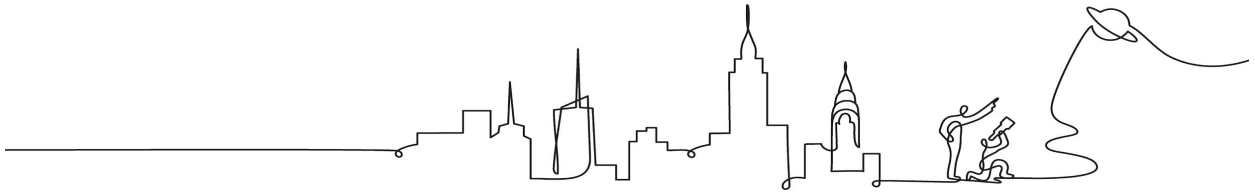
Welcome to Amplify Science!

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 name, grade level, & school you teach in.

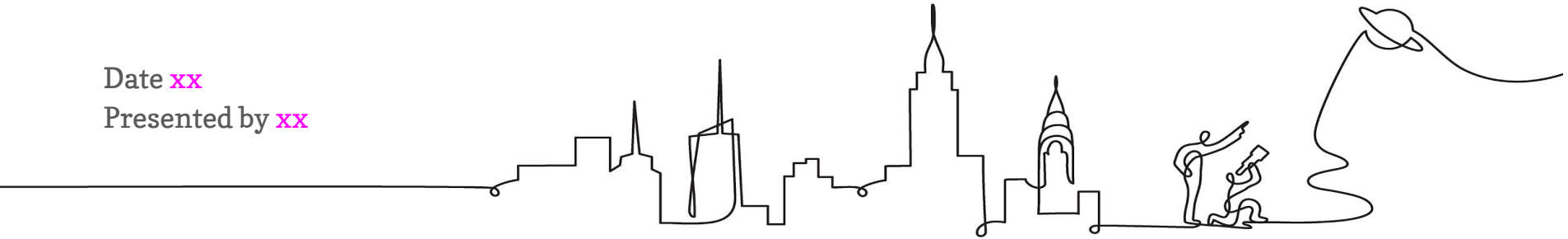


Amplify Science
New York City

Unit 3: Supporting Diverse Learner Needs

Grade 3 returning teachers

Date xx
Presented by xx



Remote Professional Learning Norms

Take some time to orient yourself to the platform

- *"Where's the chat box? What are these squares at the top of my screen?, where's the mute button?"*

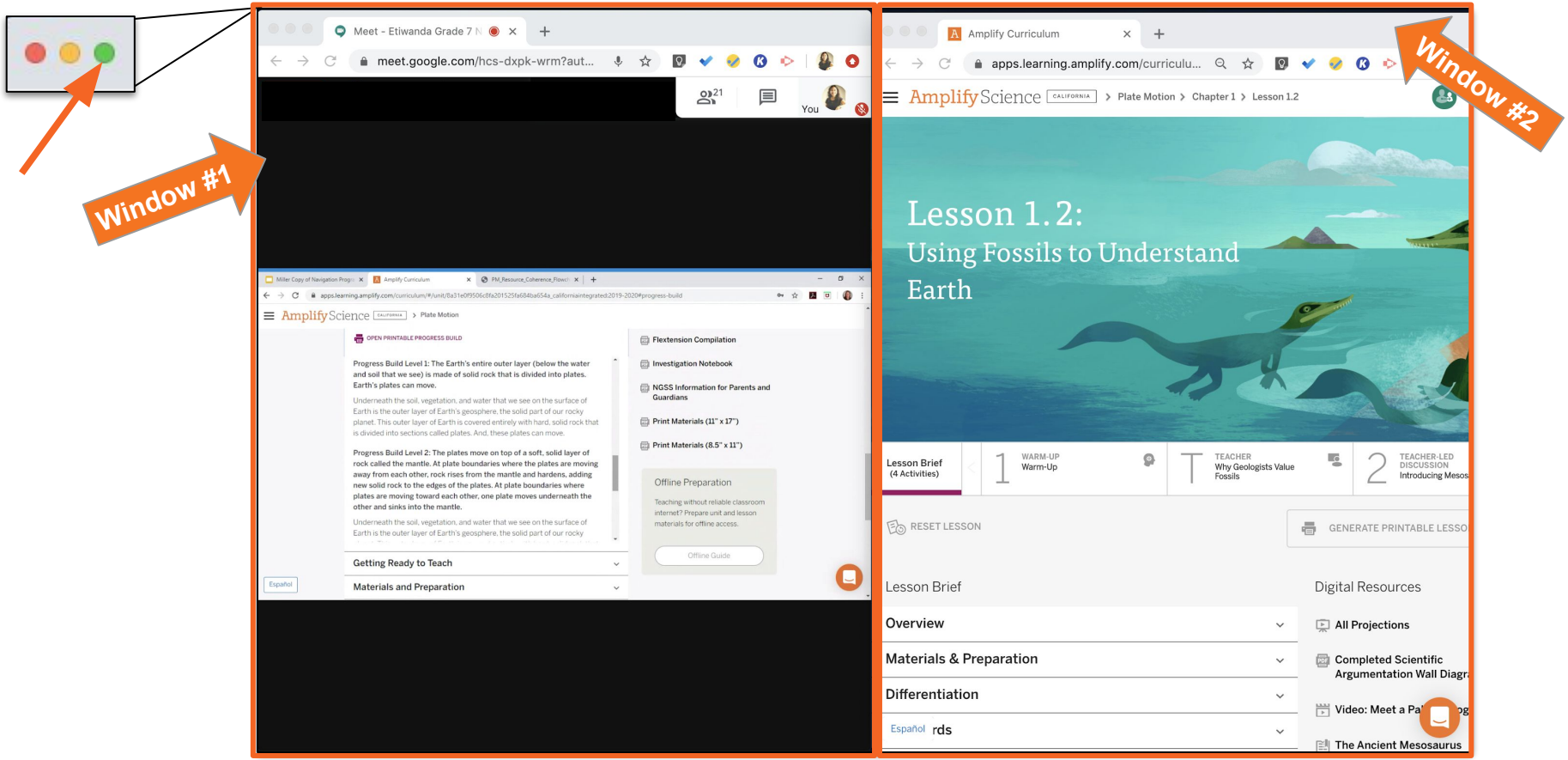
Mute your microphone to reduce background noise unless sharing with the group

The chat box is available for posting questions or responses to during the training

Make sure you have a note-catcher present

Engage at your comfort level - chat, ask questions, discuss, share!

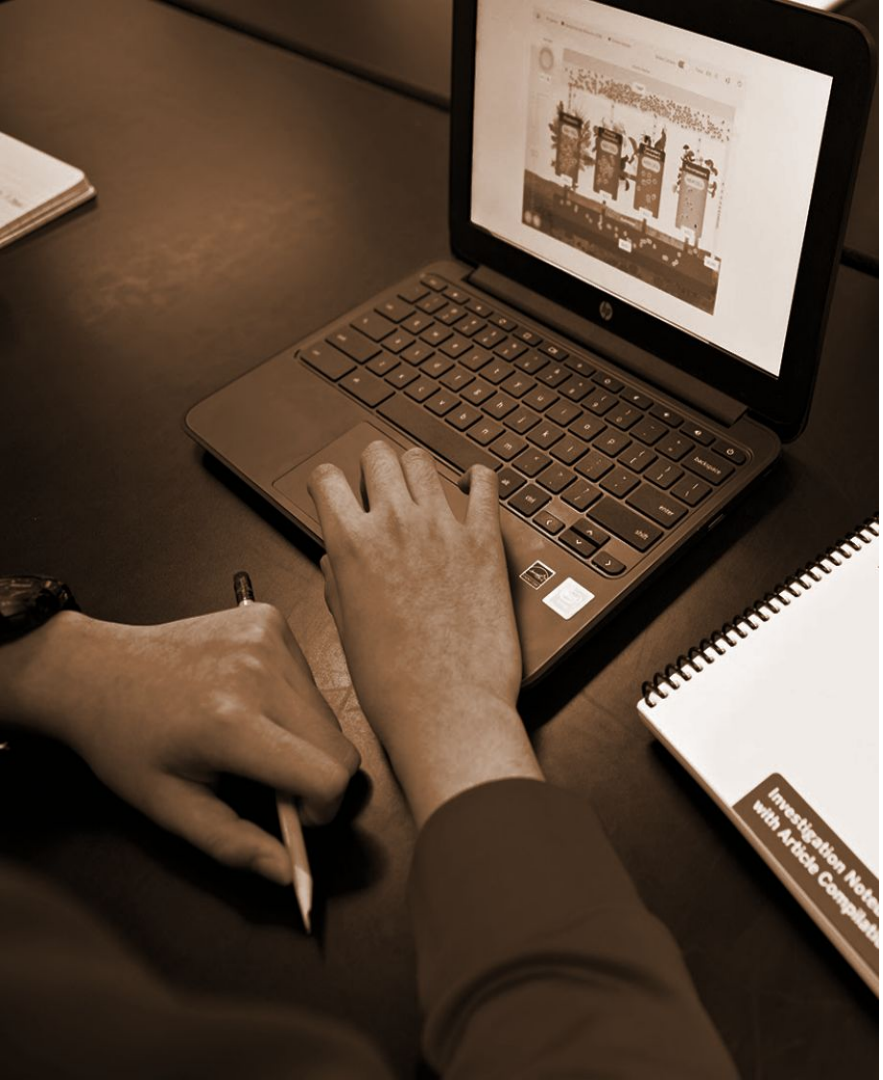
Use two windows for today's webinar



Overarching goals

By the end of this 1-hour workshop, you will be able to:

- Identify the embedded supports for diverse learner needs within your third unit.
- Understand the research-based principles that guided the creation of these supports & strategies in Amplify Science.



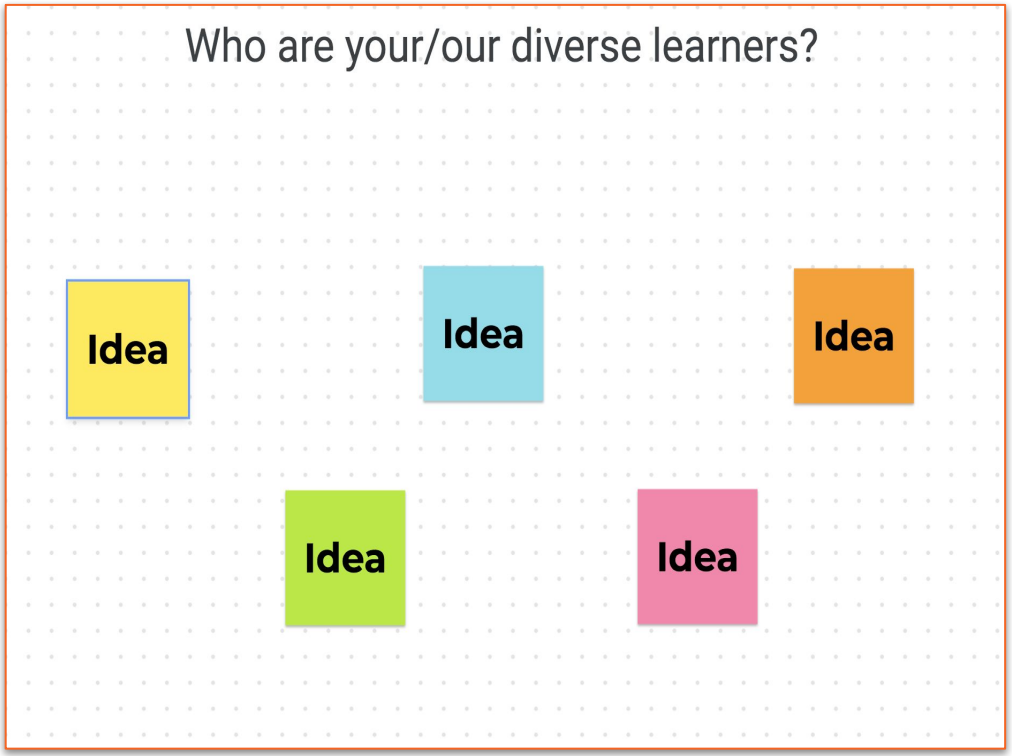
Plan for the day

- **Framing the day**
  - Welcome and introductions
  - Anticipatory activity
- Embedded supports for diverse learners
  - Research-based principles
- Analyzing an instructional sequence
  - Diverse learner profiles
  - Disciplinary literacy in science
- Multimodal instruction @home
- Closing
  - Reflection & additional resources
  - Survey

Anticipatory activity

On the Jamboard "post"….

- Your thoughts on this prompt: "Who are your/our **diverse learners**?

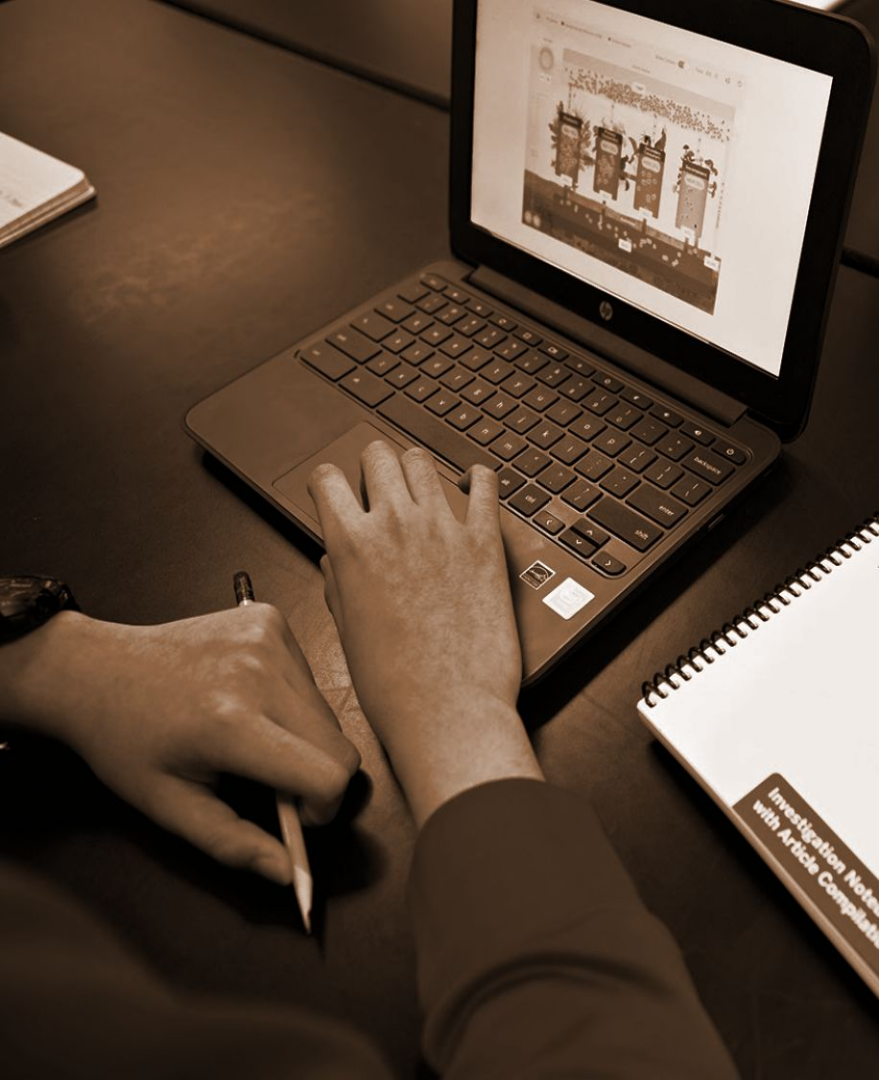


Who are our Diverse Learners?

"Diverse learning is not based on race or dependent on a deficit model. Students who are considered gifted are also diverse learners. All students are diverse and unique, in their own right. Let's agree that diverse learning recognizes that all students have unique learning needs and we educators must be prepared to provide multiple entry points for all learners to access the rigor of the goals and standards."

Anonymous Educator

Questions?



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The Amplify Science curriculum was developed with supporting diverse learning needs in mind.

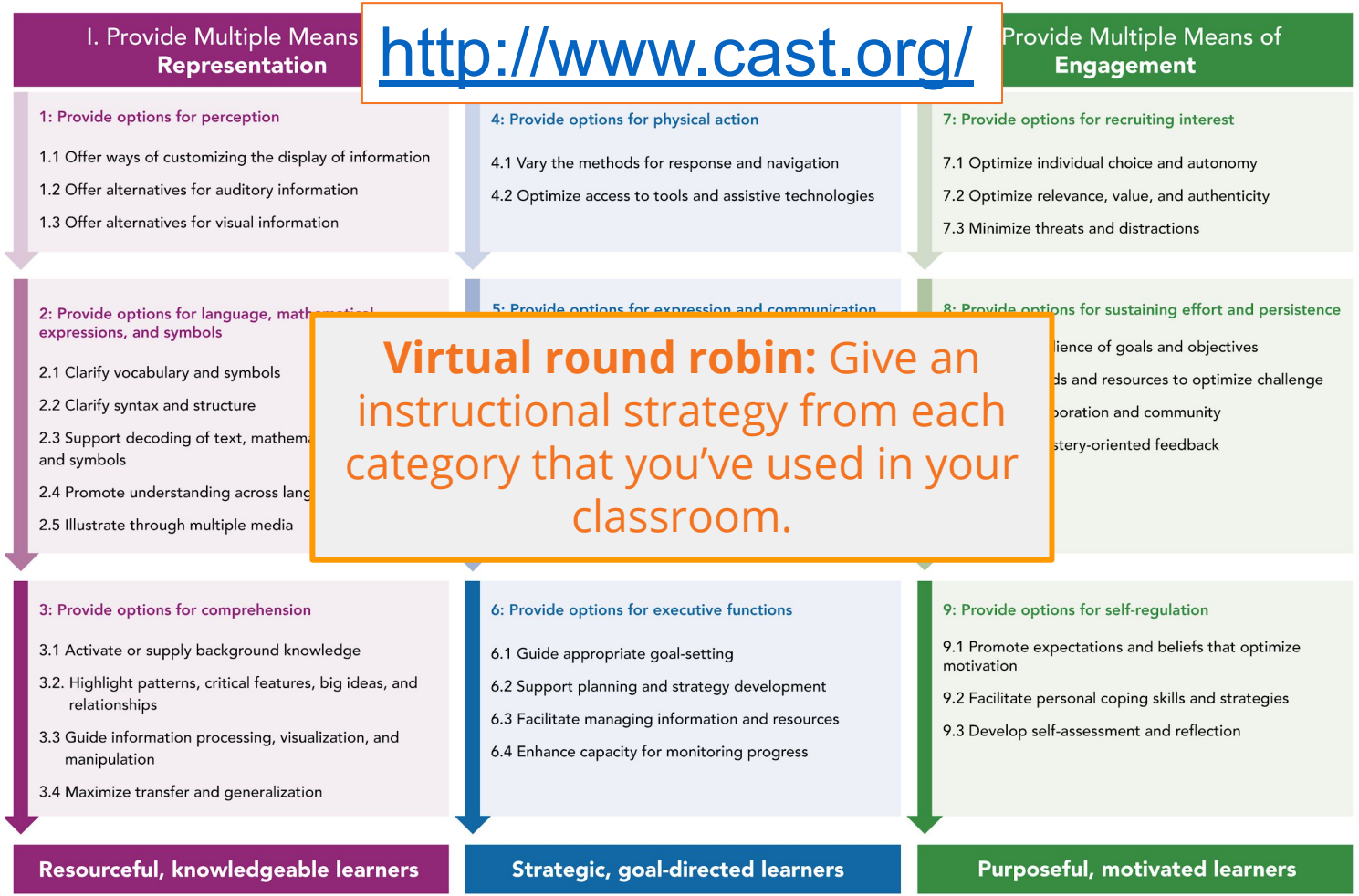
Two overarching conceptual frameworks informed Amplify Science's approach to ensuring access and equity for all students:

Universal Design for Learning & Culturally Linguistically Responsive Teaching.

Universal Design for Learning

Universal Design for Learning (UDL) is a **research-based framework** for improving student learning experiences and outcomes by **focusing on careful instructional planning to meet the varied needs of students.** UDL is **NOT a special-education initiative**. Through the UDL framework, the **needs of ALL learners are considered** and planned for at the point of first teaching, thereby **reducing the need to reteach concepts.**

Universal Design for Learning Guidelines



Culturally and linguistically responsive teaching

Culturally and linguistically responsive teaching (CLRT) principles **emphasize validating and valuing students' cultural and linguistic heritage** and **creating positive and nurturing learning environments** so that learning is more effective.

Source: (l): Aaron Yaazie; (um): Kyle Spradley/ University of Missouri; (lm) Dr. Grace O'Connell; (ur) Jane Rigby; (lr) Tina Shelton/ John A. Burns/ University of Hawaii at Manoa

Access and Equity

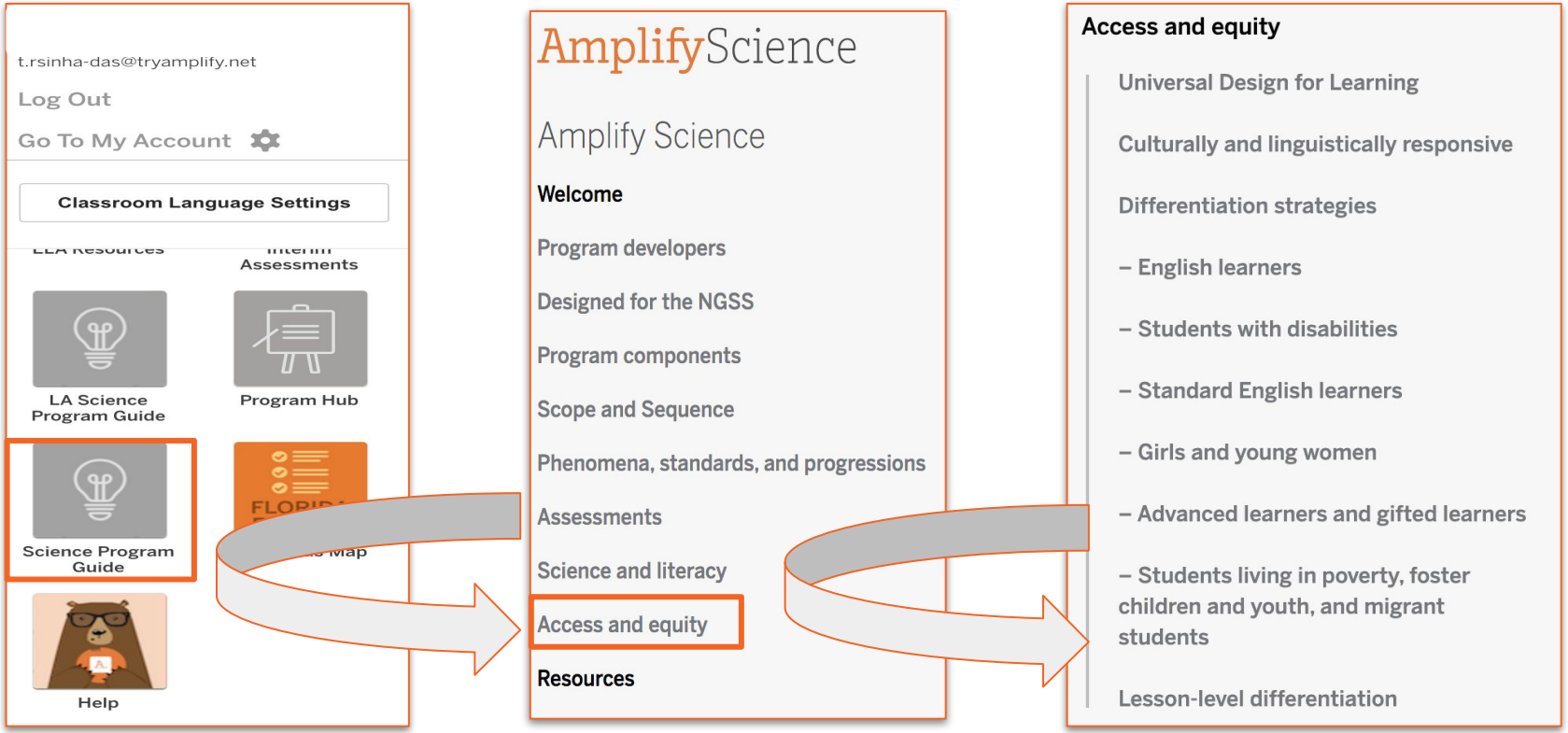
Culturally and linguistically responsive teaching

Think, type, chat: What have you leveraged from the Amplify curriculum to support culturally and linguistically responsive teaching?

CULTURALLY AND LINGUISTICALLY RESPONSIVE TEACHING PRINCIPLES

- Promote a positive disposition toward diversity: +
- Leverage students' cultural and experiential backgrounds: +
- Value language diversity and multilingualism: +
- Cultivate students' development of the language of science: +

Differentiation strategies to support ALL students

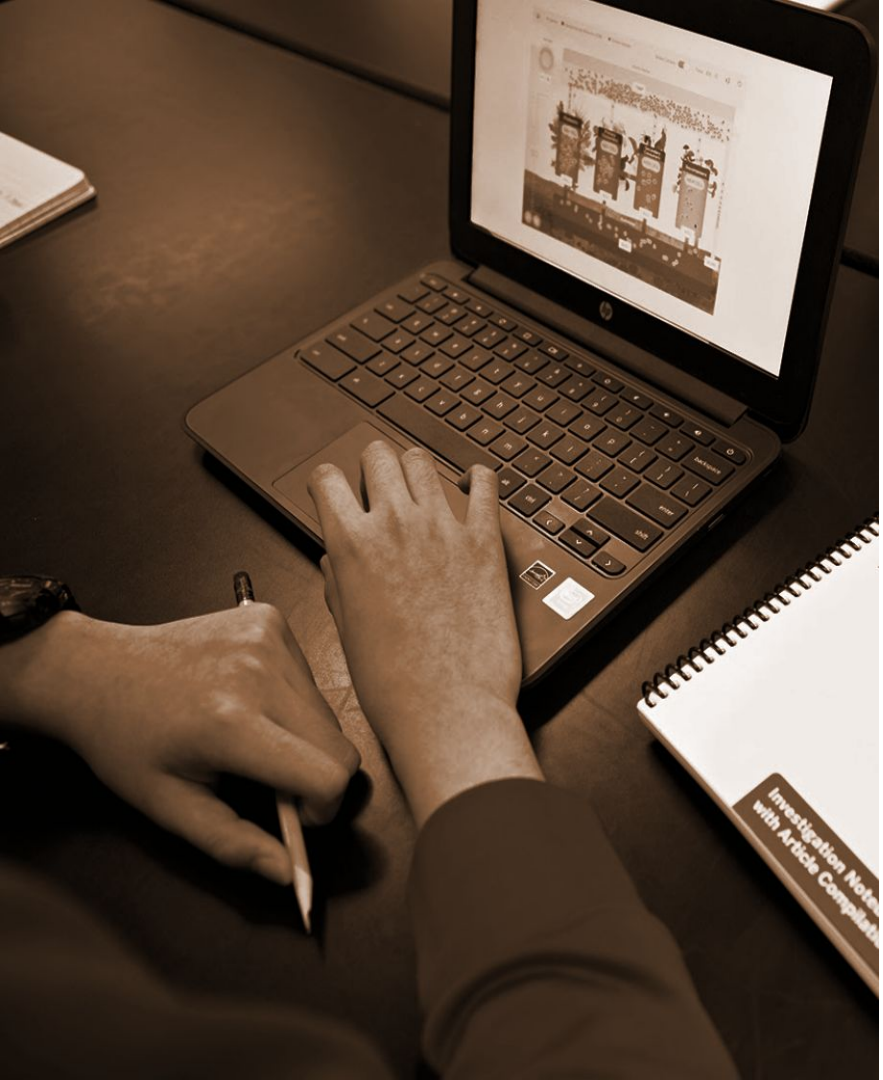


Diverse learner needs

Student population	Strategies for support
English learners	
Students with disabilities	
Standard English learners	
Girls and young women	
Advanced learners and gifted learners	
Students living in poverty, foster children and youth, and migrant students	

- In pairs, choose a **student population.**
- Jot down strategies you've read about from the **Program Guide** & those from your **own practice**.

Questions?



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Sample student profiles

Learner A: Enjoys science and math. Loves to tell stories about her many travels and enjoys figuring out phenomena presented. While she finds verbal explanations to be sufficient, she does not find it necessary to elaborate on her ideas through written explanation or written argument. She often shuts down when pushed to provide supporting details in writing.

Learner B: Enjoys reading and writing. When provided a written assignment, he is anxious to provide lengthy written and verbal explanations. Although, this learner enjoys reading, writing and speaking, he is challenged by sentence structure, spelling and staying on topic.

Learner C: This new student enjoys expressing himself through art and drawings. He is not a strong reader, yet, as English is his second language. This student has strong comprehension skills and has adapted to using the classroom artifacts to help him construct written explanations.

Learner D: Enjoys solving critical thinking problems and has rich science vocabulary. She works best when provided independent tasks and does not work well in collaborative group settings. She relies on step by step teacher validation and is not likely to complete a task without making sure her answer is affirmed by an adult in the room.

22 Lessons

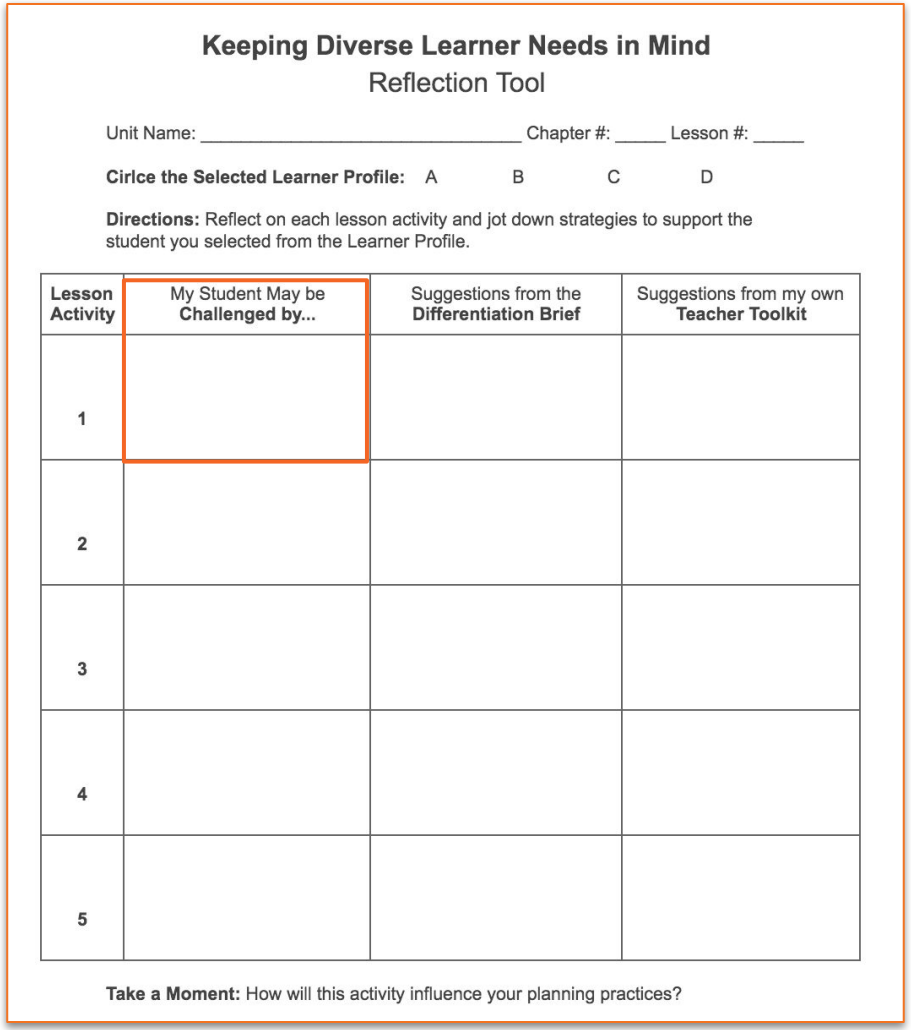
Environments and Survival

How can learning about how grove snails survive help engineers design effective solutions to problems?

In their role as biomimicry engineers, students figure out how the traits of grove snails affect their survival in different environments. They apply that understanding as they explore other organisms, their traits, and the likelihood of survival in different environments. Students then design effective solutions to the problem of invasive plant removal using the structural traits of giraffes as inspiration.

As you experience model activity:

- Choose a **learner profile**.
- Reflect on what this student may be **challenged by**.



Keeping Diverse Learner Needs in Mind

Reflection Tool

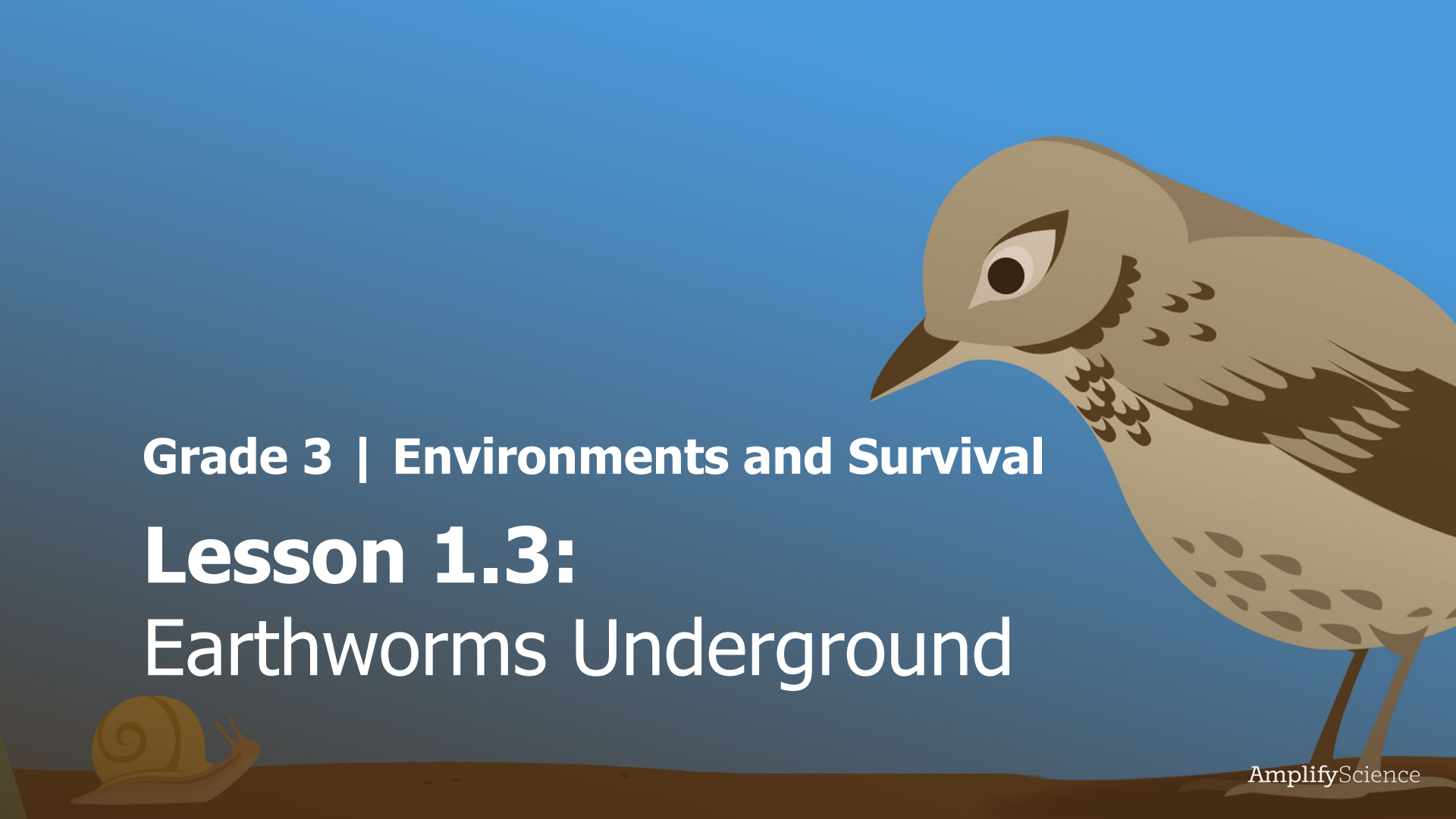
Unit Name: _____ Chapter #: _____ Lesson #: _____

Cirlce the Selected Learner Profile: A B C D

Directions: Reflect on each lesson activity and jot down strategies to support the student you selected from the Learner Profile.

Lesson Activity	My Student May be **Challenged by...**	Suggestions from the **Differentiation Brief**	Suggestions from my own **Teacher Toolkit**
1			
2			
3			
4			
5			

Take a Moment: How will this activity influence your planning practices?



Grade 3 | Environments and Survival

Lesson 1.3:
Earthworms Underground

AmplifyScience

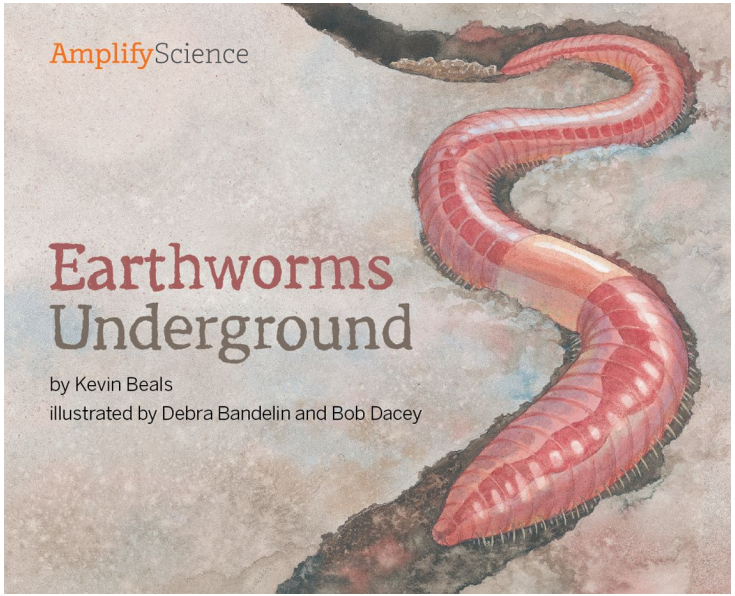
10 MIN

Activity 1

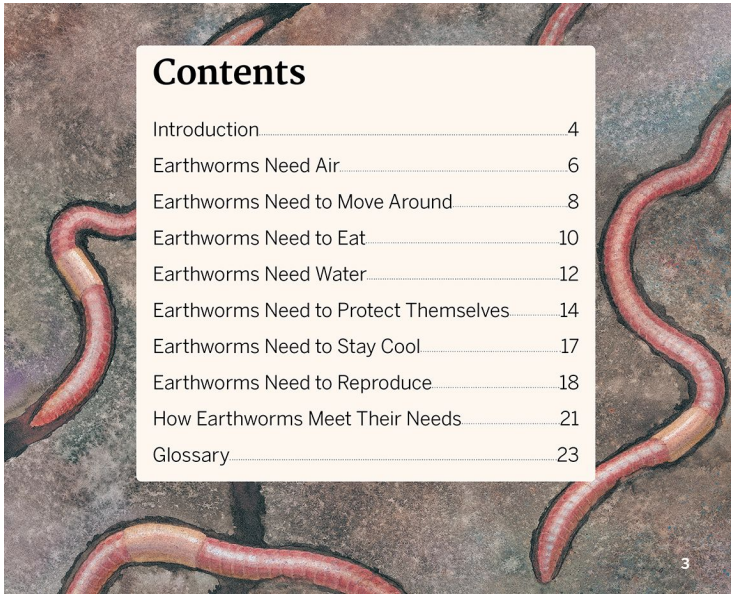
Introducing Earthworms Underground

Remember that we are investigating this question:

What makes organisms in a population more likely to survive or less likely to survive?

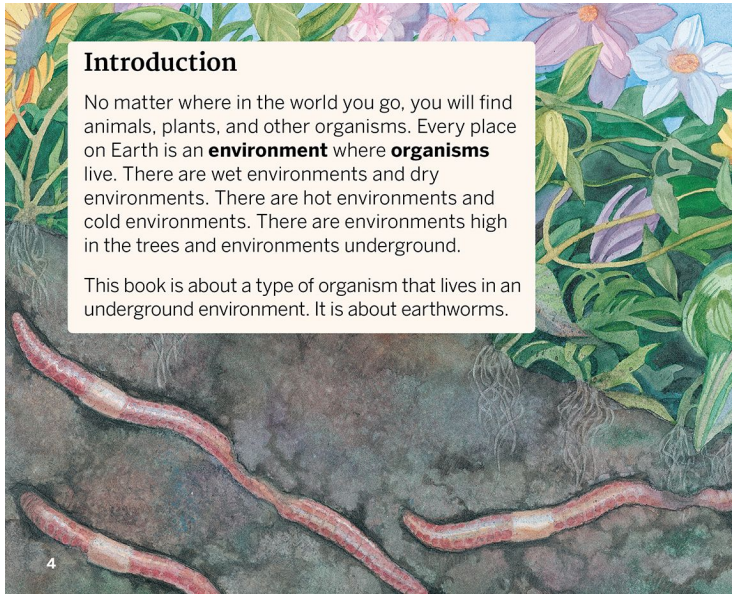


We'll keep thinking about what makes organisms **more likely** or **less likely to survive.** We'll read about how earthworms survive underground.



Turn to page 3, Contents.

In the Contents, we see that **earthworms** have a lot of needs.



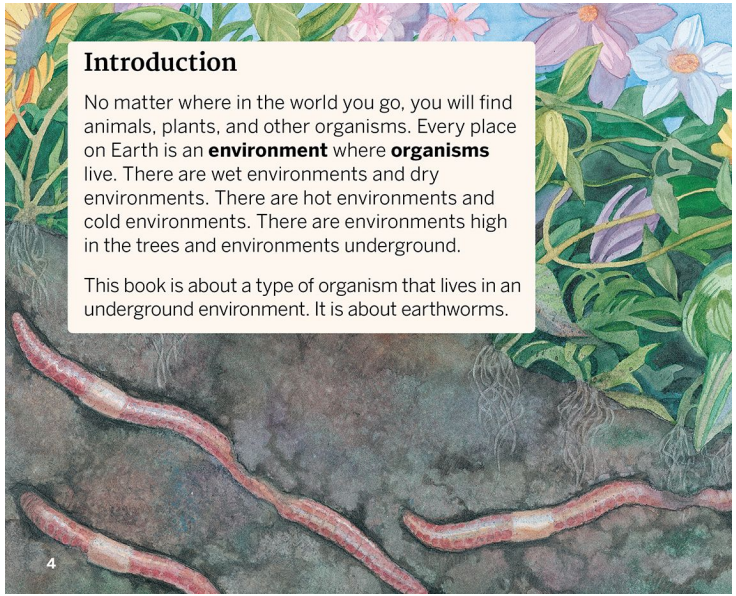
Turn to page 4.

Let's look at this page together. **Follow along** as I read out loud. Then, we'll talk about the word **environment.**

Vocabulary

environment

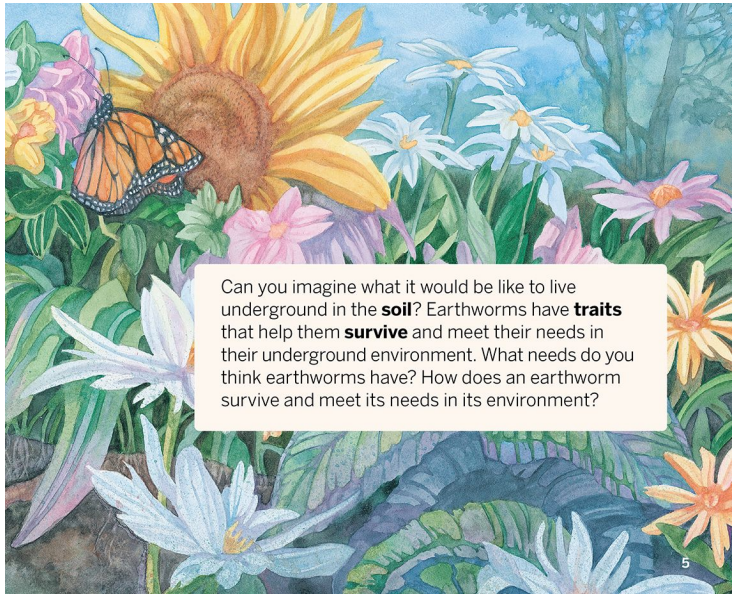
all the living and nonliving things in an area



What are some of the **living and nonliving things** you see in the earthworms' underground environment?

In order to help you understand what you read, you will make some **inferences** as you read.

In reading, an inference is **something you figure out** based on what you read and what you already know.



Turn to page 5.

Follow along as I read out loud.

We read that **earthworms** can survive and meet their needs **underground.** We already know that one need organisms have is getting food.

So we can figure out, or **make an inference,** that earthworms get their food underground.

Name: _____ Date: _____

Making Inferences When Reading: *Earthworms Underground*

Directions:
1. Make inferences as you read *Earthworms Underground* to help you understand the book.
2. In the table below, record the page number and what you read.
3. Then, record the inference you made.

Page number	**I read that . . .**	**My inference is . . .**
Page: 7	If an earthworm dries out, it is not likely to survive.	
Page:		
Page:		

Turn to page 8 in your notebooks.

You will record **inferences** as you read.

The first row has already been started.

Name: _____ Date: _____

Making Inferences When Reading: *Earthworms Underground*

Directions:

1. Make inferences as you read *Earthworms Underground* to help you understand the book.
2. In the table below, record the page number and what you read.
3. Then, record the inference you made.

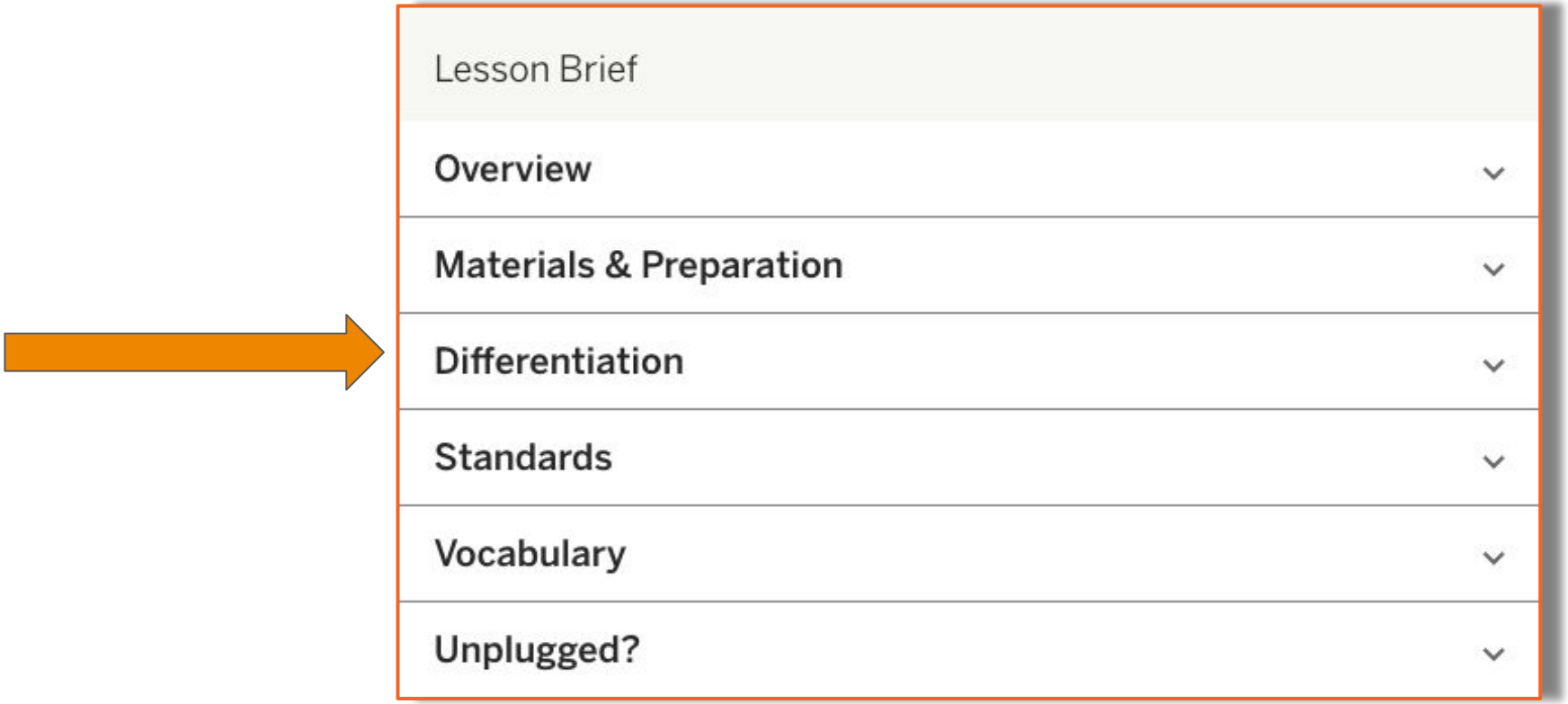
Page number	I read that . . .	My inference is . . .
Page: 7	If an earthworm dries out, it is not likely to survive.	If an earthworm goes above ground, it will dry out and not be able to survive.
Page:		
Page:		

Based on what we read on page 7, we can make an inference.

Record this inference in your notebooks.

End of model activity

Differentiation in Amplify Science



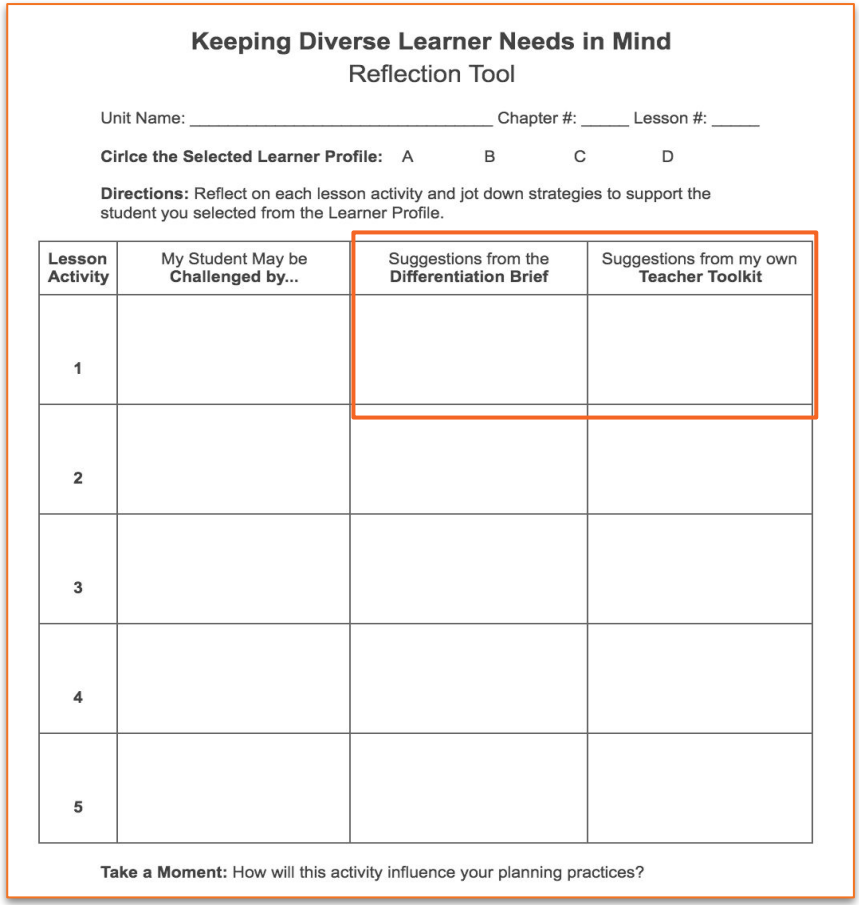
Differentiation briefs

Categories of differentiation briefs

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

Reflection part 1:

- Navigate to the **model** lesson **activity**.
- Review the **differentiation brief** and jot down notes on the **note-catcher** to describe the supports you think would would best support your **diverse learner**.



Keeping Diverse Learner Needs in Mind
Reflection Tool

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1			
2			
3			
4			
5			

Take a Moment: How will this activity influence your planning practices?

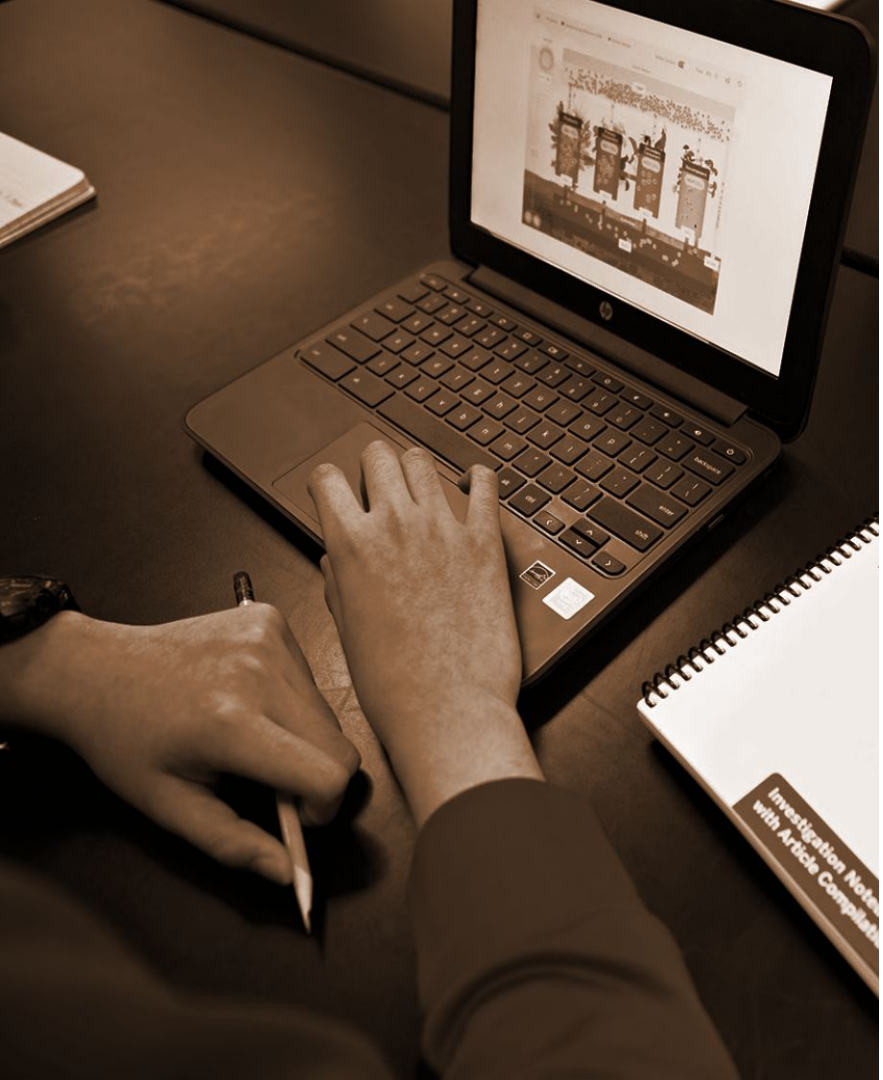
A disciplinary literacy approach to learning science

In the Amplify Science program, students l**earn to read, write, and speak as scientists do** as they acquire facility with the **academic language** and vocabulary of science. Through the **seamless integration of science and literacy instruction**, students also learn that reading, writing, and talking are **essential practices of science**, and that all scientists use these practices to gather information, communicate claims, leverage evidence, draw conclusions from data, and share their ideas through oral and written **explanations and arguments**.

Reflection part 2:

How did language & literacy help students in developing scientific understanding in the model activity?

Questions?



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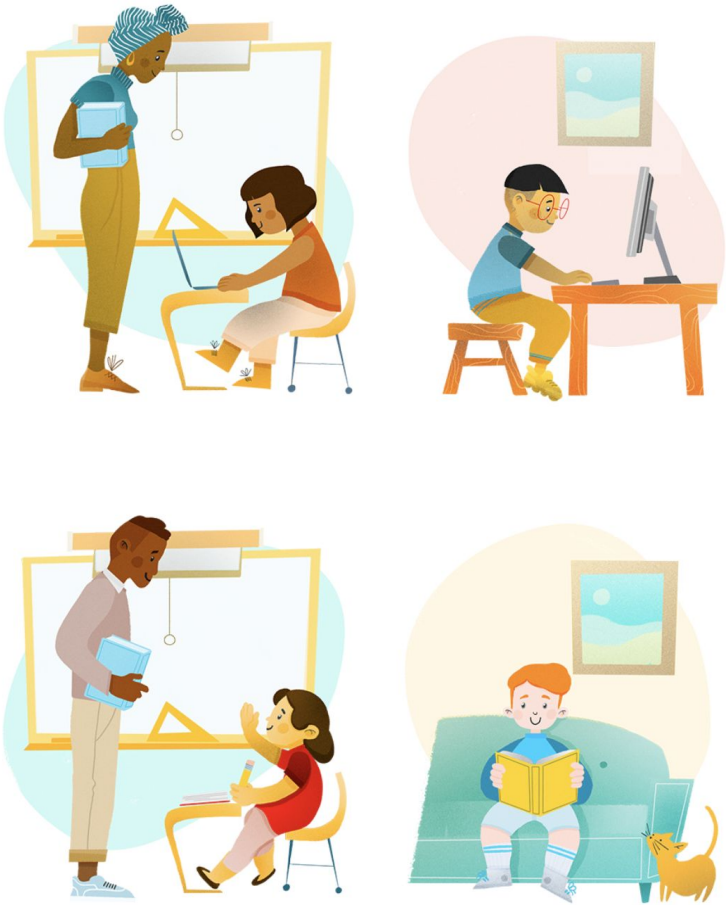
AmplifyScience@Home

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

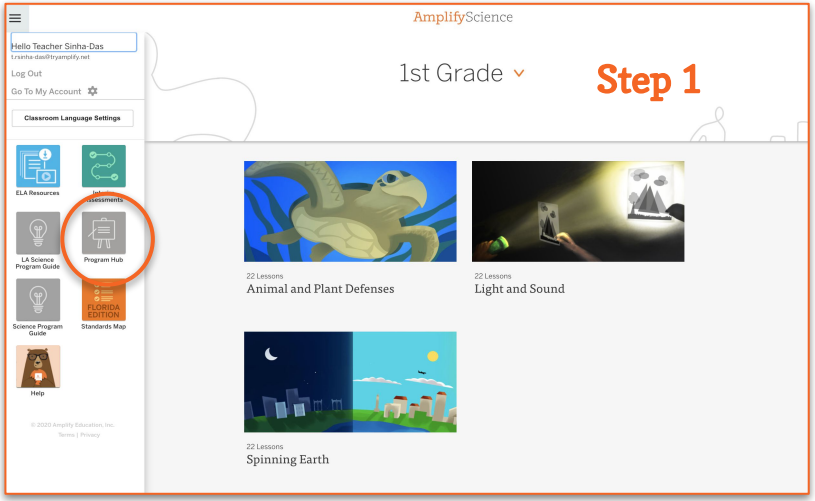
1 = Extremely Uncomfortable

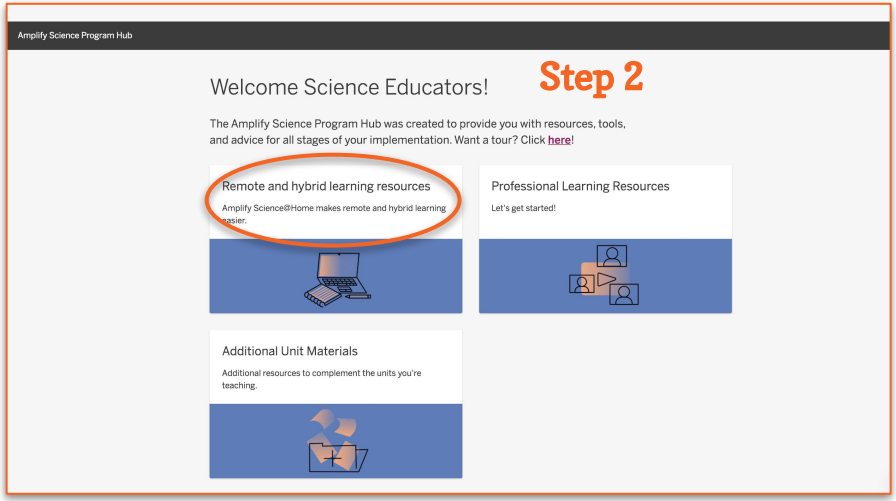
2 = Uncomfortable

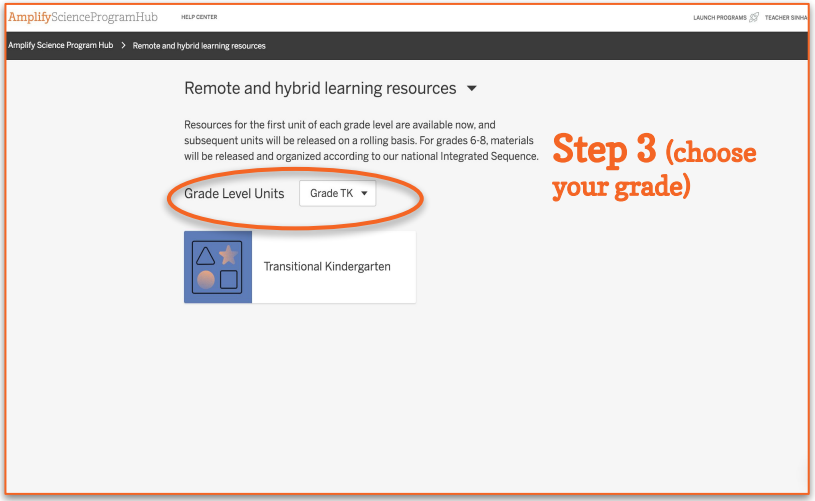
3 = Mild

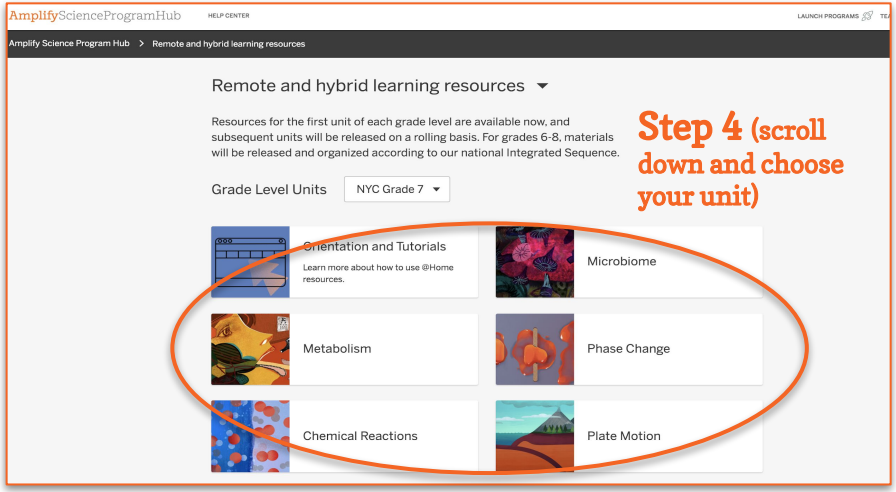
4 = Comfortable

5 = Extremely Comfortable


AmplifyScience
Hello Teacher Sinha-Das
Log Out
Go To My Account
Classroom Language Settings
ELA Resources
Program Hub
LA Science Program Guide
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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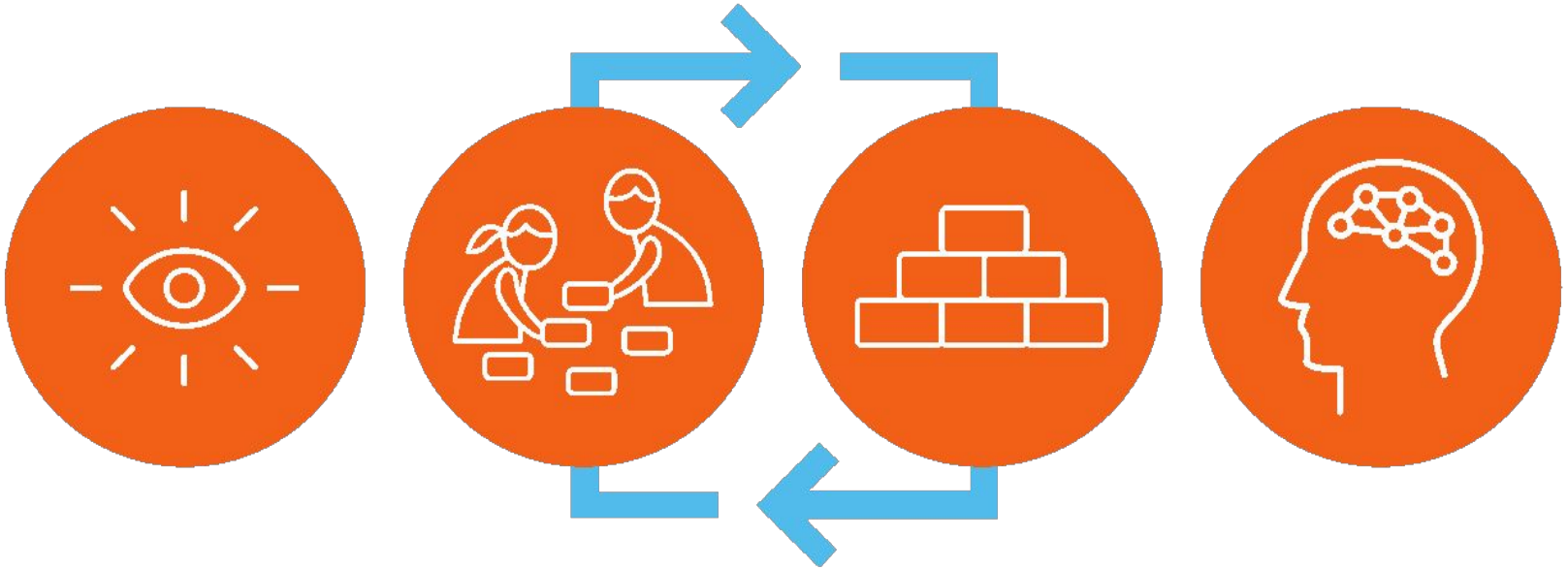
Step 4 (scroll down and choose your unit)
Grade Level Units
NYC Grade 7
Orientation and Tutorials
Learn more about how to use @Home resources.
Microbiome
Metabolism
Phase Change
Chemical Reactions
Plate Motion

Amplify Science approach



Introduce a phenomenon and a related problem

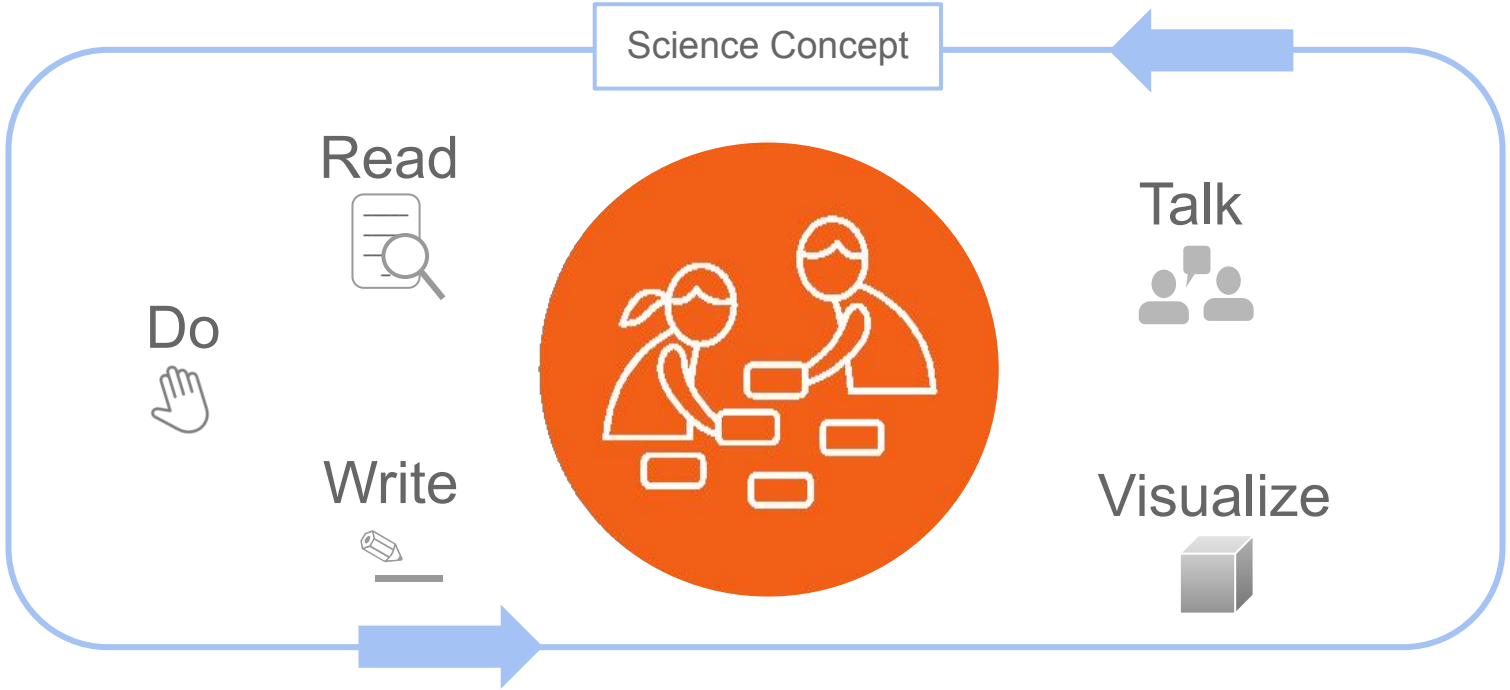
Collect evidence from multiple sources

Build increasingly complex explanations

Apply knowledge to a different context

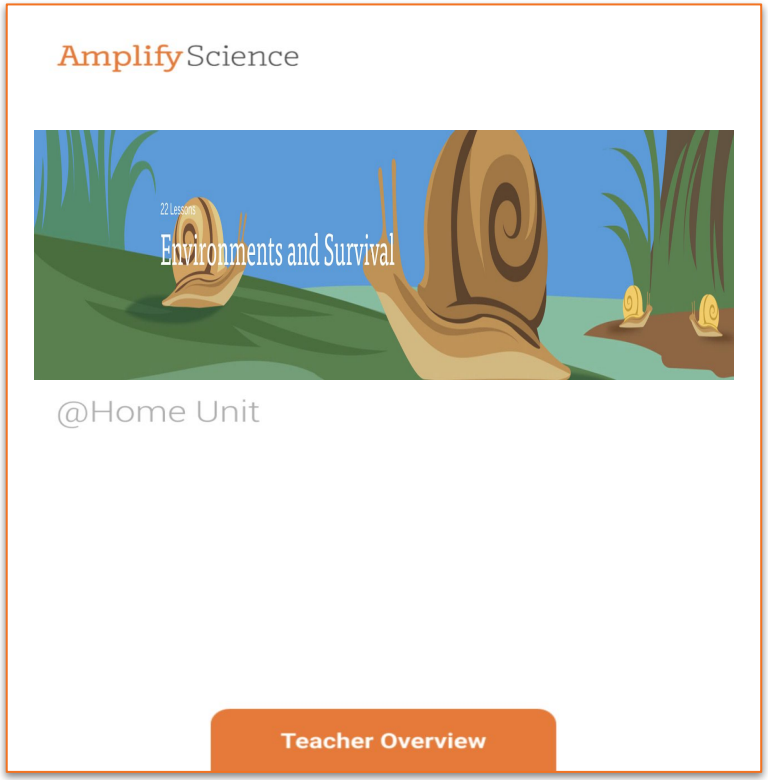
Multimodal learning

Gathering evidence from different sources



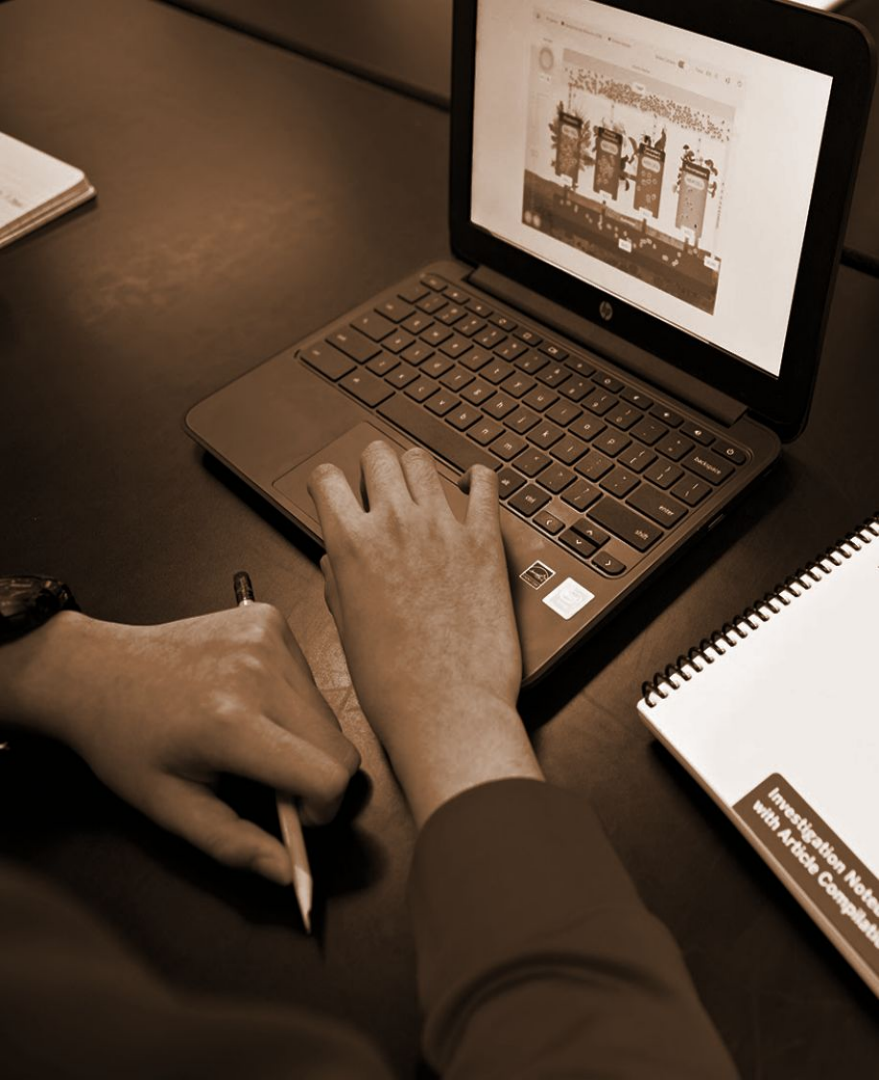
@Home units diverse learner supports

The multimodal approach



- Preserves a **coherent** instructional build
- Retains a **multi-modal** & **3-D** learning approach
- **Adapted** versions of doing, talking, reading, and writing

Questions?



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Revisiting our objectives

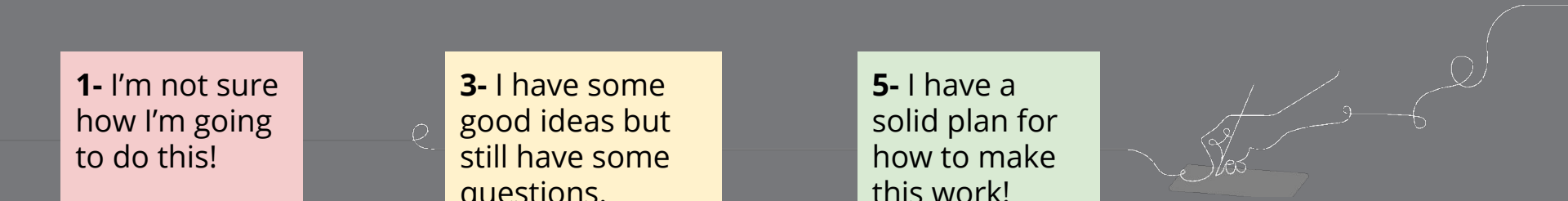
Do you feel ready to...

- Identify the embedded supports for diverse learner needs within your third unit.
- Understand the research-based principles that guided the creation of these supports & strategies in Amplify Science.

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

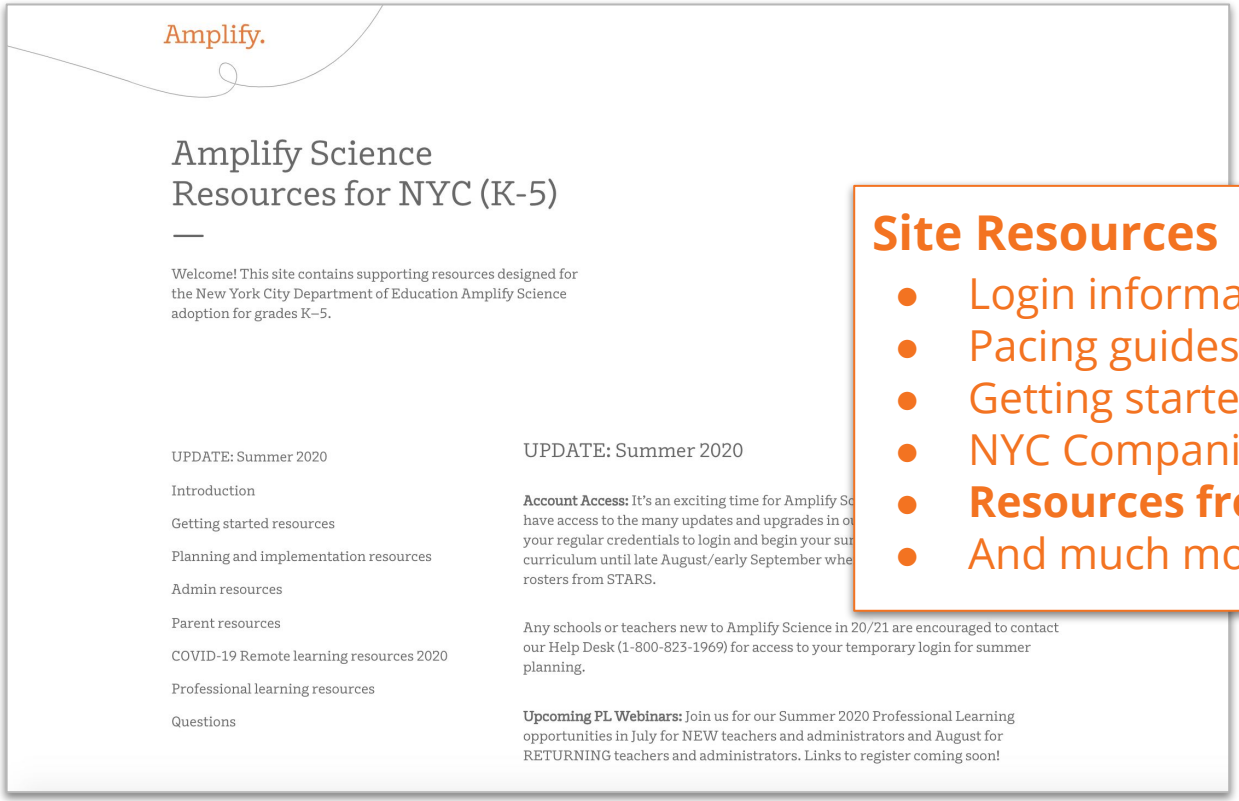
3- I have some good ideas but still have some questions.

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



New York City Resources Site

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



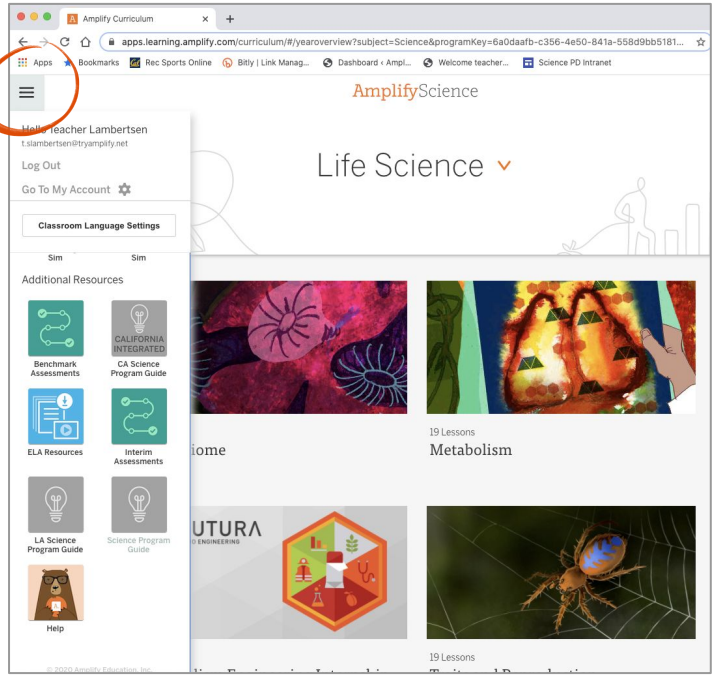
Site Resources

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

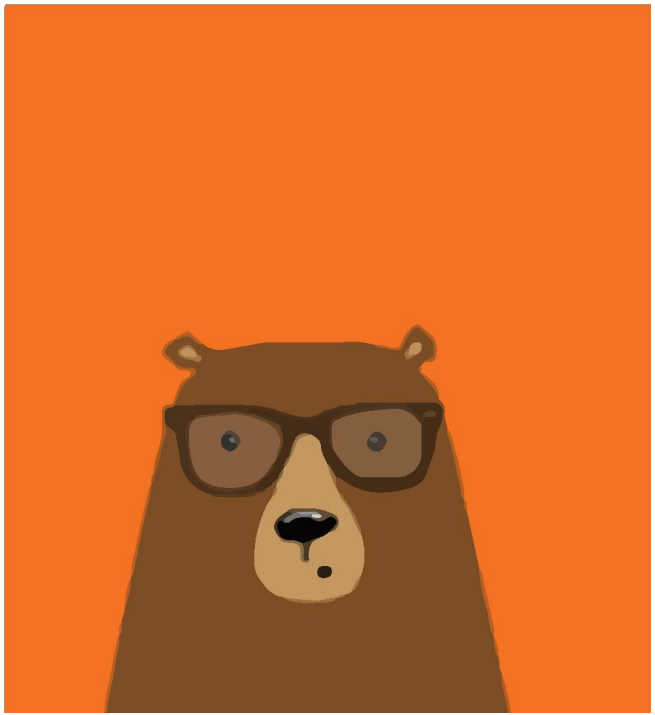
Amplify Science Program Hub

A hub for Amplify Science resources

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



Additional Amplify resources



Program Guide

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

https://my.amplify.com/programguide/content/national/welcome/science/

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:

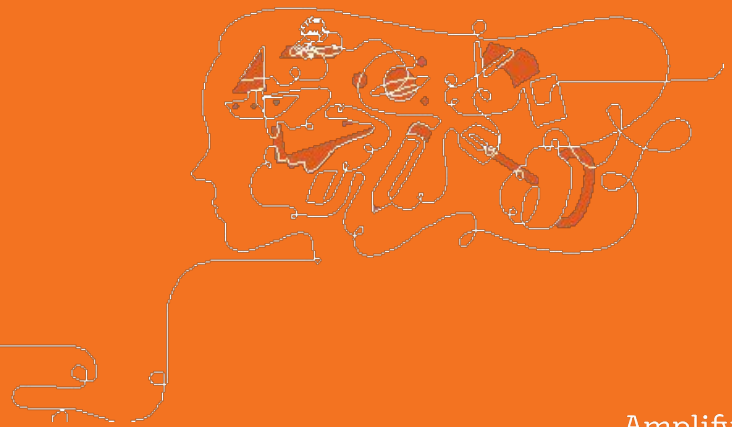
- Identify yourself as an Amplify Science user.
- Note the unit you are teaching.
- Note the type of device you are using (Chromebook, iPad, Windows, laptop).
- Note the web browser you are using (Chrome or Safari).
- Include a screenshot of the problem, if possible.
- Copy your district or site IT contact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

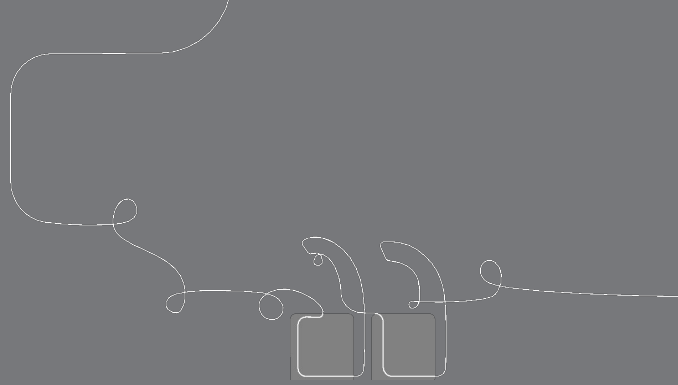

Final Questions?

Please provide us feedback!

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

Presenter name: XXX





30 minute open office hours to follow...