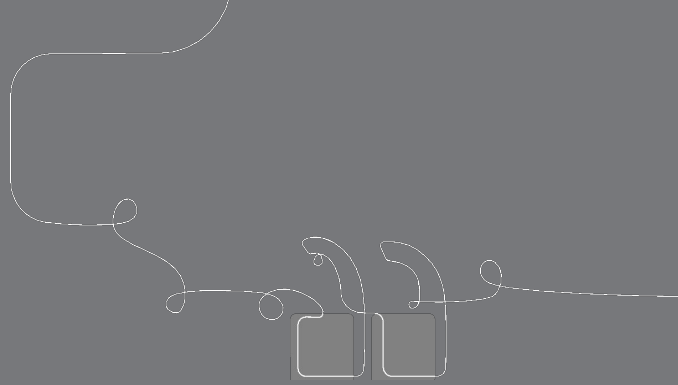
a continuous path an ocean current. Currents carry all kinds of objects and organisms all over the world. The shoes made their way across the ocean with the help of ocean currents.

Currents must have carried the shoes!

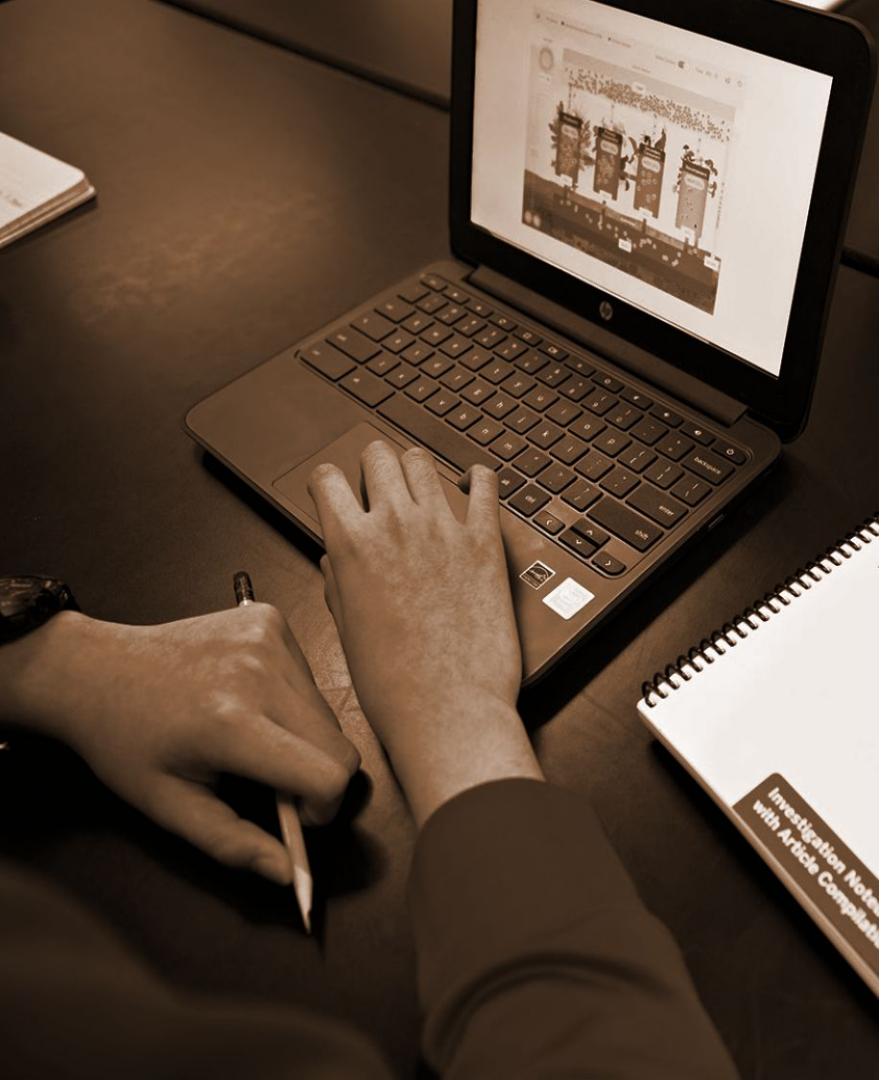
You can also **add an annotation** to an **image** by **pressing anywhere** on the image. You will then be prompted to **add a note**.



tinyurl.com/AMPHHE-03



Questions?



Plan for the day

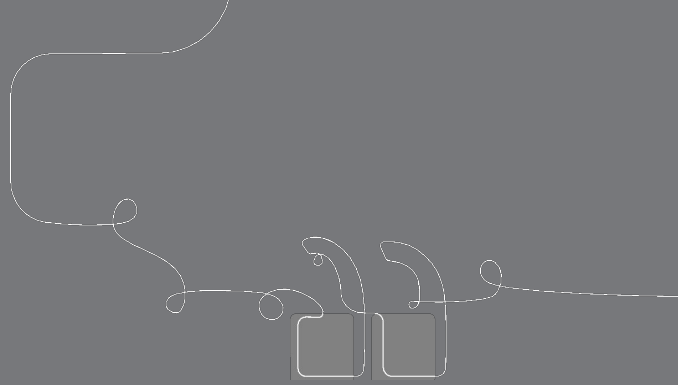
- Introduction and overview of approach
- Embedded supports in an instructional sequence
- Differentiation for reading
- Closing

Thinking about the role of texts in your class

Reflect-Type-Chat

- Reflect on the purpose for reading and how reading helped your students develop understanding.

- Consider the surrounding activities/lessons that complemented the reading, and how.



Exemplar instructional sequence

19 Lessons

Traits and Reproduction

Why do Darwin's bark spider offspring have different silk flexibility traits even though they have the same parents?

Scientists and engineers are investigating possible ways spider silk can be used for medical purposes, such as for artificial tendons. Students act as student geneticists to investigate what causes variation in spider silk traits. Specifically, they explain why parent spiders have offspring with widely varied silk flexibility traits. They uncover the roles of proteins and genes and the way that genes are inherited.

Traits and Reproduction

@Home Lesson 2

AmplifyScience

Remember that we are investigating differences in the **silk flexibility trait** of a spider family.

In the previous lesson, we investigated differences in **traits** by observing the **cells** of different spiders in the Sim.

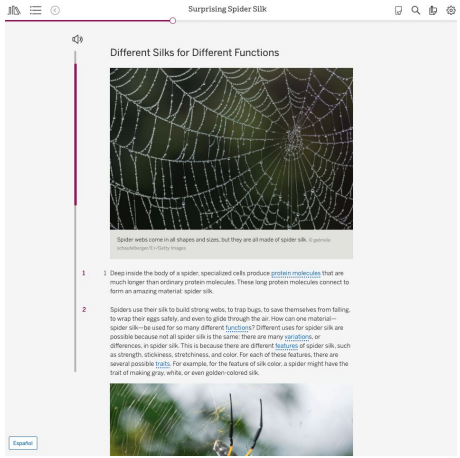
Today, we will be investigating this question:

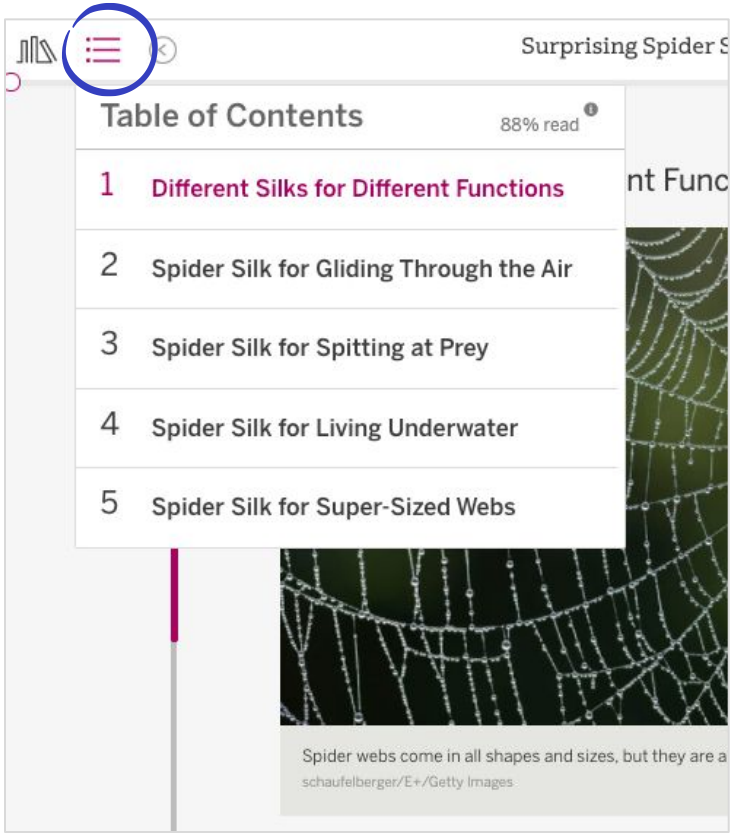
Investigation Question:
What determines an organism's traits at the molecular scale?

To understand where an organism's traits come from, we are going to zoom in to cells to see what is happening at a **molecular scale**.

Molecular scale means at the size of molecules. Molecules are the tiny structures that make up cells.

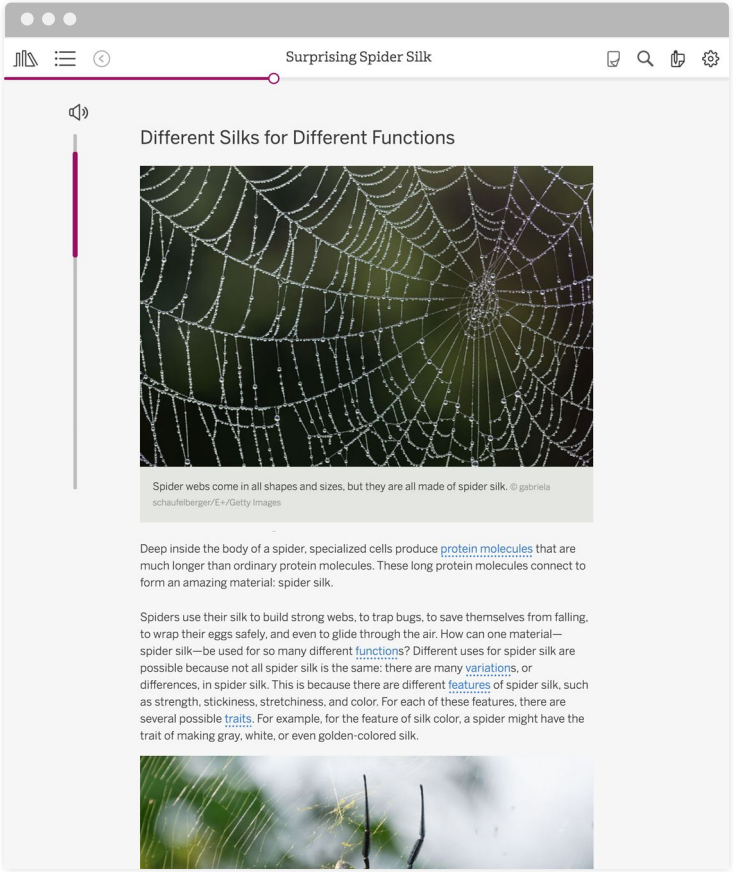
Next you will read a short article from a set called “Surprising Spider Silk”. Check with your teacher about how you will access articles in this @Home Unit.





The article you are reading today is an article set. It has 5 parts.

You will read **Chapter 1: Different Silks for Different Functions** and one other article of your choice.



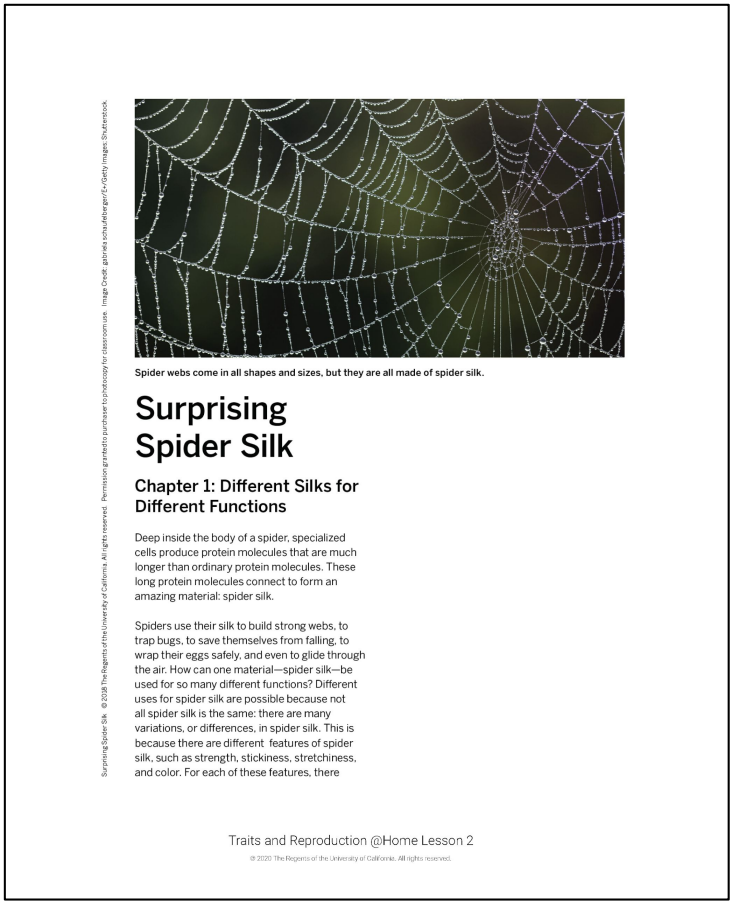
These articles will help you understand some of the important things that scientists already know about **variation** in spider silk.

Active Reading Guidelines

1. Think carefully about what you read. Pay attention to your own understanding.
2. As you read, annotate the text to make a record of your thinking. Highlight challenging words and add notes to record questions and make connections to your own experience.
3. Examine all visual representations carefully. Consider how they go together with the text.
4. After you read, discuss what you have read with others to help you better understand the text.

The Active Reading Guidelines can help you read actively.

How will you use these guidelines when you read today?



Spider webs come in all shapes and sizes, but they are all made of spider silk.

Surprising Spider Silk

Chapter 1: Different Silks for Different Functions

Deep inside the body of a spider, specialized cells produce protein molecules that are much longer than ordinary protein molecules. These long protein molecules connect to form an amazing material: spider silk.

Spiders use their silk to build strong webs, to trap bugs, to save themselves from falling, to wrap their eggs safely, and even to glide through the air. How can one material—spider silk—be used for so many different functions? Different uses for spider silk are possible because not all spider silk is the same: there are many variations, or differences, in spider silk. This is because there are different features of spider silk, such as strength, stickiness, stretchiness, and color. For each of these features, there

Read and **annotate** “Chapter 1: Different Silks for Different Functions” and one other chapter of your choice.

“**Surprising Spider Silk**” printed article or Lesson 1.3, Activity 2

You'll need a **partner** to talk with.

You and your partner will discuss your annotations, following the instructions on the next slide.

Your partner could be a classmate on the phone or someone at home with you.

Discussing Annotations

1. Prepare to Share

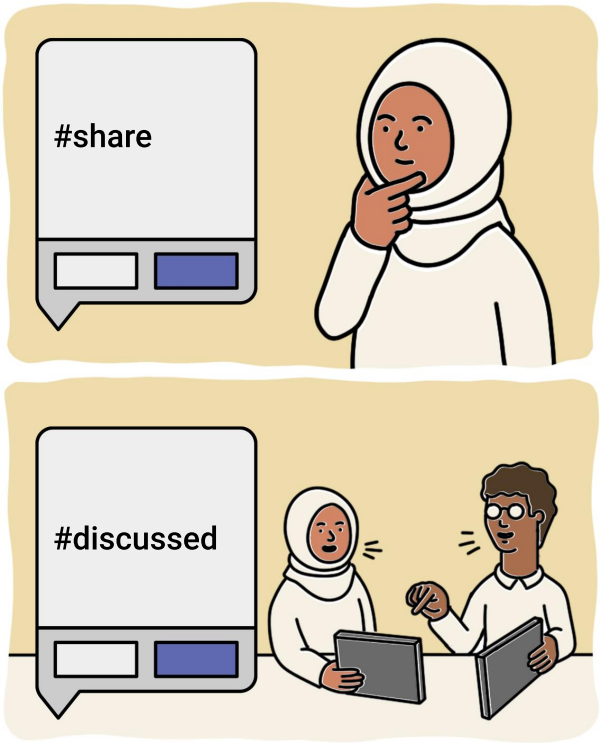
Choose an interesting question or connection to share with a partner.

Tag it with **#share**.

2. Discuss

Talk about your chosen annotation with a partner.

Tag it with **#discussed** if you were able to resolve your questions.



The **protein molecules** that make up the spider silk allow the spiders to do many different **behaviors** that can increase the odds of survival and reproduction.

These behaviors include ways of catching prey, moving, and protecting their eggs and young.

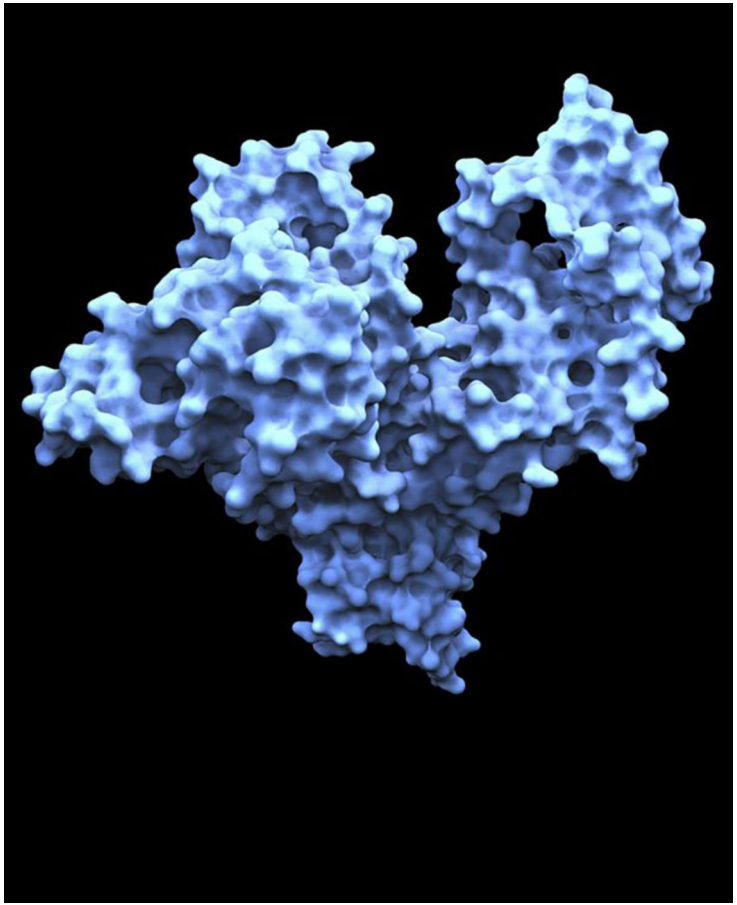
This is the end of the partner work in this lesson.

There are many types of proteins, and they all have different functions.

protein
molecule

a type of large molecule that performs important functions inside organisms

There are **proteins** that help reactions occur inside cells. Other proteins store nutrients or help move molecules. Overall, proteins play an important role in keeping an organism alive.

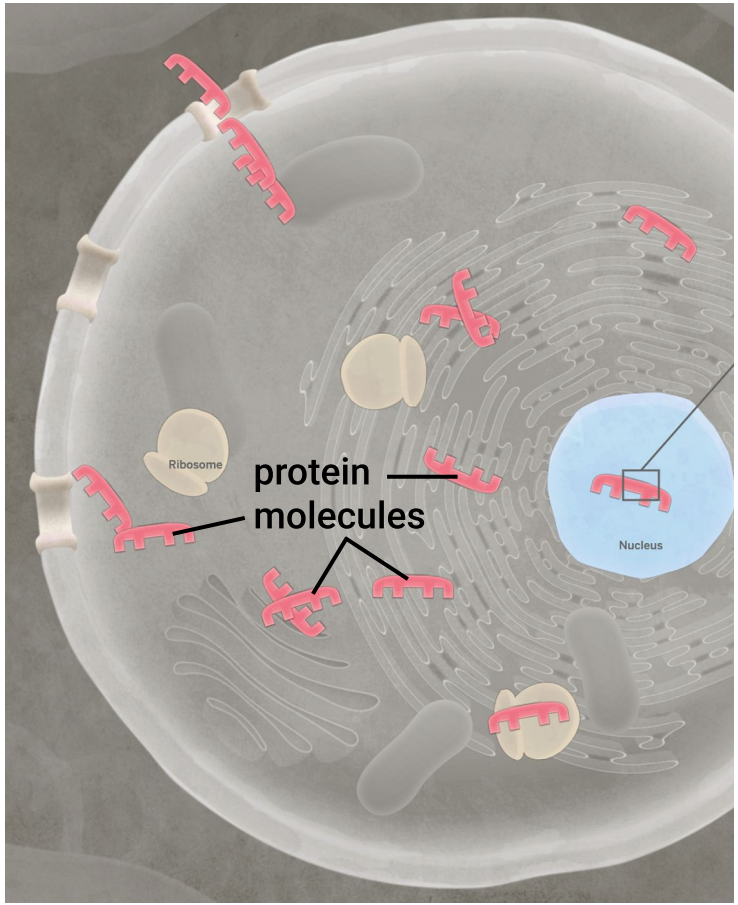


This **model** of a protein looks different than the model in the Sim. It shows the more realistic, three-dimensional shape of a protein.

You just read about the types of silk that different spiders can make. Now, we'll use a **model** to learn how protein molecules determine silk flexibility in Darwin's bark spiders.

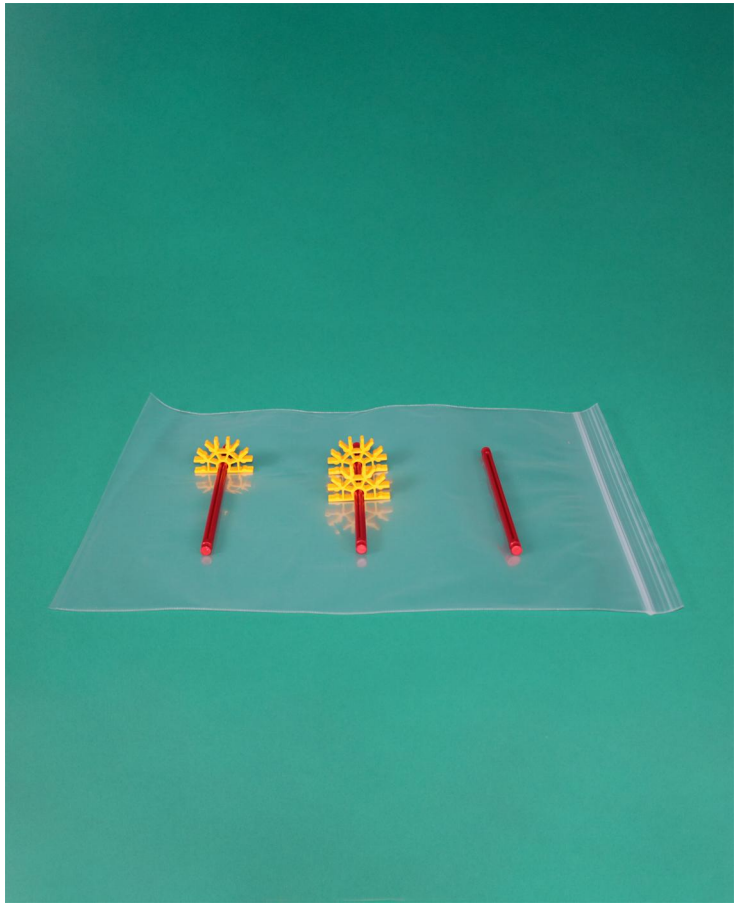
Remember, we are investigating this question:

Investigation Question:
What determines an organism's traits at the molecular scale?



Protein molecules are too small to observe directly. Scientists use **models** to represent things on the molecular scale, which are difficult to observe.

In the Sim, we saw this model of **protein molecules.**

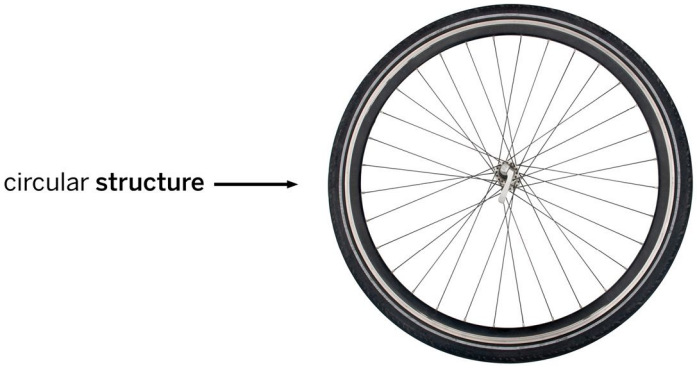


Today, you will watch a video showing a **physical model** of protein molecules. This will help you learn more about the **structure** of protein molecules and how they connect to each other.

As you watch the video, think about the structure of the protein molecules that are part of the model.

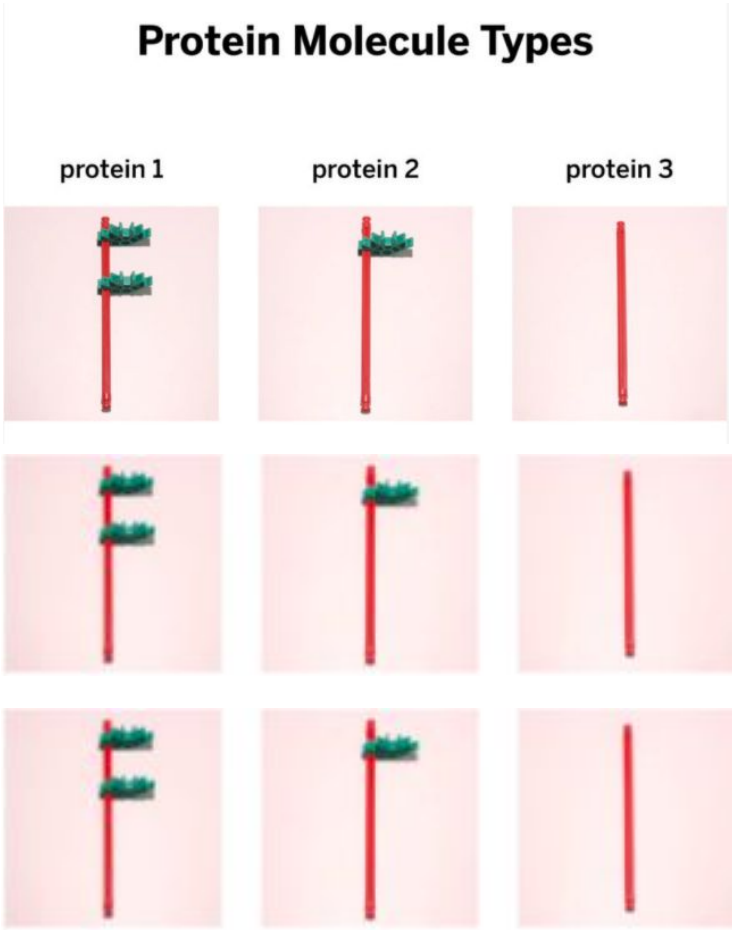
structure

the way something is shaped or constructed



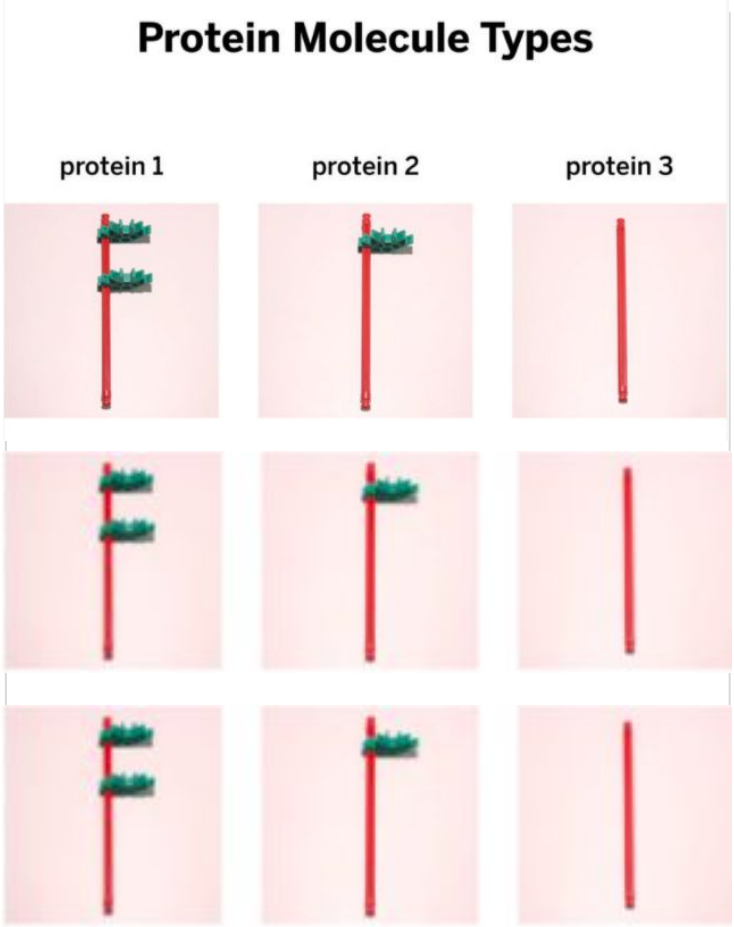
In science, when we describe the **structure** of an object, we describe its shape.

For example, this wheel has a circular structure.



These are the **protein molecules** you will see in the video.

The person in the video will try to connect protein molecules of the same type to make a strand that represents spider silk.



Think about this question.

Which of these protein molecules do you think will form the most flexible strand when connected?

Name: _____ Date: _____

Building and Comparing Silk Strands

Observe as the person in the video tries to build silk using three different types of protein molecules. Answer the question in the second column. In the last column, sketch and describe each silk strand. Watch the video at tinyurl.com/AMPTR-03.

Proteins in silk strand	Did the proteins connect to form a strand?	Sketch the structure of the silk strand below
protein 1 		
protein 2 		
protein 3		

Compare the flexibility of the protein strands. Which protein do you think formed the most flexible strand? Explain your answer below.

_____

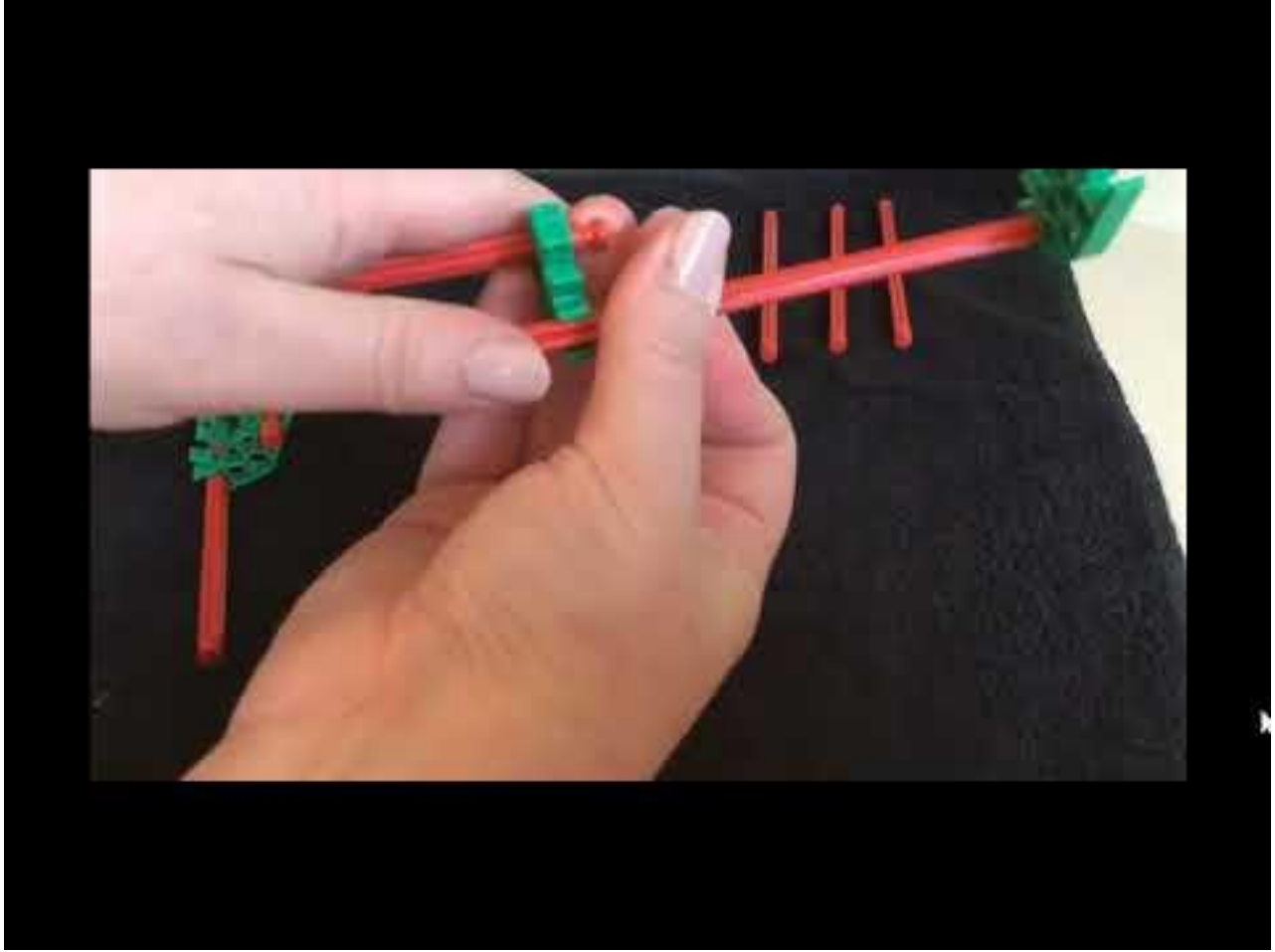
_____

_____

Traits and Reproduction @Home Lesson 2

Go to the Building and Comparing Silk Strands page.

Watch the video to see strands of silk built using the three different types of proteins. **Record** your observations.



Using the print version? Watch the video here: tinyurl.com/AMPTR-03

In the video, you saw that different protein structures had different functions or could do different things.

function

how something works

wheel's function:
to roll over the ground

A wheel illustrates both **structure** and **function.** Wheels roll across surfaces and can help move other objects. The structure of a wheel allows it to serve this function.

Think about these questions.

What did you notice about the **function** of the protein molecules in the model?

Did they all serve the same **function?**

In the model, the **protein's shape** affected how it **connected** with other proteins, making the strands more or less flexible.

One protein's structure connected in multiple places, forming a silk strand with **low flexibility**. Another protein's structure only connected in one place, forming a silk strand with **high flexibility**.

Observing the model of spider silk protein molecules helps us understand this **key concept**:

1. The function of a protein molecule depends on its structure and how it interacts with other protein molecules.

End of @Home Lesson

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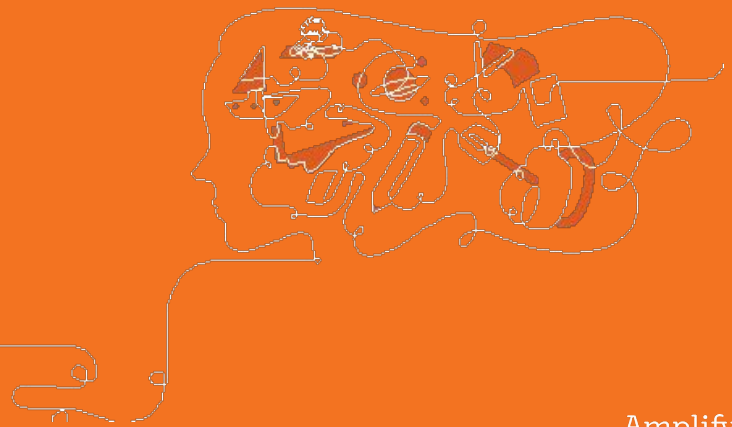
BREAK (15 minutes)

Reflecting on exemplar lesson



Think-Type-Chat:

- What was complex about the text that was utilized during the instructional sequence?
- How were students supported in accessing the text?

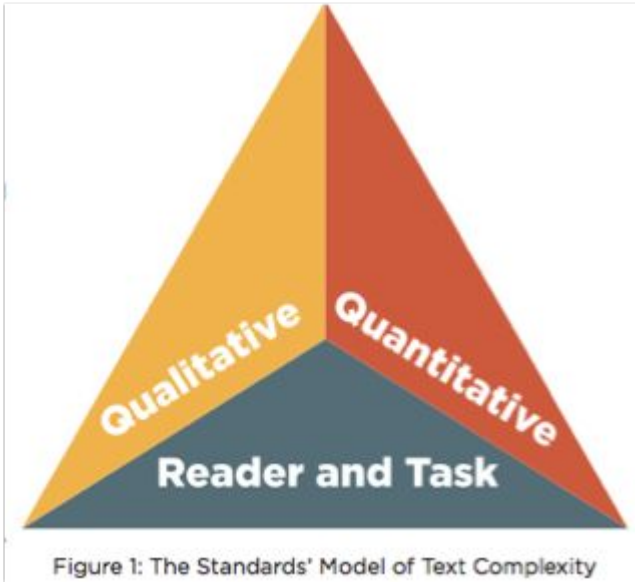
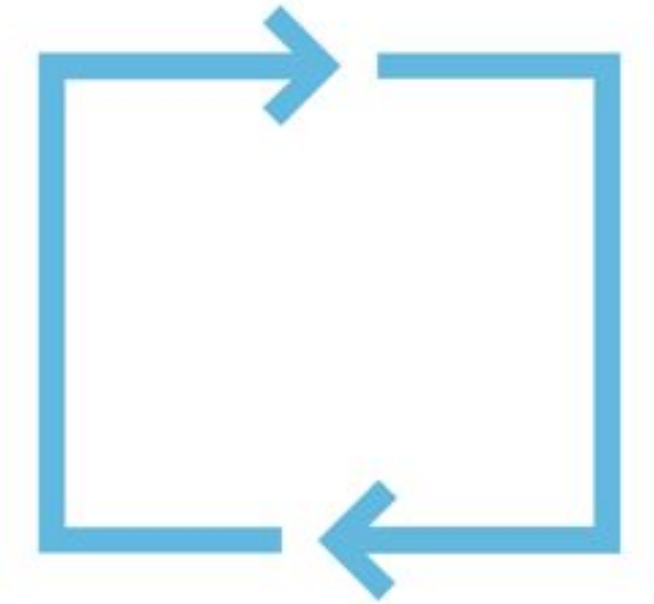


Figure 1: The Standards' Model of Text Complexity

Multimodal learning as an embedded support

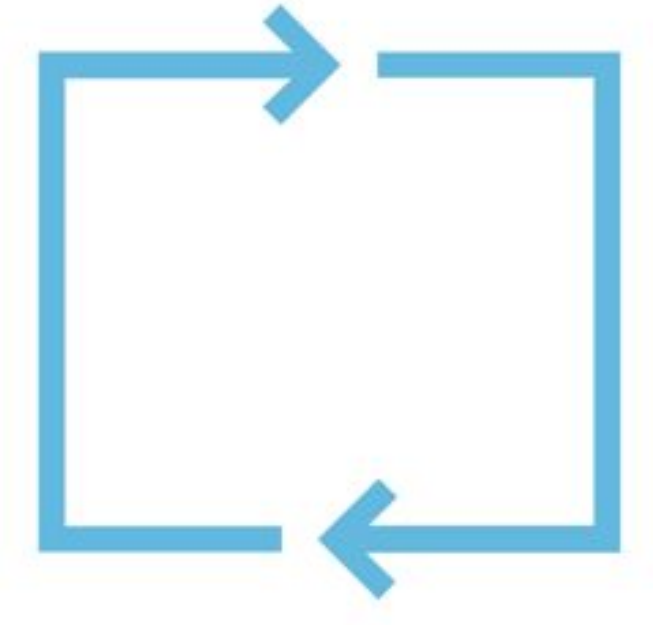
Multimodal learning

Gathering evidence over multiple lessons



Do,
Talk,
Read,
Write,
Visualize

Evidence sources work together to support developing scientific understandings



Teaching tip

- Every evidence source plays an important role in student learning.
- Be sure to teach every activity in order!

Text roles & active reading as embedded supports

Text Roles/Functions for Inquiry-Based Investigations

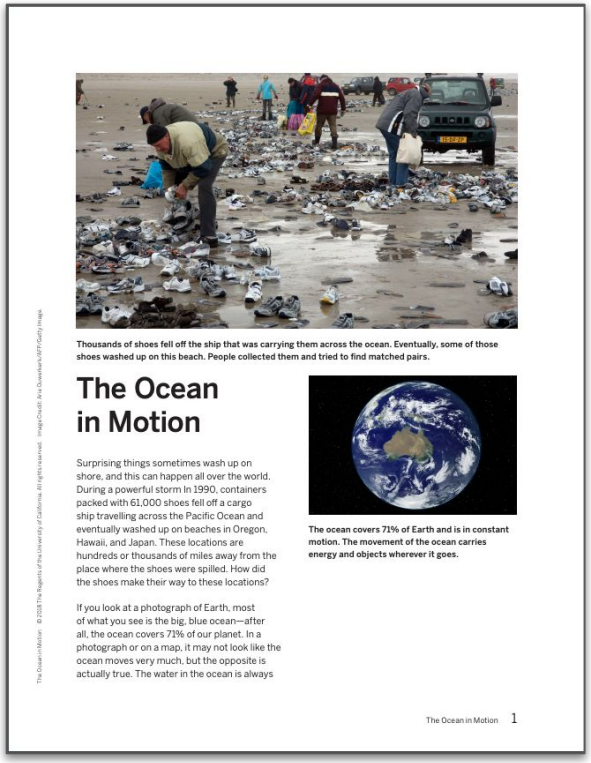
Provide context for inquiry-based investigations	**Scientists read and interpret others' data and findings**
Deliver content	**Illustrate phenomenon that would otherwise be unobservable; opportunities to apply what students are learning**
Model scientific processes	**Model inquiry processes; Modeling scientific dispositions; Depicting scientists and their work**
Support secondhand investigations (collection of textual data)	**Provides data for interpretation represented with graphs, pictures, tables; communicating visuals information based in data**
Support first-hand investigations (collection of empirical data)	**Providing students information to supplement their empirical (first-hand) studies; Support the design and implementation of 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.

Embedded supports

Active Reading

- Consistent routine across units
- First read and second read
- Partner discussion of annotations
- Digital reading supports



Thousands of shoes fell off the ship that was carrying them across the ocean. Eventually, some of those shoes washed up on this beach. People collected them and tried to find matched pairs.

The Ocean in Motion

The ocean covers 71% of Earth and is in constant motion. The movement of the ocean carries energy and objects wherever it goes.

Surprising things sometimes wash up on shore, and this can happen all over the world. During a powerful storm In 1990, containers packed with 61,000 shoes fell off a cargo ship travelling across the Pacific Ocean and eventually washed up on beaches in Oregon, Hawaii, and Japan. These locations are hundreds or thousands of miles away from the place where the shoes were spilled. How did the shoes make their way to these locations?

If you look at a photograph of Earth, most of what you see is the big, blue ocean—after all, the ocean covers 71% of our planet. In a photograph or on a map, it may not look like the ocean moves very much, but the opposite is actually true. The water in the ocean is always

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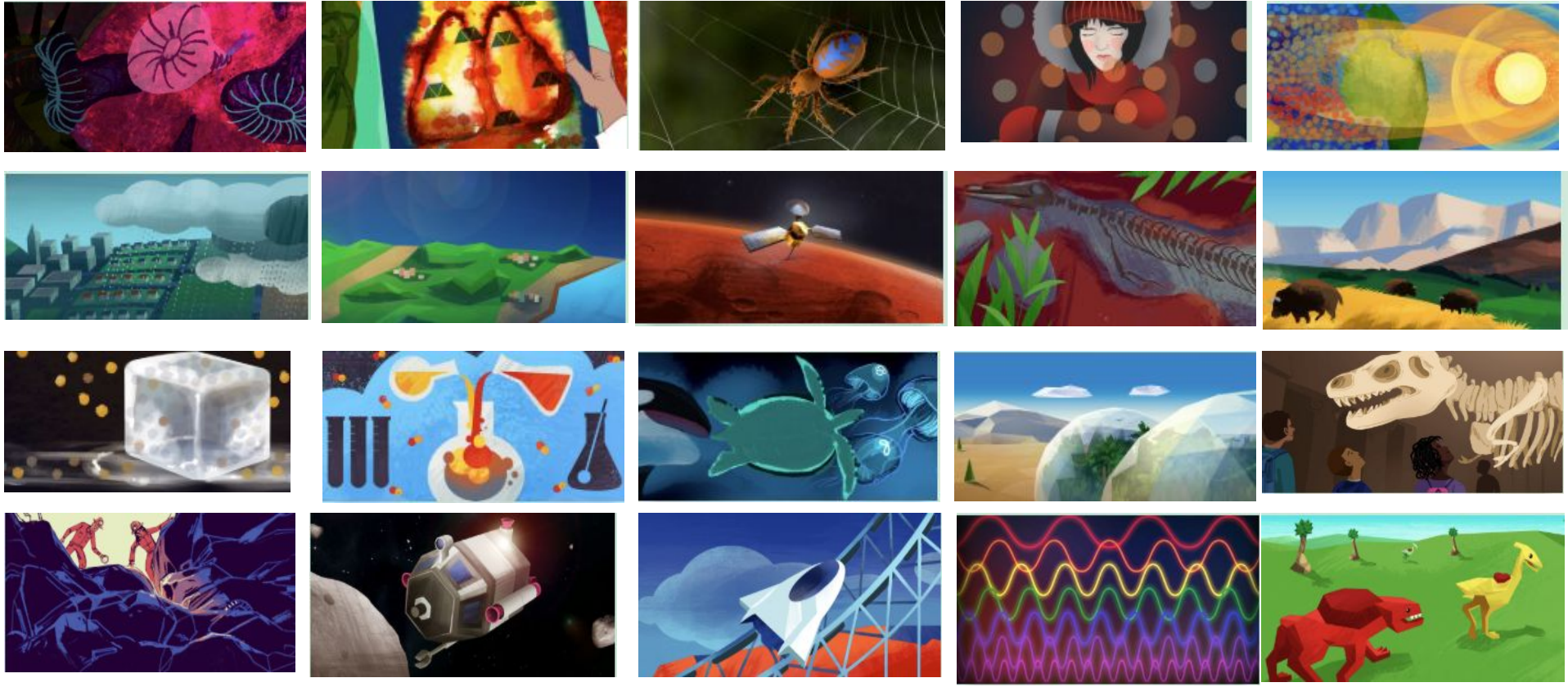


Explicit instruction in reading 56 times in each course x 3 years = at least 170 opportunities to practice Active Reading in middle school science

A typical Active Reading sequence

First Read	Second Read	Third Read
Independent, followed by paired and whole class discussion	Reading for a teacher-directed purpose, followed by a paired, complementary activity	Diving into the text for other, content-related purposes

Students read each article twice
The first read is always to annotate
(questions, connections, comments, etc.

Science and Engineering Practices

8. Obtaining, Evaluating, and Communicating Information

Subsequent reads are for a particular purpose

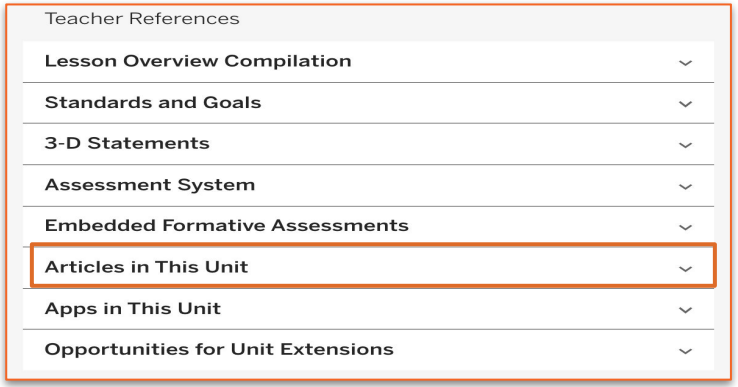
- To examine a specific visual representation
- To answer a question
- To find evidence to support a claim, or
- To draw conclusions across texts, etc.

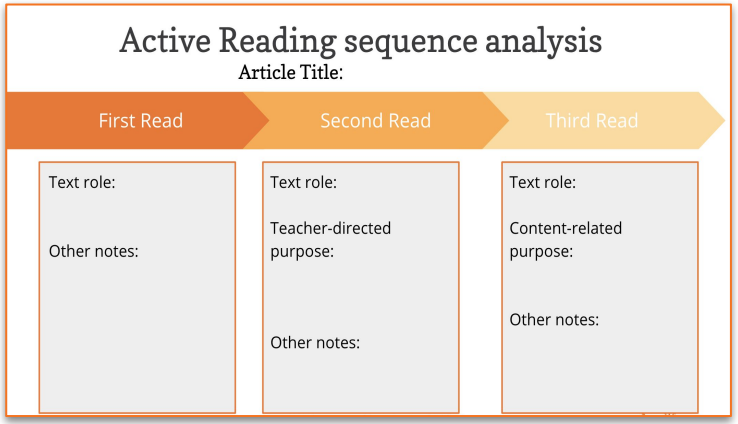
Active Reading

Analyzing an Active Reading Sequence

Directions:

- Join **breakout** room
- Navigate to the **current unit**
- Scroll down to the **Unit Guide**
- Click **Articles in This Unit**
- Choose an article & **read summary**
- Locate lessons & **analyze** active reading sequence using prompts on **collaborative slides** in groups





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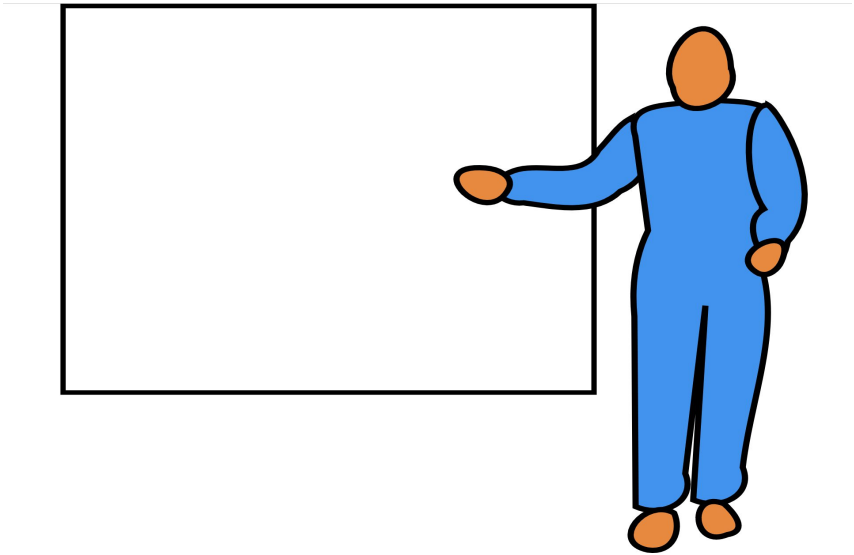
Active Reading sequence analysis

Article Title:

First Read	Second Read	Third Read
Text role: Other notes:	Text role: Teacher-directed purpose: Other notes:	Text role: Content-related purpose: Other notes:

Virtual group presentations

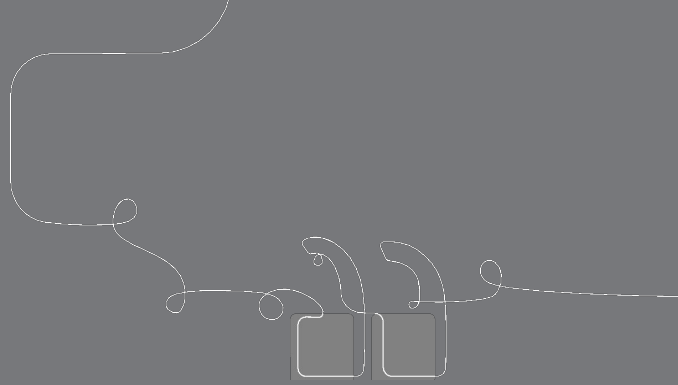
Summarize the key points related to the analysis of your chosen article.



Support for reading complex text

During various reading experiences

- Variety of reading experiences:
  - Short articles, homework, evidence cards, student notebook / digital platform
- Students are expected to continue using the basic components of Active Reading during these alternate reading experiences;
  - encouraged to annotate and are
  - often provided with guiding questions



Questions?

Attention to reader & task measures as an embedded support

Reader and Task Measures:

- Background, experience
- Purpose, assignment
- Motivation

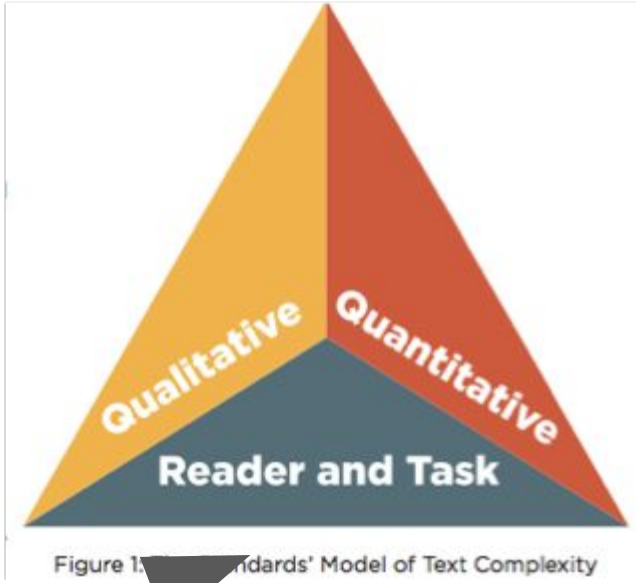


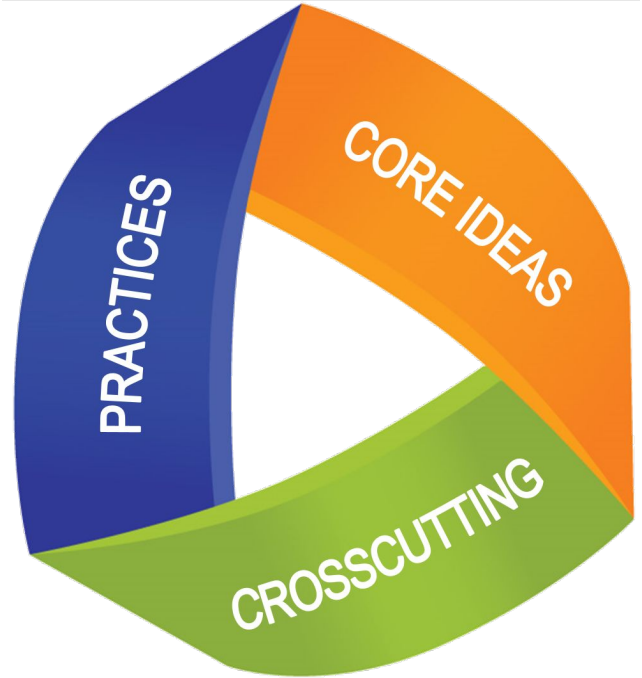
Figure 1: ...ndards' Model of Text Complexity

Our approach: Infuse disciplinary literacy practices into each unit

How?

- by paying explicit attention to the domain in which the literacy is taking place — not just science but geology or microbiology.
- by engaging students in literacy activities in each unit that are authentic to the practices of science

New York State Science Learning Standards (NYSSLS)



NYSSLS: Science 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

NYSSLS: Science Practices

1. **Asking questions and defining problems**
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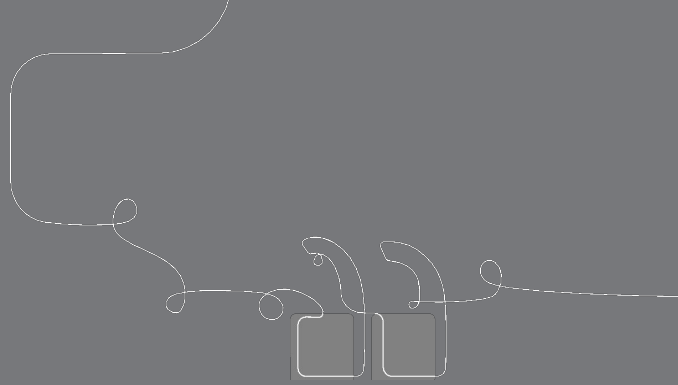
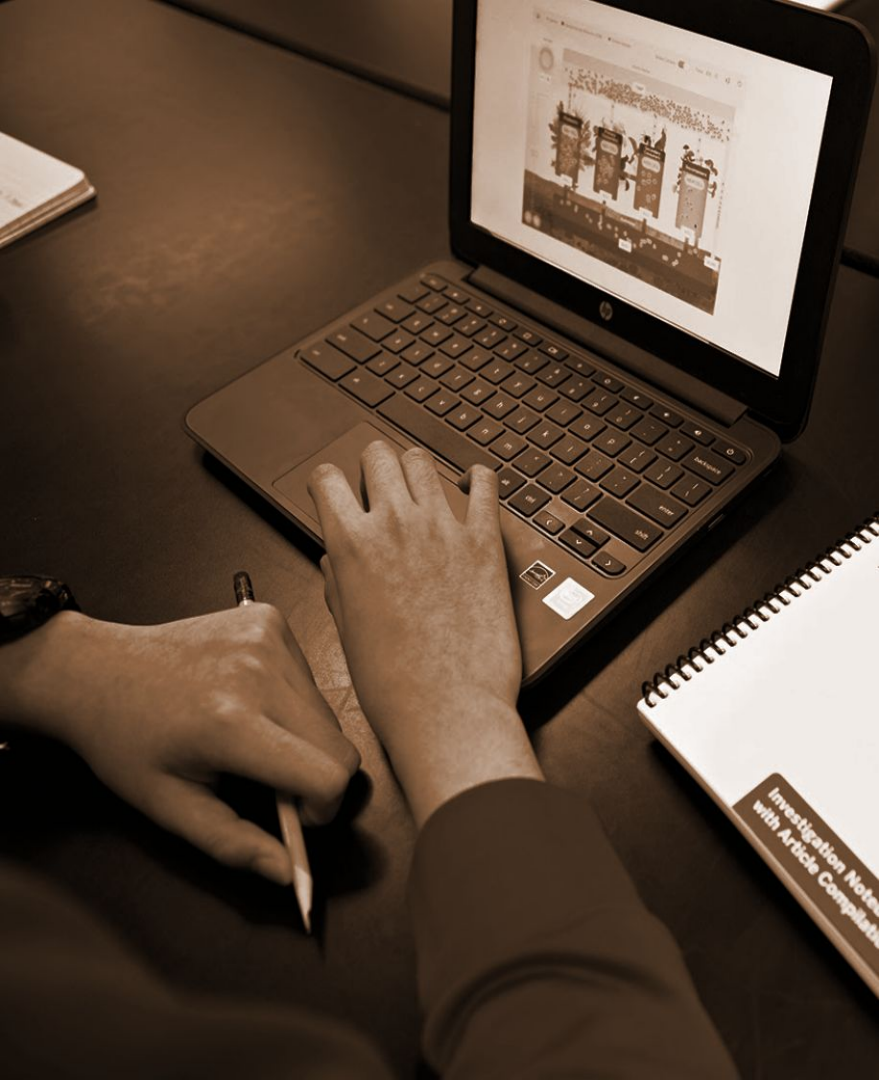


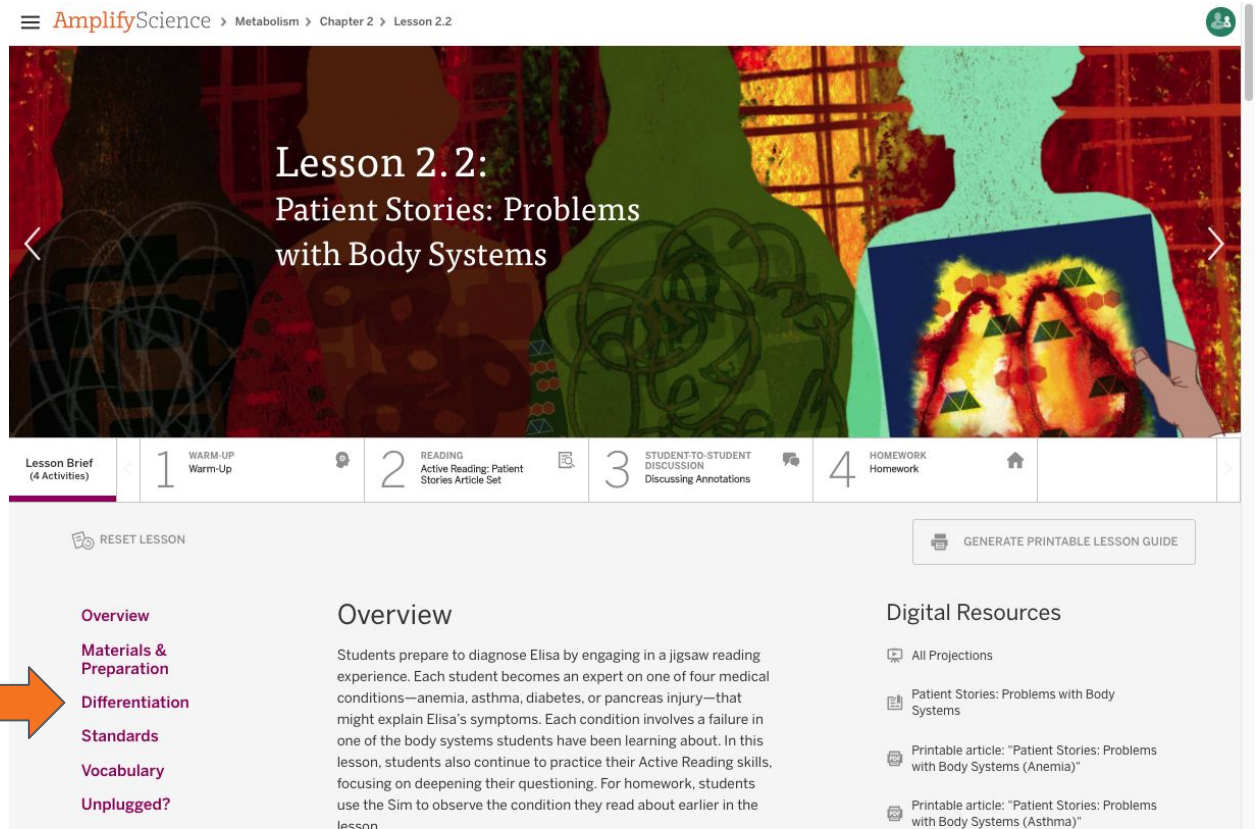
Questions?



Plan for the day

- Introduction and overview of approach
- Embedded supports in an instructional sequence
- Differentiation for reading
- Closing

Differentiation and Other Supports for Reading in Amplify Science



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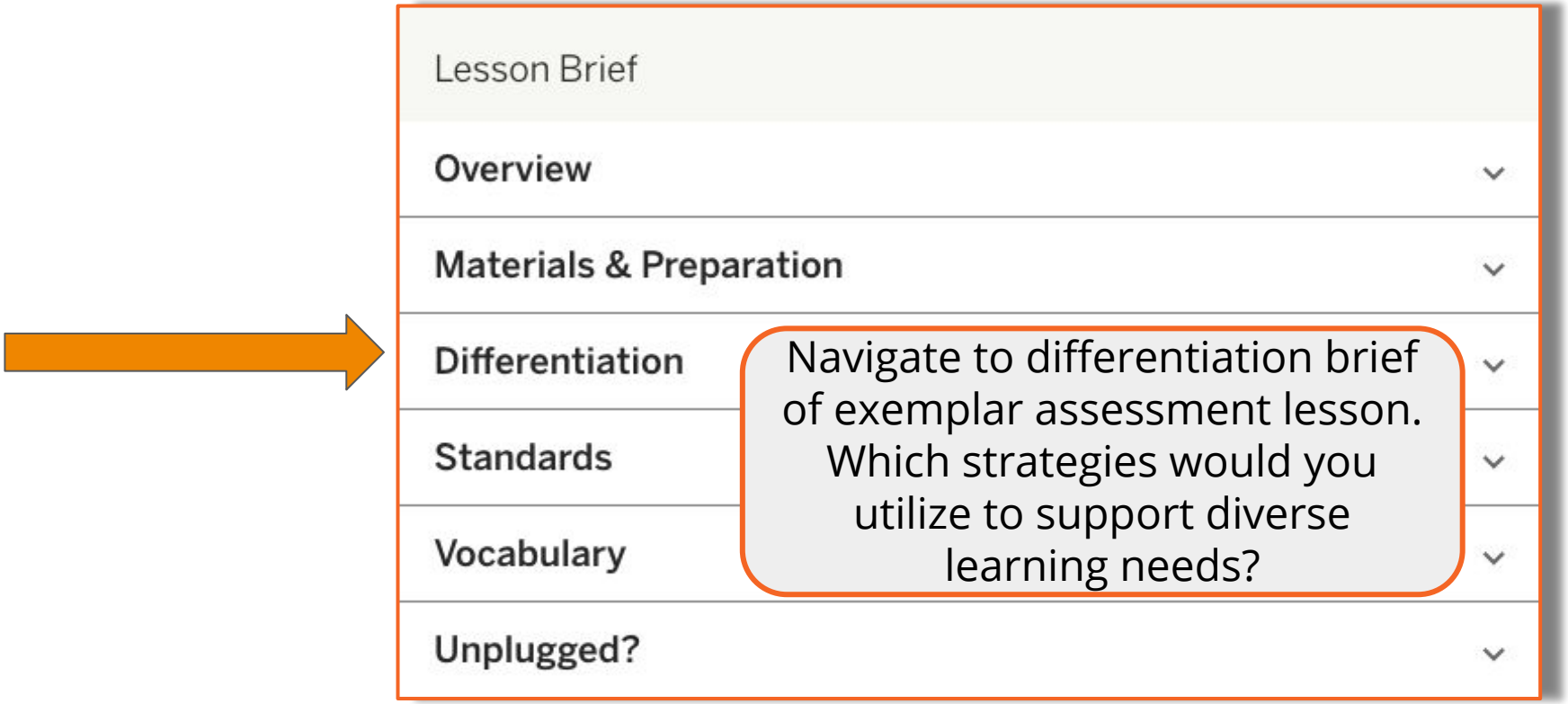
Differentiation Briefs

Categories of differentiation briefs

- Embedded supports for diverse learners
- Potential challenges in this lesson
- Specific differentiation strategies for:
  - English learners
  - students who need more support
  - students who need more challenge

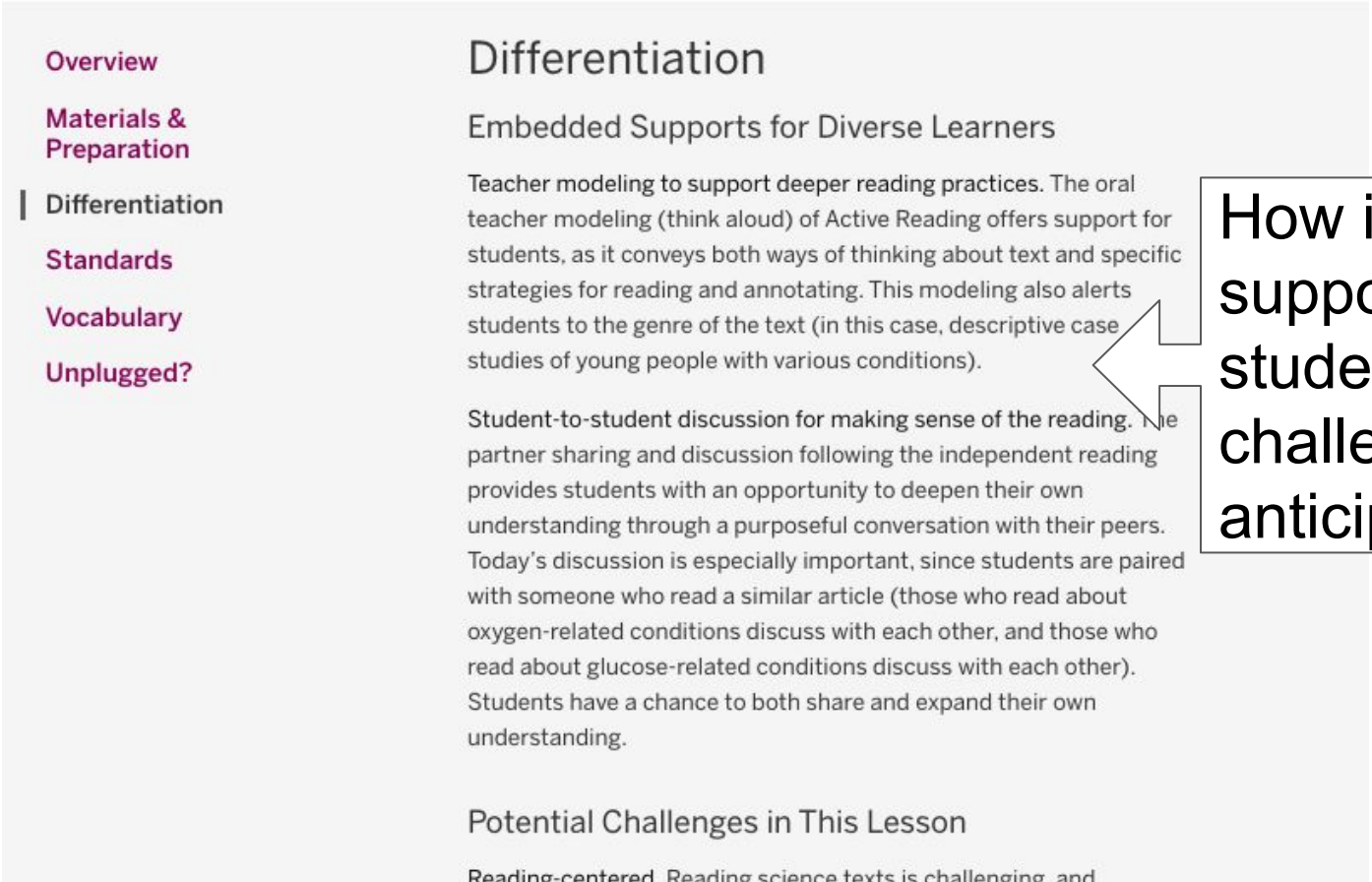
Differentiation in Amplify Science



Planning for Differentiation

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?		

Analyzing Differentiation Opportunities



Overview

Materials & Preparation

Differentiation

Standards

Vocabulary

Unplugged?

Differentiation

Embedded Supports for Diverse Learners

Teacher modeling to support deeper reading practices. The oral teacher modeling (think aloud) of Active Reading offers support for students, as it conveys both ways of thinking about text and specific strategies for reading and annotating. This modeling also alerts students to the genre of the text (in this case, descriptive case studies of young people with various conditions).

Student-to-student discussion for making sense of the reading. The partner sharing and discussion following the independent reading provides students with an opportunity to deepen their own understanding through a purposeful conversation with their peers. Today's discussion is especially important, since students are paired with someone who read a similar article (those who read about oxygen-related conditions discuss with each other, and those who read about glucose-related conditions discuss with each other). Students have a chance to both share and expand their own understanding.

Potential Challenges in This Lesson

Reading-centered. Reading science texts is challenging, and

How is this lesson supportive of all students? What challenges do you anticipate?

Analyzing Differentiation Opportunities

Specific Differentiation Strategies for English Learners

Extra discussion time. Providing extended time for discussion during and after reading these articles gives English learners and other students who might need more reading support a chance to practice using new science vocabulary words and to process what they read. Having students stop part way through their reading to discuss may help some students process what they are reading more thoroughly.

***Metabolism* glossary.** Throughout this unit, you will find resources for supporting English learners in science, including a glossary in the Amplify Library that includes Spanish definitions for primary Spanish speakers. If you have English learners in your class whose primary language is Spanish, make sure to point out the glossary to them in the Digital Resources.

Specific Differentiation Strategies for Students Who Need More Support

Reveal Tool. Articles in the Amplify Library are equipped with the Reveal Tool, which allows students to click on difficult conceptual

Would the suggested additional supports in this lesson work for my remote/hybrid classroom? How can I adapt them?

Planning for Differentiation

Specific Differentiation Strategies for English Learners

Extra discussion time. Providing extended time for discussion during and after reading these articles gives English learners and other students who might need more reading support a chance to practice using new science vocabulary words and to process what they read. Having students stop part way through their reading to discuss may help some students process what they are reading more thoroughly.

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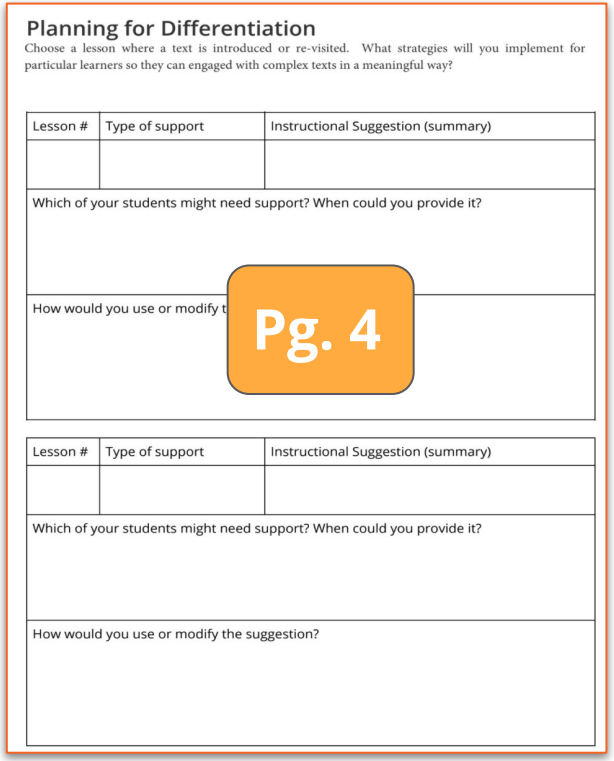
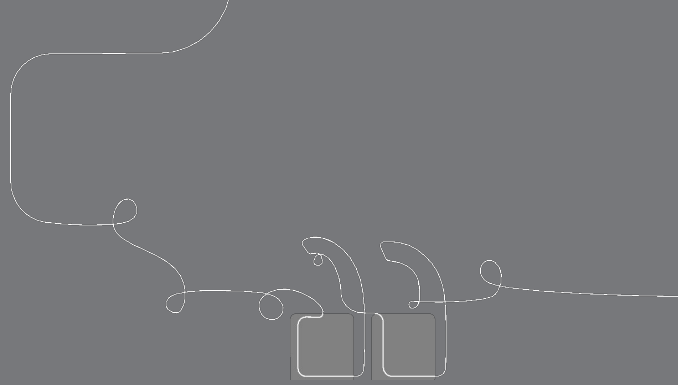
Planning for Differentiation

Lesson #	Type of support	Instructional suggestion (summary)
2.2	Support for ELs	Review key vocabulary from Metabolism Multilingual glossary
Which of your students might need support? When could you provide it?		
7 students-- have them join at a back table (5 min) as others are reading independently or with a partner		
How would you use or modify the suggestion?		
• Highlight key vocabulary from the multilingual glossary that is used in the article together • Model how to use the glossary as a reference by reading and thinking aloud with the first paragraph		

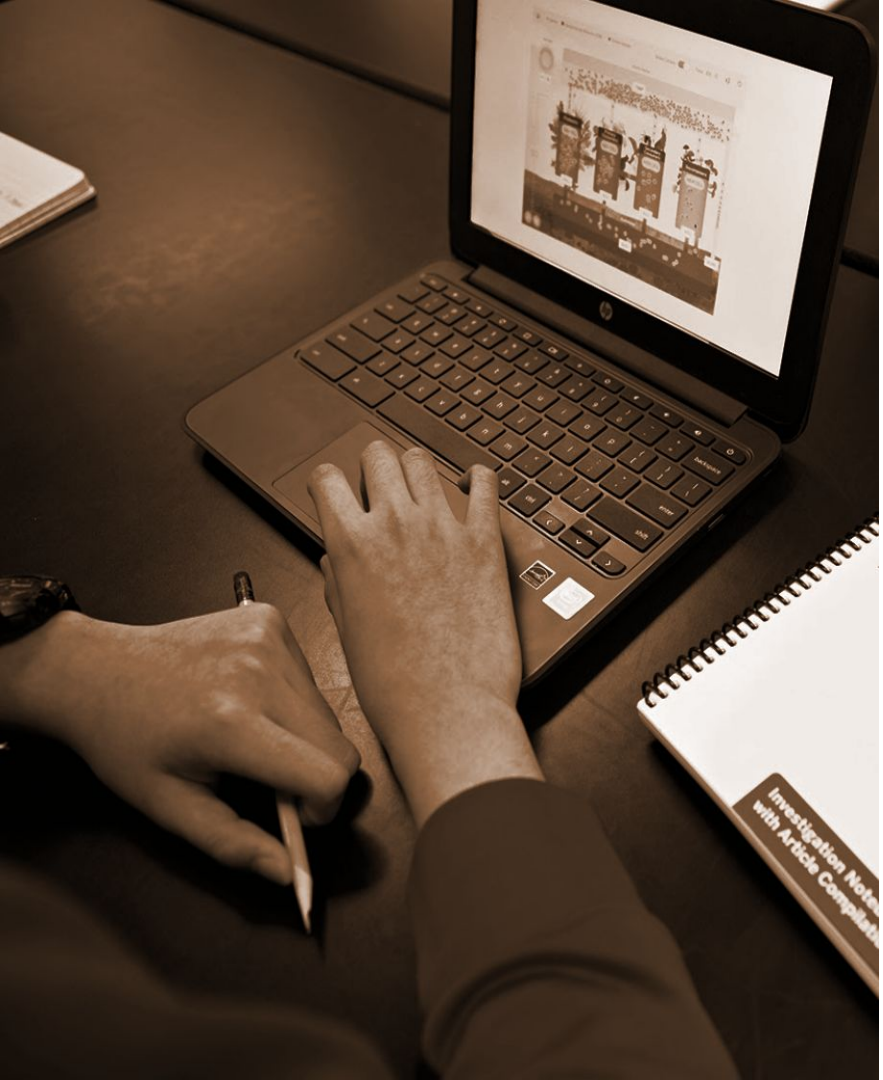
Planning for differentiation in your unit

- Navigate to **2 reading lessons** you will be teaching in the next few weeks
- Navigate to and read the **Differentiation section** of the Lesson Brief(s)
- Complete the **Planning for Differentiation** for the these lessons





Questions?



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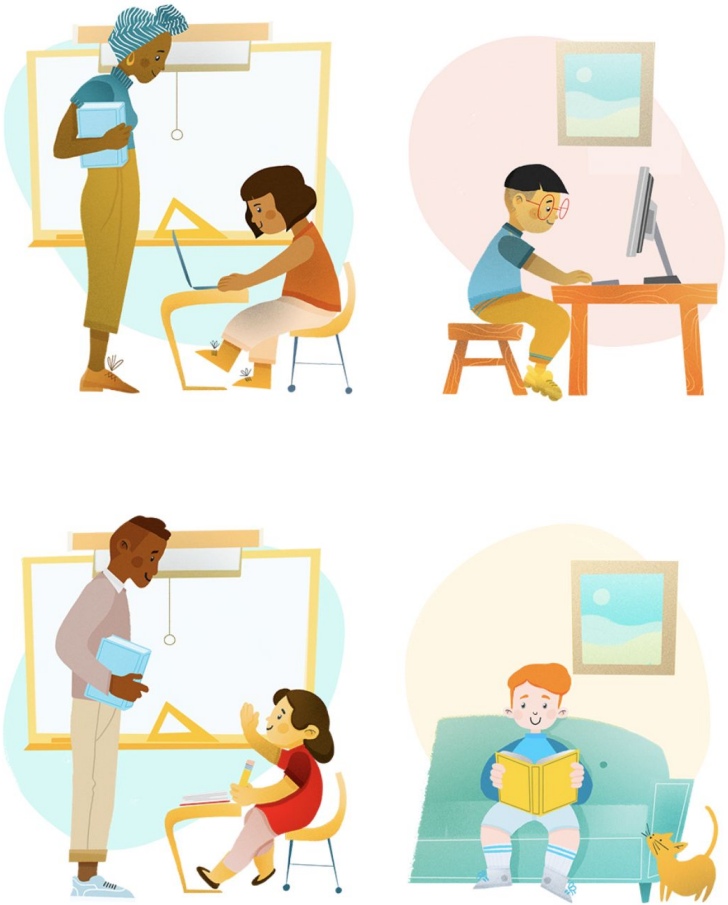
AmplifyScience@Home

A suite of resources designed to make extended remote and hybrid learning easier for teachers and students.



Temperature Check

Rate your comfort level accessing and navigating the Amplify Science @Home resources

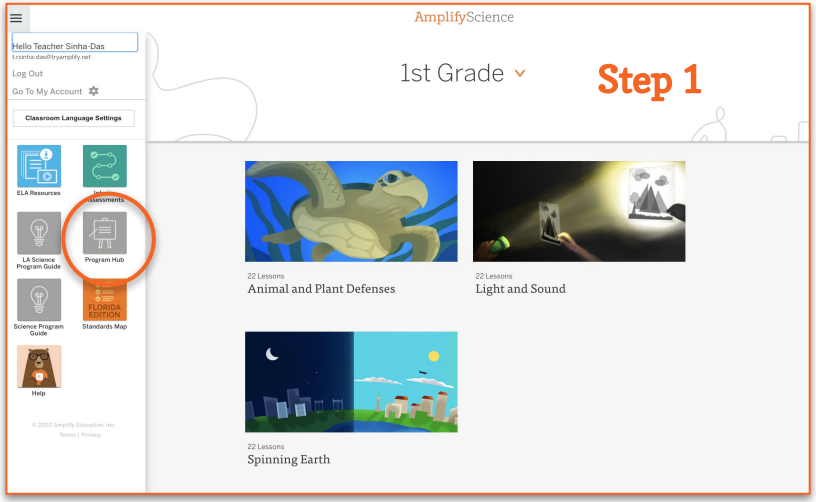
1 = Extremely Uncomfortable

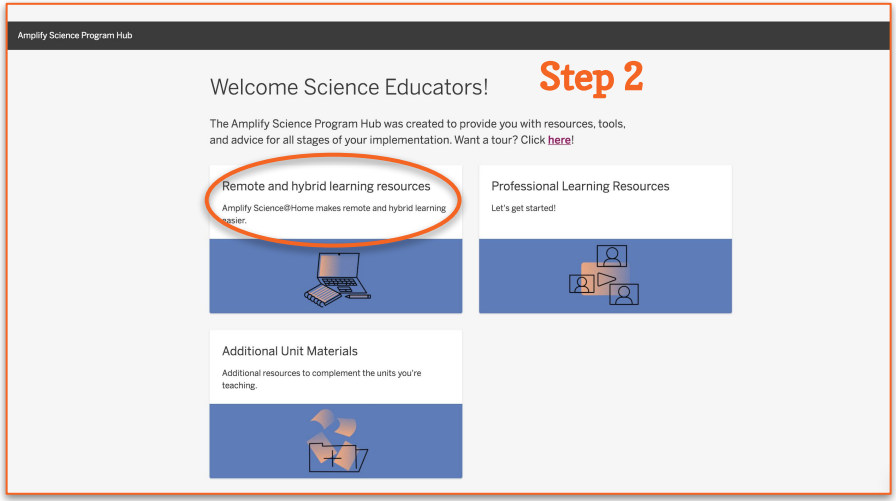
2 = Uncomfortable

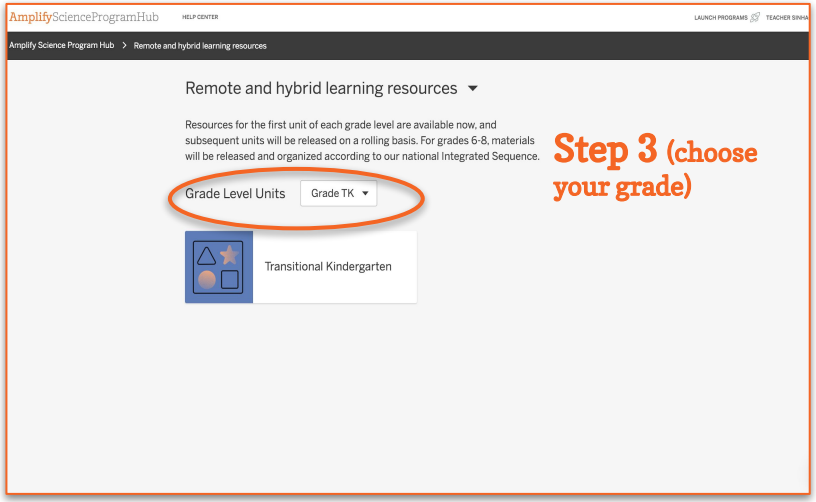
3 = Mild

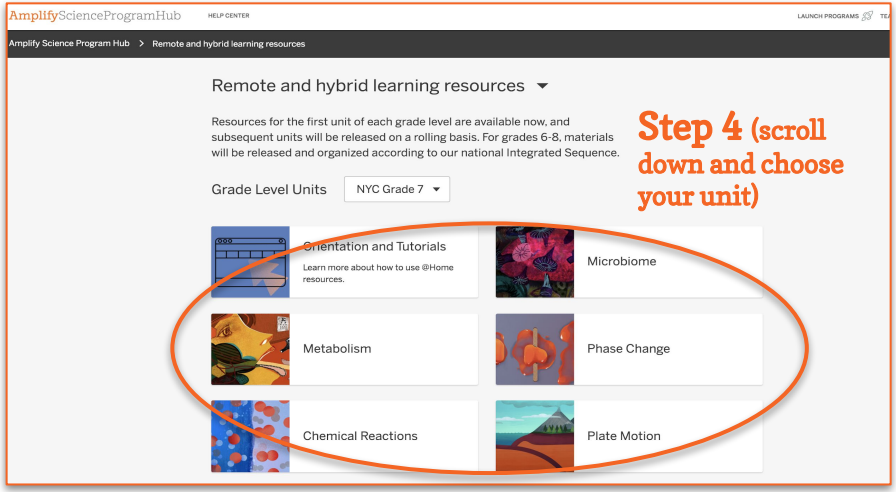
4 = Comfortable

5 = Extremely Comfortable


AmplifyScience
Hello Teacher Sinha-Das
Log Out
Go To My Account
Classroom Language Settings
ELA Resources
Program Hub
Science Program Guide
Standards Map
Help
1st Grade
Step 1
22 Lessons
Animal and Plant Defenses
22 Lessons
Light and Sound
22 Lessons
Spinning Earth


Amplify Science Program Hub
Welcome Science Educators!
Step 2
The Amplify Science Program Hub was created to provide you with resources, tools, and advice for all stages of your implementation. Want a tour? Click here!
Remote and hybrid learning resources
Amplify Science@Home makes remote and hybrid learning easier.
Professional Learning Resources
Let's get started!
Additional Unit Materials
Additional resources to complement the units you're teaching.


AmplifyScienceProgramHub
HELP CENTER
Amplify Science Program Hub > Remote and hybrid learning resources
Remote and hybrid learning resources
Resources for the first unit of each grade level are available now, and subsequent units will be released on a rolling basis. For grades 6-8, materials will be released and organized according to our national Integrated Sequence.
Step 3 (choose your grade)
Grade Level Units
Grade TK
Transitional Kindergarten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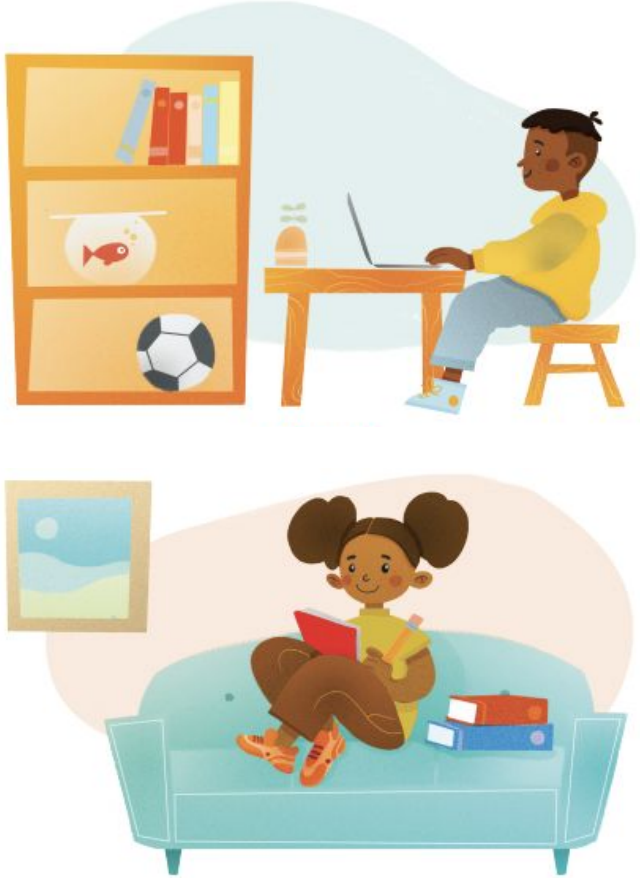
Step 4 (scroll down and choose your unit)
Grade Level Units
NYC Grade 7
Orientation and Tutorials
Learn more about how to use @Home resources.
Microbiome
Metabolism
Phase Change
Chemical Reactions
Plate Motion

AmplifyScience@Home

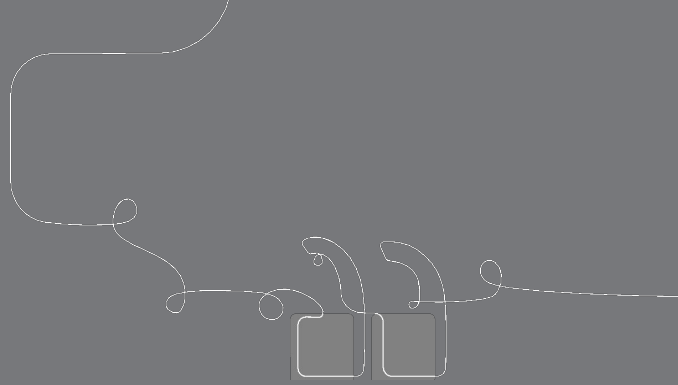
- Built for a variety of instructional formats
- Digital and print-based options
- No materials required
- Available in English and Spanish (student and family materials)
- Accessible on the Amplify Science Program Hub



Remote Active Reading best practices share-out

On Jamboard, please share:

- **Strategies** you've utilized to support students' **active reading** remotely



Questions?

3-2-1 Reflection

3	**Strategies to take away**

2	**Things I learned**

1	**Question I still have**

Revisiting our objectives

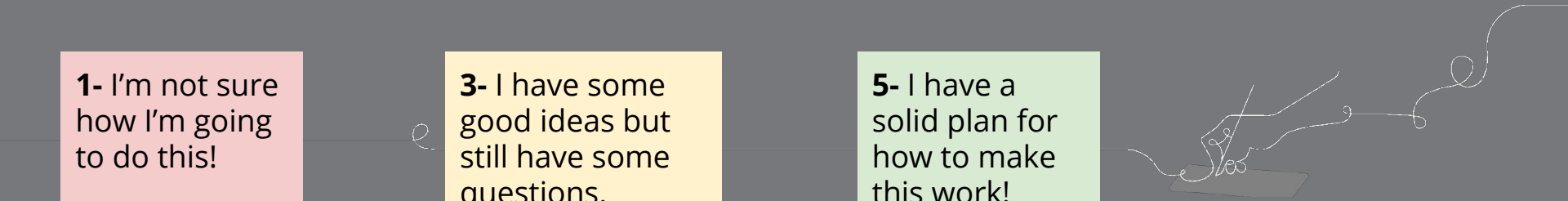
Do you feel ready to...

- Identify the different roles that text can play in figuring out science concepts.
- Describe how the Amplify Science approach to reading supports students in making sense of science ideas.
- Be ready to teach specific reading strategies for diverse learners.

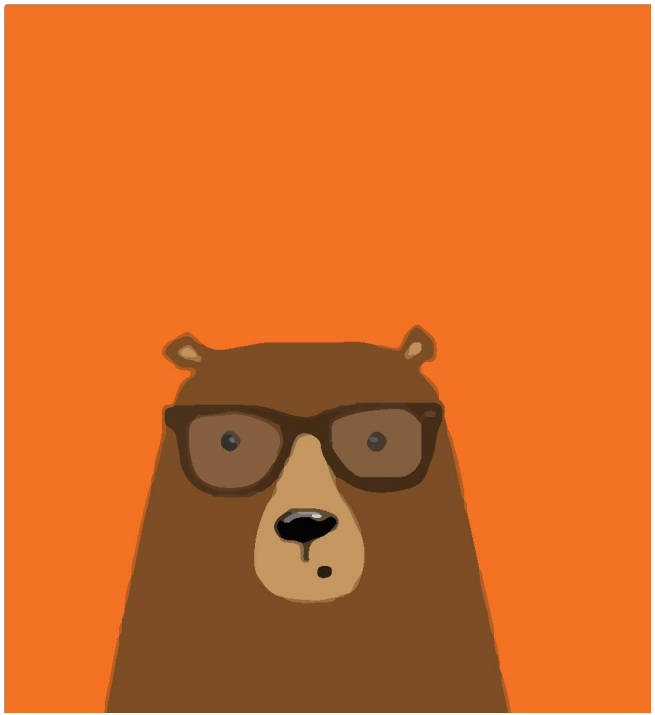
1- I'm not sure how I'm going to do this!

3- I have some good ideas but still have some questions.

5- I have a solid plan for how to make this work!



Additional Amplify resources



Program Guide

Glean additional insight into the program's structure, intent, philosophies, supports, and flexibility.

my.amplify.com/programguide

Amplify Help

Find lots of advice and answers from the Amplify team.

my.amplify.com/help

Additional Amplify Support

Customer Care

Seek information specific to enrollment and rosters, technical support, materials and kits, and teaching support, weekdays 7AM-7PM EST.

scihelp@amplify.com

800-823-1969

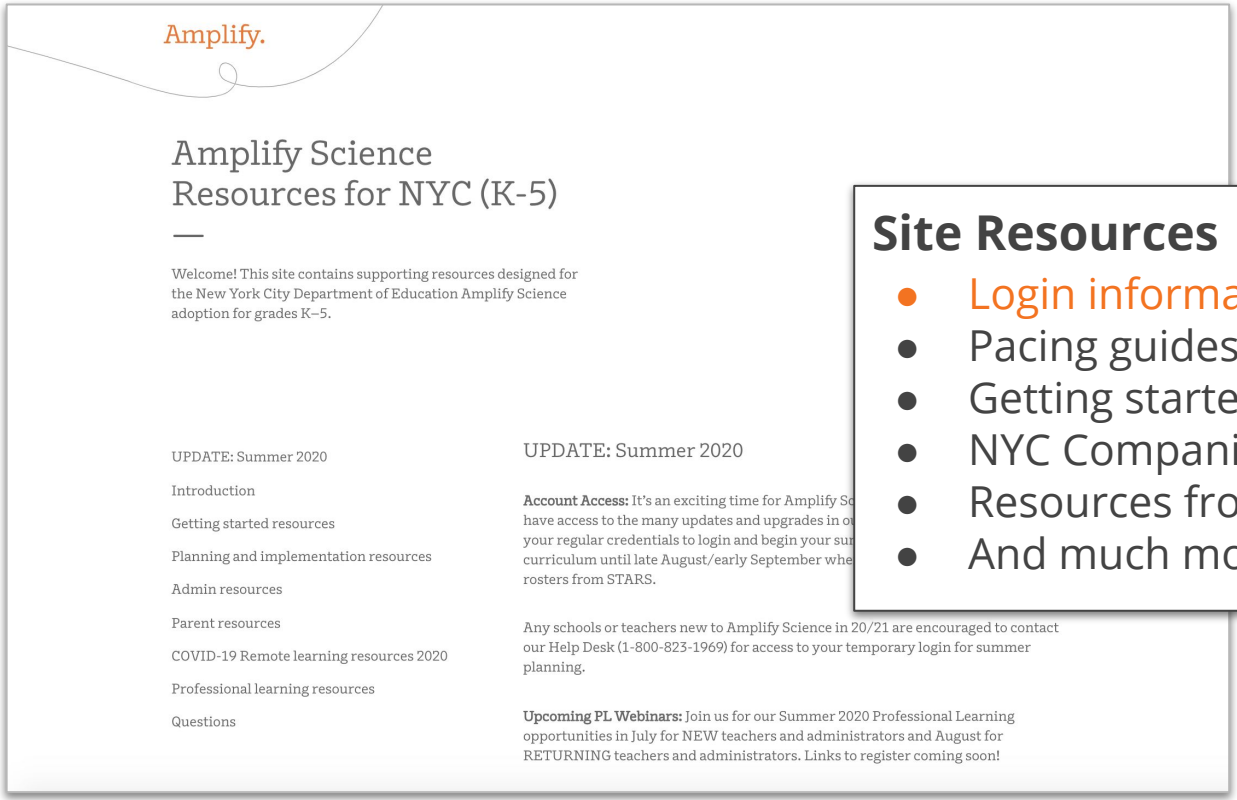
Amplify Chat

When contacting the customer care team:

- Identify yourself as an Amplify Science user.
- Note the unit you are teaching.
- Note the type of device you are using (Chromebook, iPad, Windows, laptop).
- Note the web browser you are using (Chrome or Safari).
- Include a screenshot of the problem, if possible.
- Copy your district or site IT contact on emails.

New York City Resources Site

https://amplify.com/amplify-science-nyc-doe-resources/



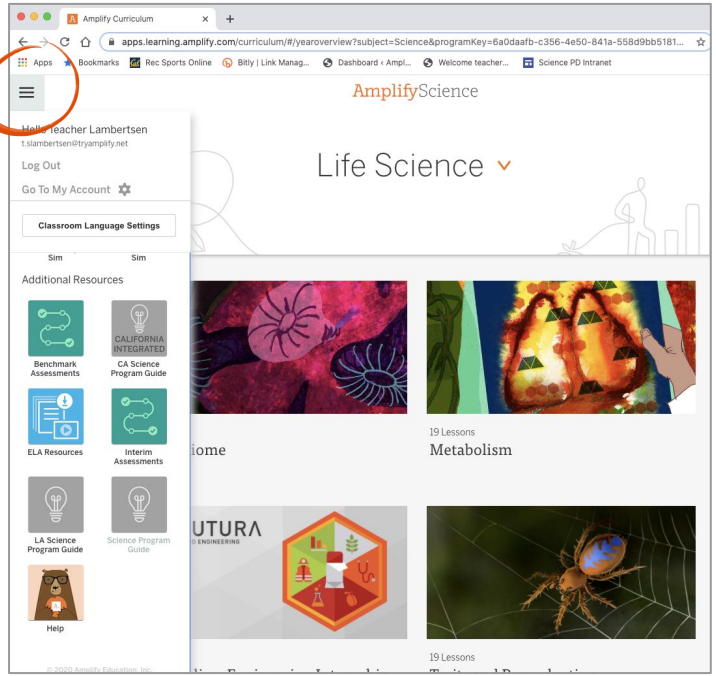
Site Resources

- Login information
- Pacing guides
- Getting started guide
- NYC Companion Lessons
- Resources from PD sessions
- And much more!

Amplify Science Program Hub

A hub for Amplify Science resources

- **Videos and resources to continue getting ready to teach**
- Amplify@Home resources
- Keep checking back for updates



Please provide us feedback!

URL: https://www.surveymonkey.com/r/BY56SBR

Presenter name: XXX