Do Now: *In the chat, share something new you've learned over the last year.*

Amplify Science CALIFORNIA

Wondering About Noises in Trees
Orientation Session

TK, Unit 1

LAUSD
x/x/2021
Presented by Your Name

Workshop goals

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

- Articulate the Amplify Science Approach including multimodal learning
- Describe the storyline of the unit
- Identify how the progression of lessons/activities build upon one another to help students build increasingly complex understandings
- Utilize the flexible implementation structures to plan for the first unit

Remote Professional Learning Orientation and 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?”*

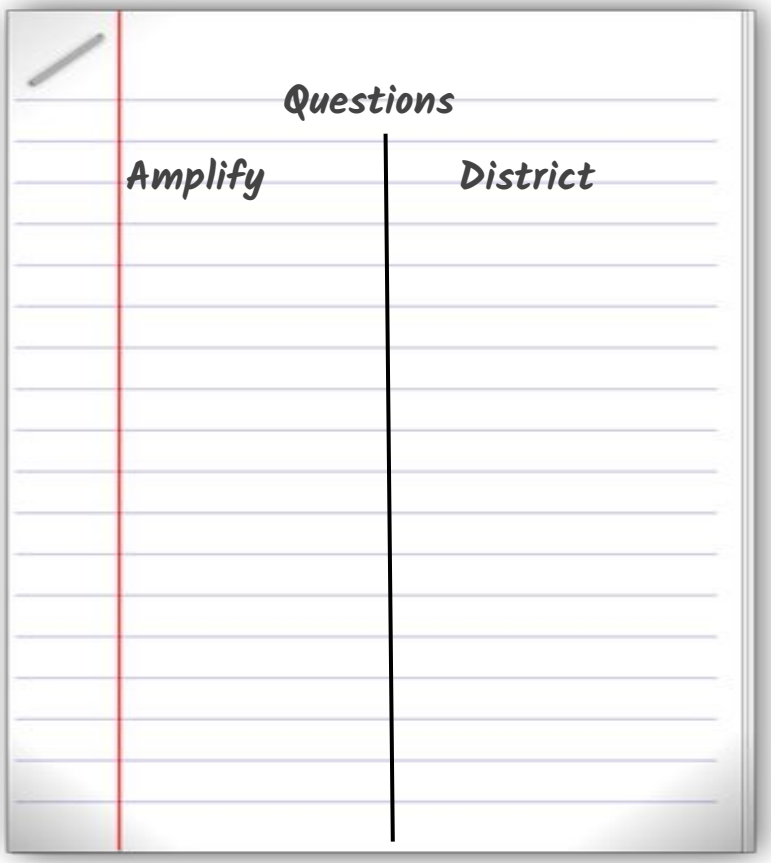
Mute your microphone to reduce background noise unless sharing with the group

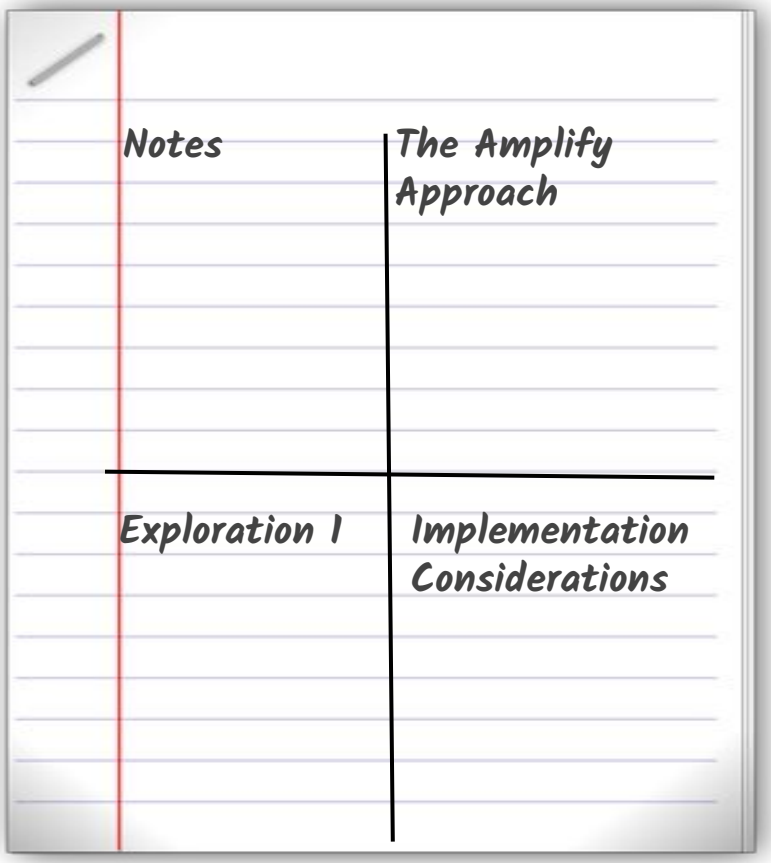
The chat box is available for posting questions or responses to during the training

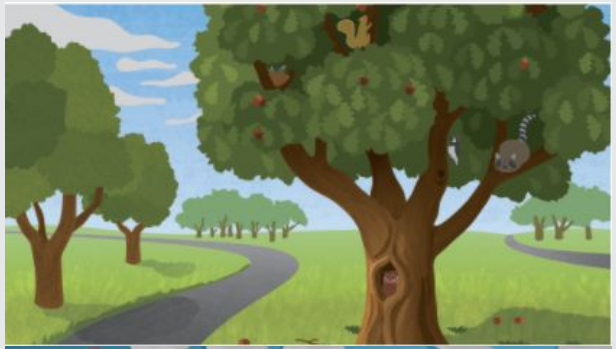
Make sure you have a note-catcher present

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

Capturing key takeaways!







Plan for the day

- Framing the day
- Understanding an exploration
- Exploration and activity progressions
- Preparing to implement
- Closing

Plan for the day

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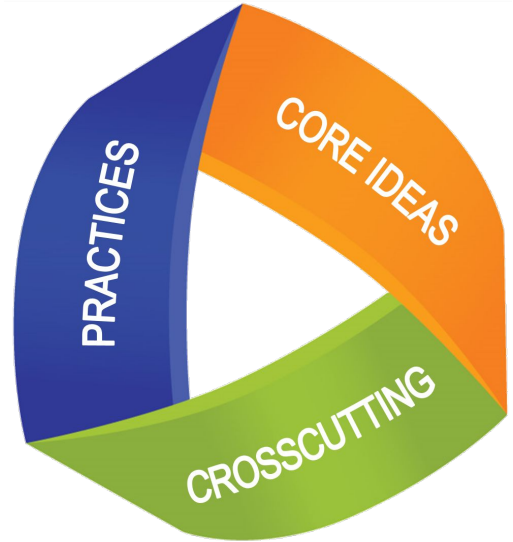
Next Generation Science Standards (NGSS)



Standards as three-dimensional performance expectations that integrate disciplinary core ideas, science and engineering practices, and crosscutting concepts

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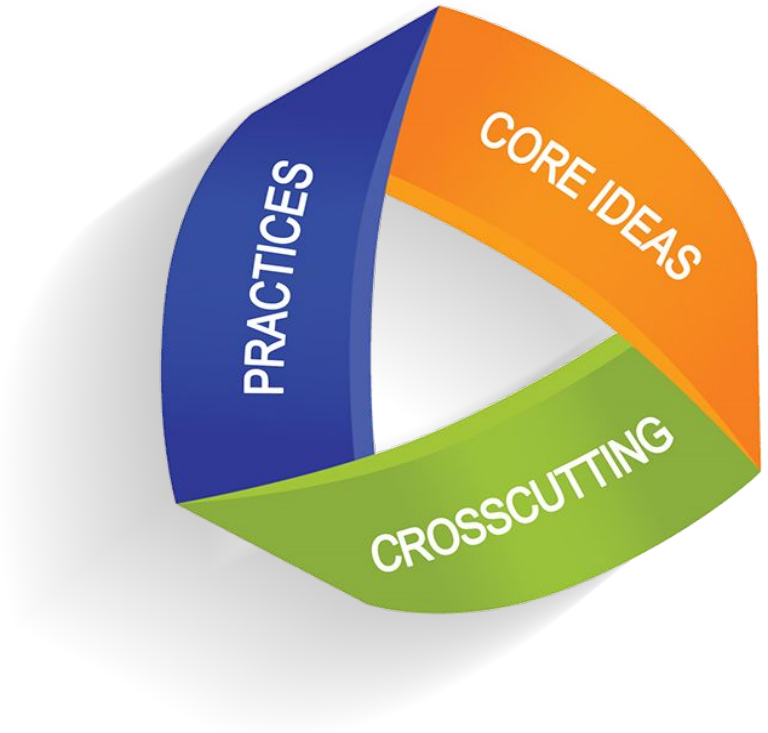
3-Dimensional Approach

What disciplinary core idea do I want students to figure out?

What science and engineering practice will they use to figure it out out?

What crosscutting concept will help them connect what they learn to other ideas in science?



The TK Connection

Amplify Science TK		CA Preschool Learning Foundations		CA NGSS
Students investigate a phenomena (What is making noises in trees?)	→	Phenomena driven learning	→	Centered around events in the natural or constructed world (phenomena)
Students build increasingly complex explanations of the phenomena over the course of the unit through science, language development, literacy, math, movement, etc.	→	Coherent instruction across the curriculum	→	NGSS instruction aligned K-8
Students work to “solve a mystery” about trees (something familiar to kids)	→	Learning relevant to students interest and community needs	→	Stress on human relationships with the natural world

*Sourced from CA Science Framework 2016, Chapter 2 - Curriculum Frameworks (CA Dept of Education) https://www.cde.ca.gov/ci/sc/cf/documents/scifwchapter2.pdf

Amplify Science TK Units

Precursor to the NGSS

DCI's

- Scientific Inquiry
- Physical Science
- Earth Science
- Life Science

SEP's

- Wondering
- Comparing and Looking for Patterns
- Describing what happened
- Collecting Evidence
- Talking, writing and drawing about what we know, read and learn about new discoveries

CCC's

- Patterns
- Cause and Effect

*Sourced from CA Science Framework 2016, Chapter 2 - Curriculum Frameworks (CA Dept of Education) https://www.cde.ca.gov/ci/sc/cf/documents/scifwchapter2.pdf

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UNIVERSITY OF CALIFORNIA, BERKELEY

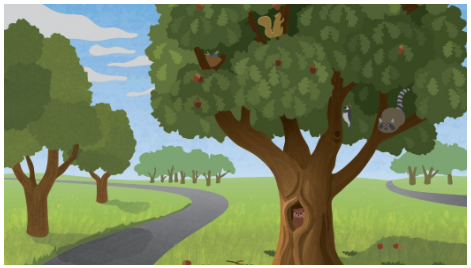
+ Amplify.

AmplifyScience

Amplify engages students in the **1st person** perspective of investigating, designing, modeling and problem solving.

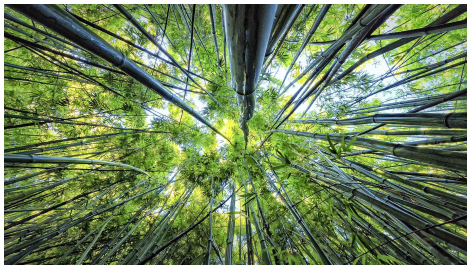
Amplify Science Transitional Kindergarten

Course Structure



Life Science:
Wondering About Trees

Physical Science:
Wondering About Buildings

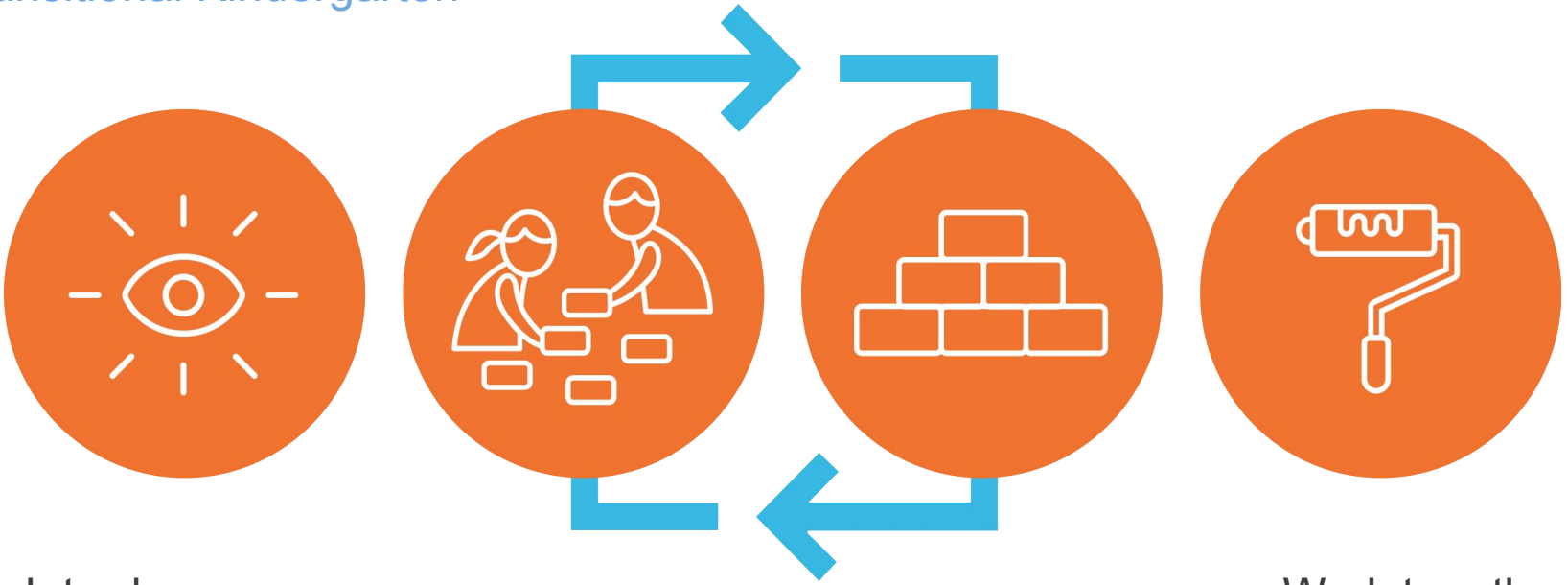


Earth Science:
Wondering About Puddles

Number of Lessons: 20 lessons per unit
Time: 15 mins per lessons
Instructional Time: 4 - 6 weeks per unit

Amplify Science Instructional Approach

Transitional Kindergarten



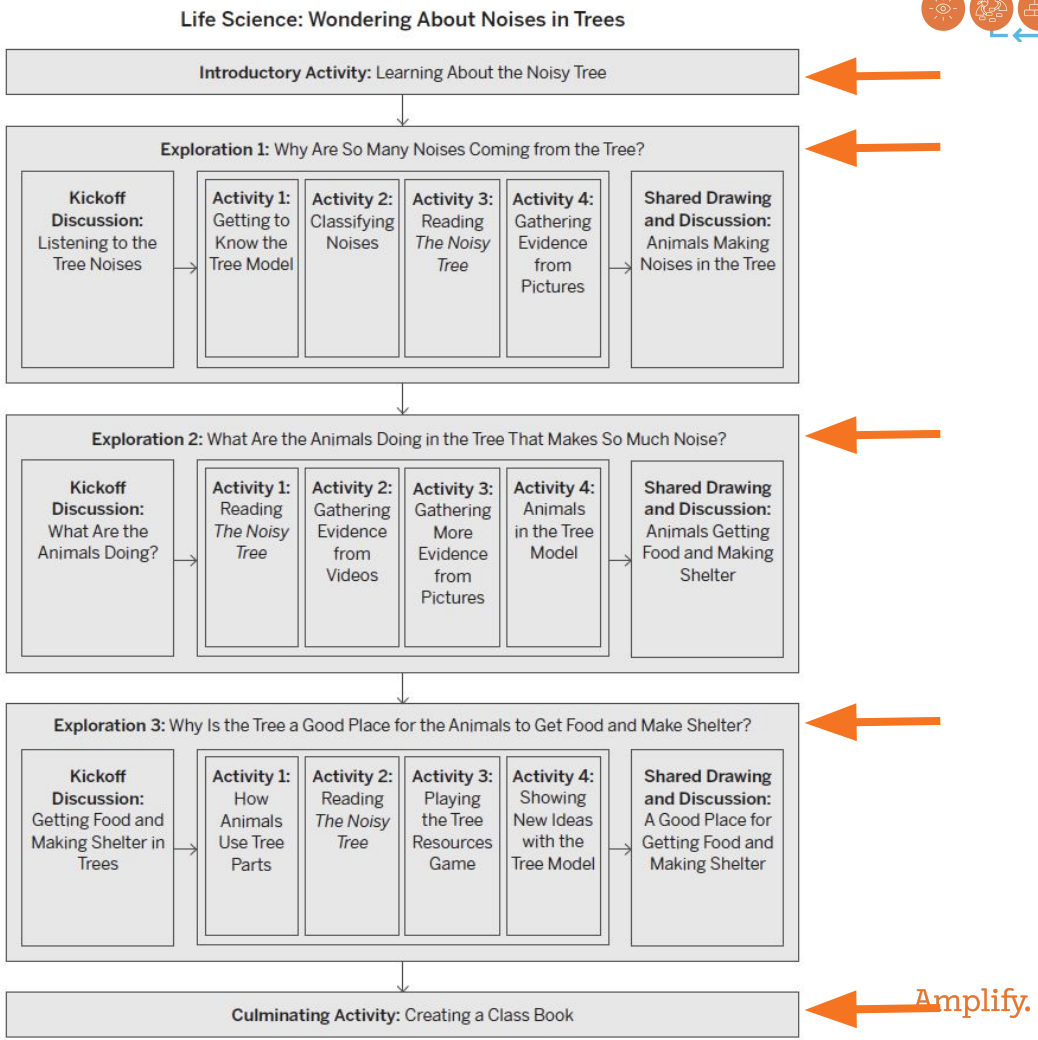
Introduce a phenomenon and mystery problem

Gather evidence from multiple sources

Build science explanations using evidence

Work together as scientists to share ideas in a culminating activity

Unit Structure:
How will students figure out / solve the mystery?



Unit Resources = Teacher's Guide, Big Book, Print Materials

AmplifyScience

Transitional Kindergarten

Life Science

Wondering About Noises in Trees

Teacher's Guide

Story of the Noisy Tree

I like to wonder about things. Then I try to figure out more about them. My mom says that makes me a **scientist**. Scientists try to

I wonder why this beetle is on this flower. I want to figure it out. My mom says scientists try to find **evidence**. They look and listen to figure things out.

Science Question 1:

Why are so many noises coming from the tree?

Life Science: Wondering About Noises in Trees—Science Question 1—Exploration 1—AMP022019.01.TK
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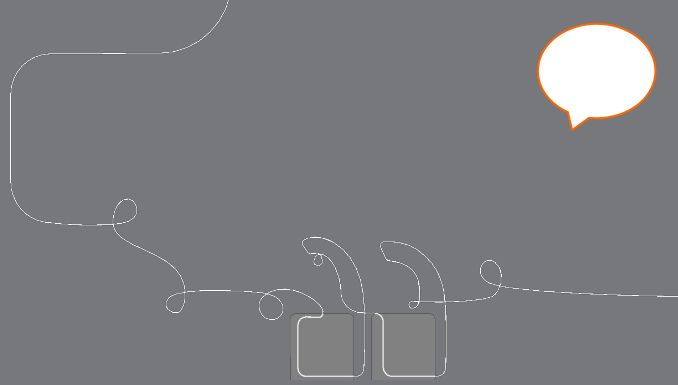
Thought swap

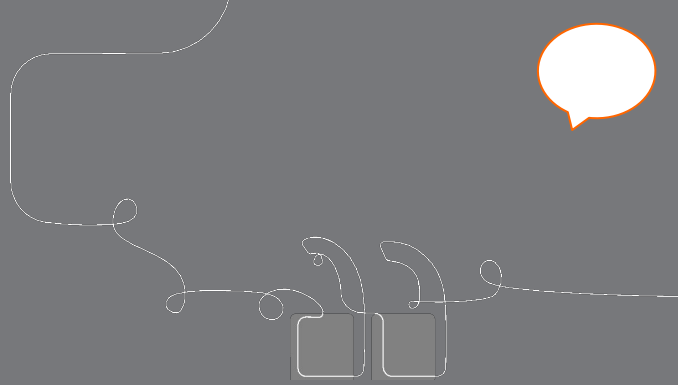
How do you currently teach science in your classroom? (place in the chat)



Thought swap

What are the challenges in teaching science in TK?

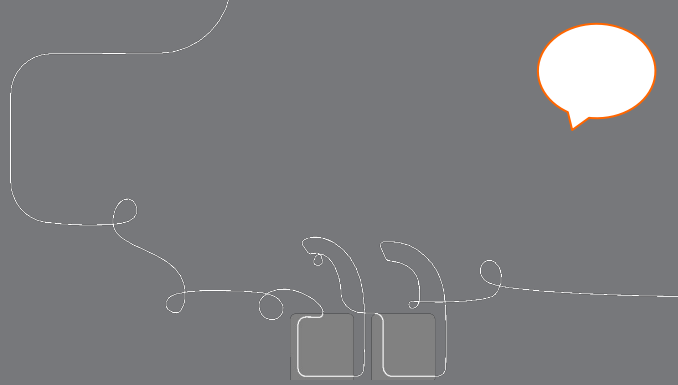
A couple volunteers to speak (also feel free to add to the chat)



Thought swap

What are you looking forward to with a new TK curriculum?

A couple volunteers to speak (also feel free to add to the chat)



As you watch this video, listen carefully to how you know Emma is engaged in phenomena based learning?

What words or phrases does she repeat to let you know?

Use the chat feature to share your thoughts.

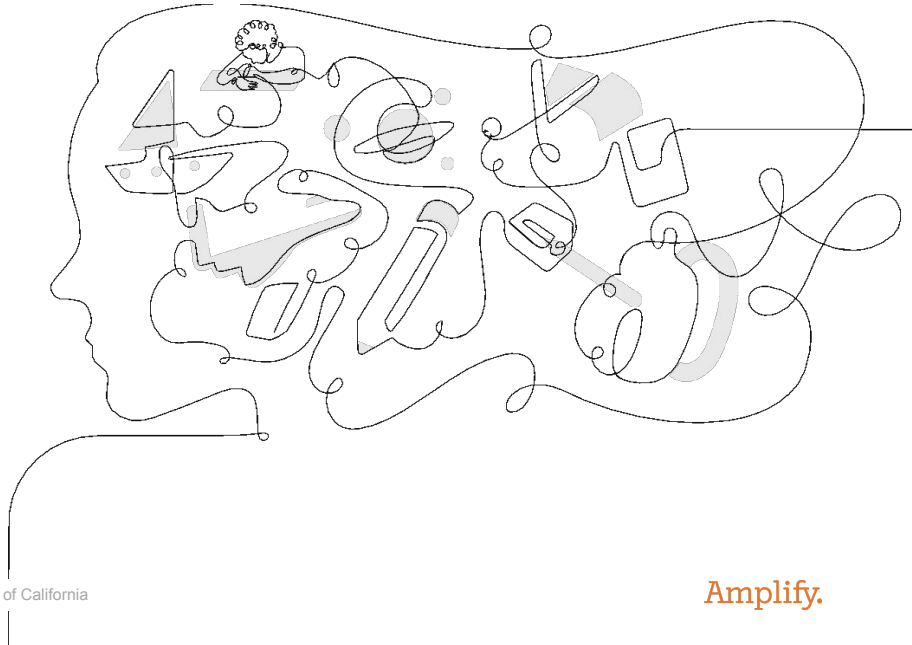
Parent: *"Emma, what are you learning about in Science?"*

Emma: *"All plants need water. Sometimes it rains in the desert. And we're figuring out why does the black one doesn't grow and the pink one and the white one does grow."*

Parent: *"But you don't…"*

Emma: *"And we ummm we figured out the one who had the ummm caterpillars. We already figured that one out cause no caterpillars were there. OK? The End!"*

Figure out, not learn about



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Amplify Science offers students the opportunity to engage in

Problem-based deep dives

Students inhabit the role of scientists and engineers to explain or predict phenomena. They use what they figure out to solve real-world problems.

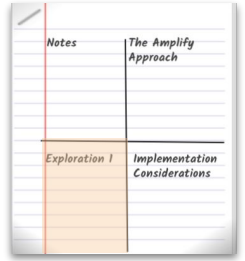
DRAMATIC PLAY will never be the same.

We are now officially: **Scientists!**

Amplify Science: Unit focus on phenomena

Topics	Phenomena
all about sea turtles	How do sea turtles defend themselves from sharks?
inheritance and traits	How do organisms get their traits?
ecosystem restoration	How can an ecosystem be restored to its original healthy state?
all about butterflies	Why are there no more Monarch butterfly caterpillars since the field changed into a garden?

Plan for the day



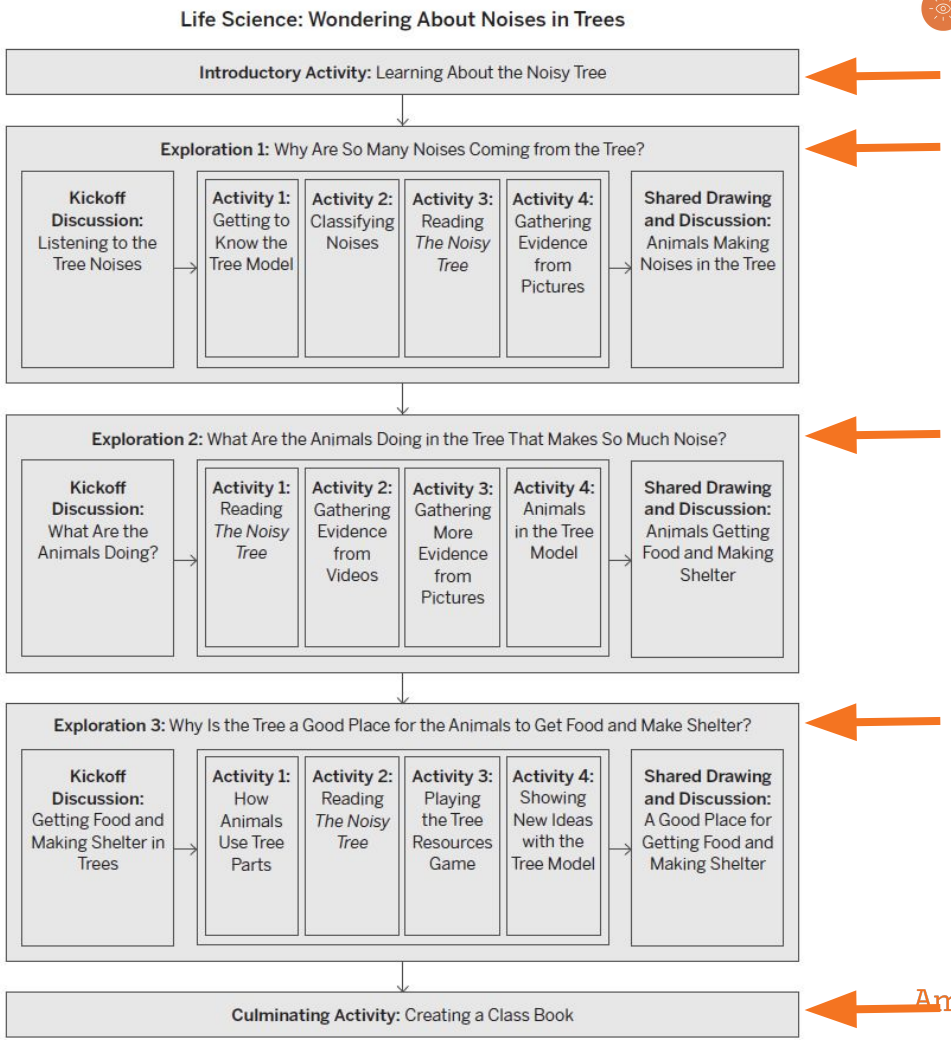
- Framing the day
- Understanding an exploration
- Exploration and activity progressions
- Preparing to implement
- Closing

Understanding an exploration

The purpose of this section is for you to:

- Understand what and how students learn across an exploration in Amplify Science.
- Explore key learning activities in your first unit of instruction.
- Understand the approach to a conceptual build of science knowledge

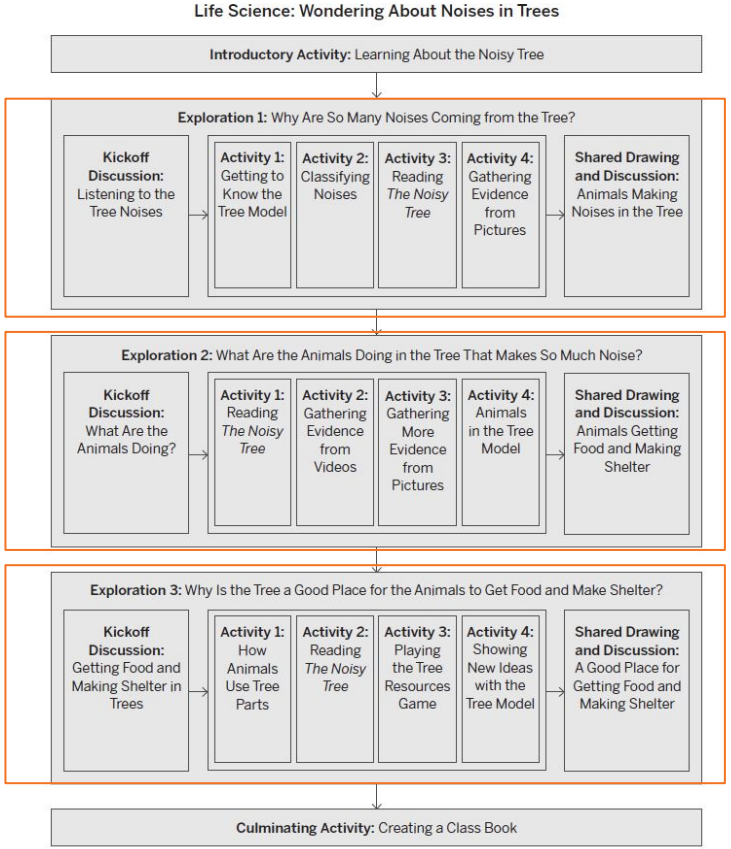
How are the TK Units Structured?



Wondering about Noises in Trees

Analyze the unit structure document. Looking at the Title of each Exploration...

- What do you anticipate students will know and be able to do at the end of each Exploration?
- How do the Exploration Activities support this learning?



TK: Wondering About Noises in Trees: Introductory Activity

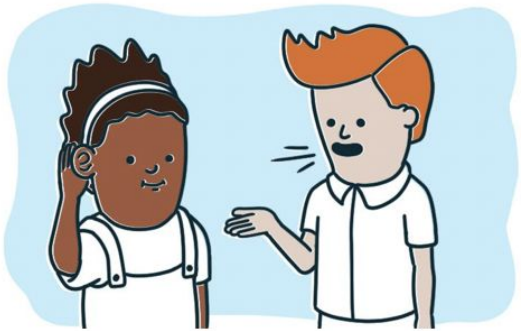
Read Aloud: The Noisy Tree

- Phenomenon: noises coming from trees
- Mystery students solve: what causes these noises and why.
- Role: scientists

Shared Listening

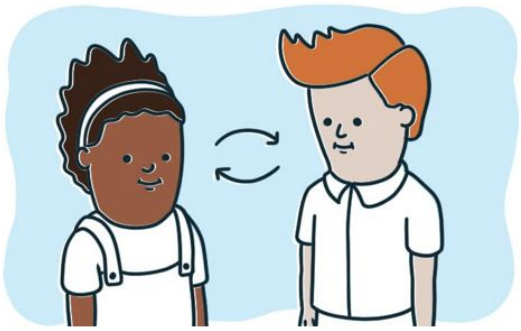
1.

Partner A shares.
Partner B listens.



2.

Partner B repeats.
I heard you say...

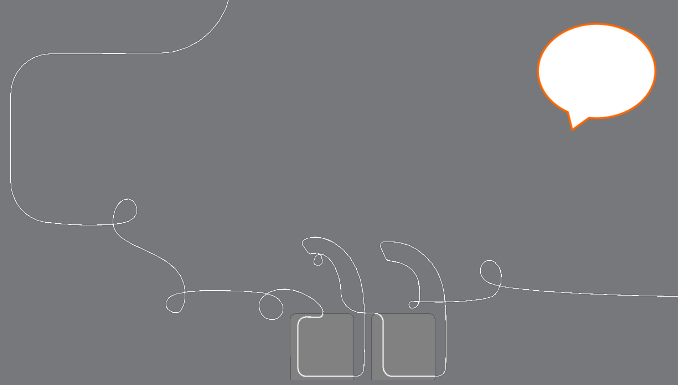


3.

Partners switch.

Let’s Chat...

What preconceptions or misconceptions could students have about what is making the noises they hear in trees?



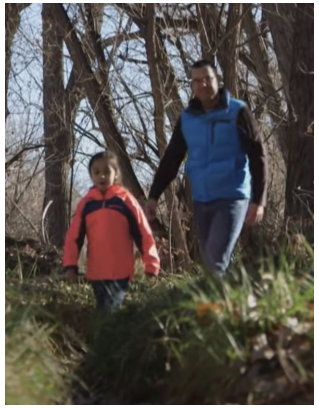
Extension Opportunity

Teacher Support

Instructional Suggestion

Providing More Experience: Class Nature Walk

You can extend the Introductory Activity by taking a class nature walk if you have access to a natural or semi-natural area with trees. This area can be a part of the schoolyard, a small local park, or a larger protected area. Let students know that they will look and listen to figure out more about what is in, on, and around the trees. Guide students on a walk, pausing frequently to model looking and listening closely to the trees. For example, you can say, "I look closely at this tree, and I see leaves." "I look closely at these leaves, and I see that they have lines on them." "I listen closely to this tree, and I hear chirping." During the class nature walk, invite students to share any observations they make.



Instructional Suggestion

Providing More Experience: Home Connection

The Introductory Activity includes an optional Home Connection that introduces families to one of the science practices students will learn in this unit. Home Connections can encourage interaction and discussion between students and their families around science concepts, which is beneficial for student learning. The Home Connection: Observing Trees invites students and an adult to observe sights and sounds near a tree or several trees. Make one copy of the Home Connection: Observing Trees copymaster for each student to take home.

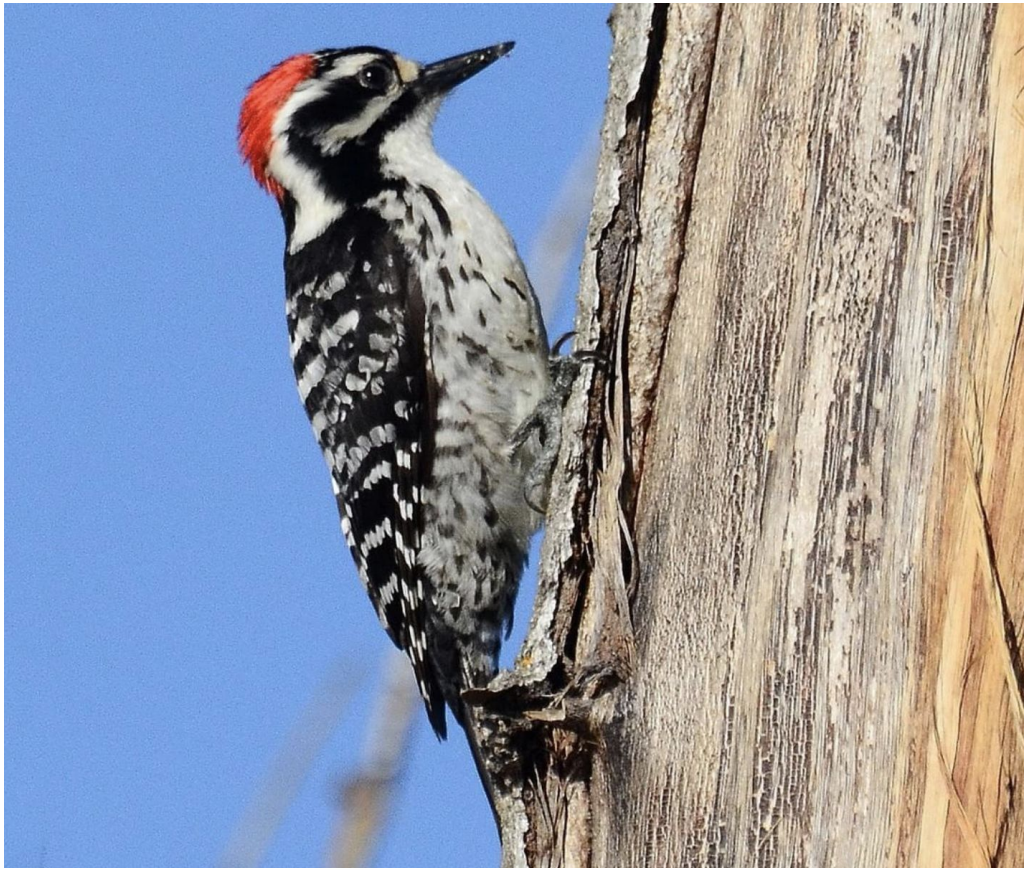
Exploration One: Kickoff Discussion

Science Question #1: Why are so many noises coming from the tree?

Activities:

- Revisit The Noisy Tree
- Listening to noises
- Shared Listening Routine

Sound #1: Tap-Tap-Tapping

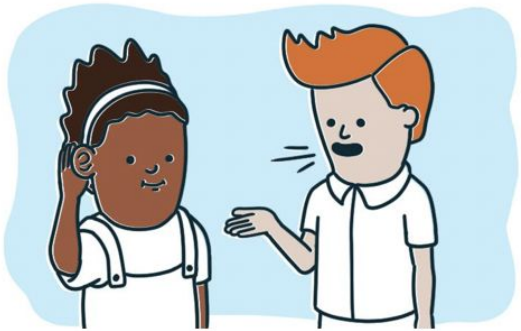


Sound #2: Crunching noise

Shared Listening

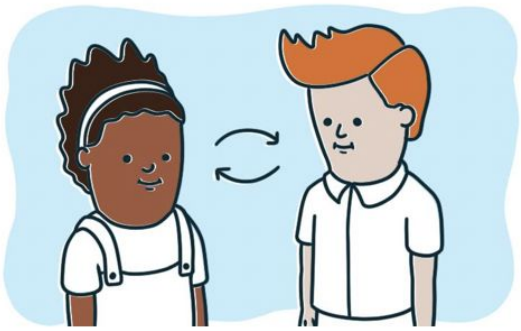
1.

Partner A shares.
Partner B listens.



2.

Partner B repeats.
I heard you say...



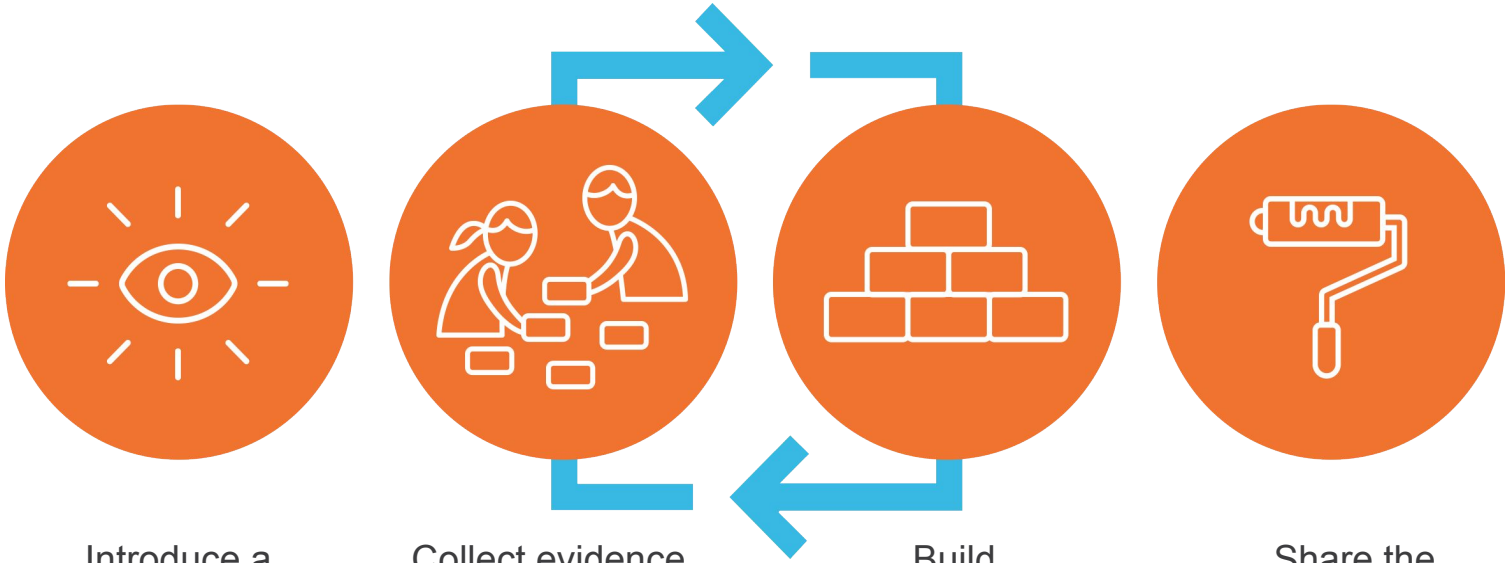
3.

Partners switch.

Let’s Chat..

- How can you integrate & personalize the Instructional Routines to your own classroom layout & organizational structure?

Describe the Amplify Science Instructional Approach.



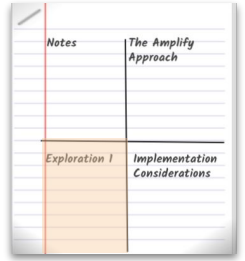
Introduce a phenomenon and a related problem

Collect evidence from multiple sources

Build increasingly complex explanations

Share the information learned like scientists

Plan for the day



- Framing the day
- Understanding an exploration
- Exploration and activity progressions
- Preparing to implement
- Closing

Coherence

from knowing a list of ideas

to knowing how ideas fit together

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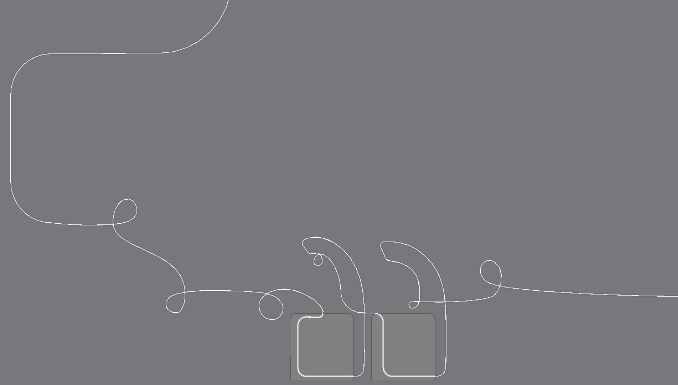
TK: Wondering About Noises in Trees: Review

Framing Activity

What do you hear? What do you picture?

As you listen to the noises write what you think it is and what makes you think that

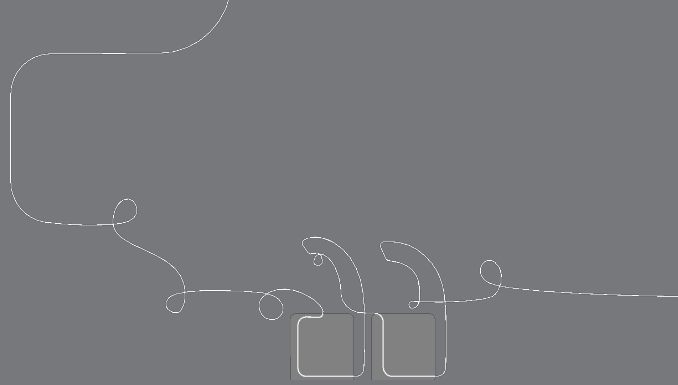


Animals in Trees

What do you hear? What do you picture?

Let’s Chat:

What prior knowledge did you bring that helped you make the conclusions about the noises you heard?



Exploration One: Activity Stations

How would you introduce these activities in your classroom?

Activity One:

Observe the tree model and think about how the students would make the different types of leaves and add them to the model. Discuss how the model is similar and different to a real tree.

Activity Two:

Listen to different noises and make drawings of ideas about what made each noise. Look for patterns in the data you've recorded

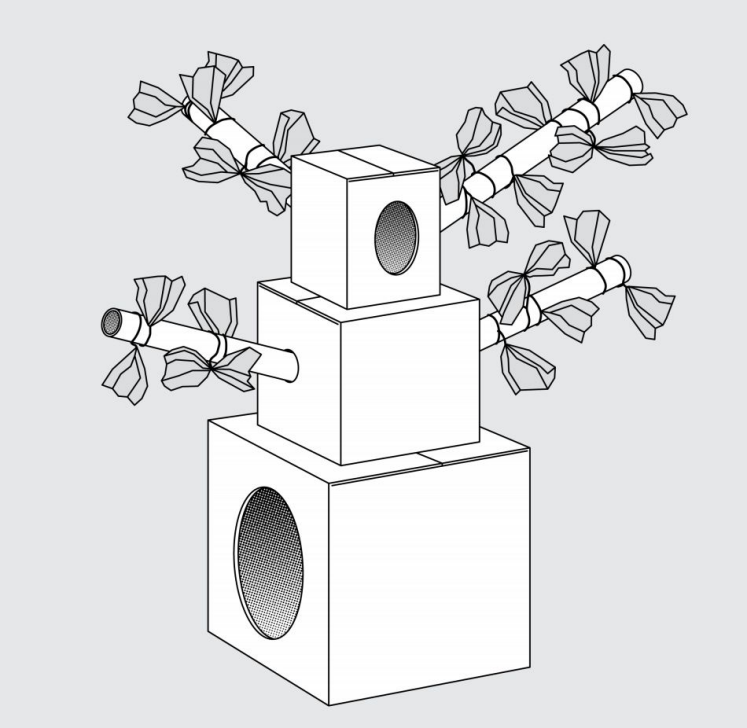
Activity Three:

Read the next section of The Noisy Tree in which the girl makes new observations of the tree in the park.

Activity Four:

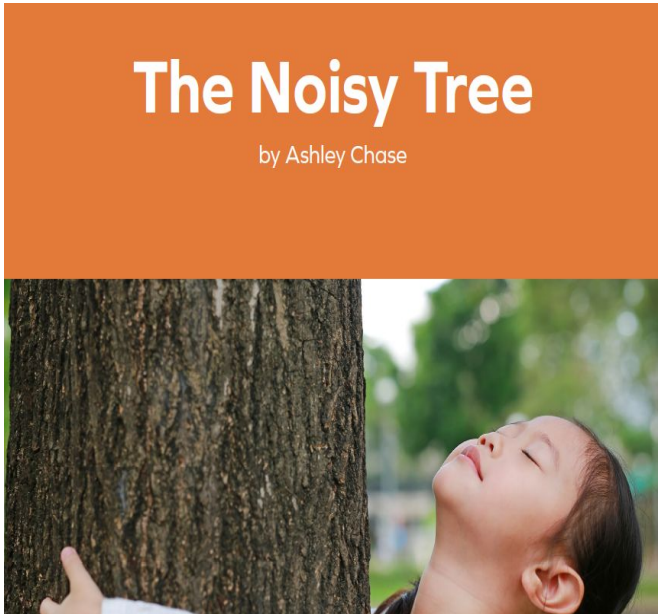
Observe pictures of trees and notice there are animals in many of the trees. Use the language frame to describe your observations.

Activity One: Tree Model



Activity Two: Recordings of Noises

Activity Three: The Noisy Tree



Activity Four: Tree Cards

Work Time: Unpacking Exploration One

Resource to use:

- Exploration 1 PDF

Assignments

- Activity 1
- Activity 2
- Activity 3
- Activity 4

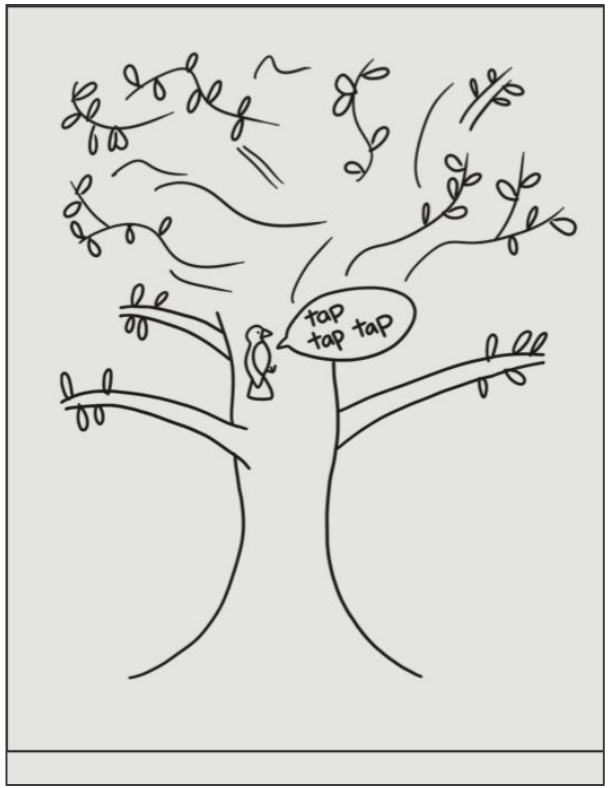
Questions to answer:

- How will this activity help students develop an understanding of the new key concepts?
- How will this activity help students answer the science question?
- How could you structure this activity in your classroom?

Share Out

- Give a synopsis of the activity the students do and what they learn.
- What are some notes you made about this activity to support your students?

Closing Activity



There is a _____ in the tree.

owl raccoon bear koala

wasp butterfly gecko

bat monkey bird porcupine

Let’s Chat

What are some ways you could structure the activities in your classroom?

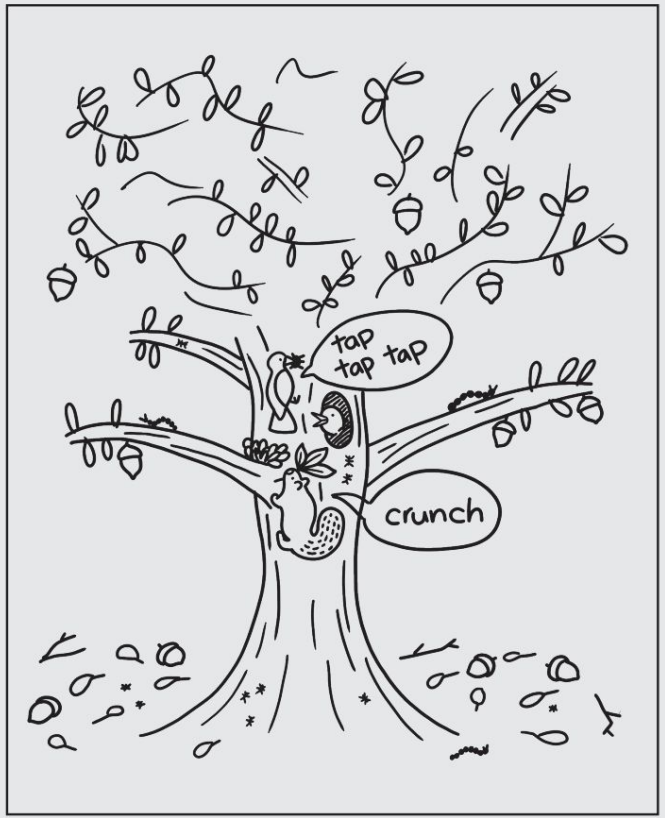
Exploration Two

Students gather evidence about different kinds of things that animals do in trees.

Exploration Three

Students gather evidence about why trees are good places for animals to get food and make shelter.

Shared Writing and Drawing

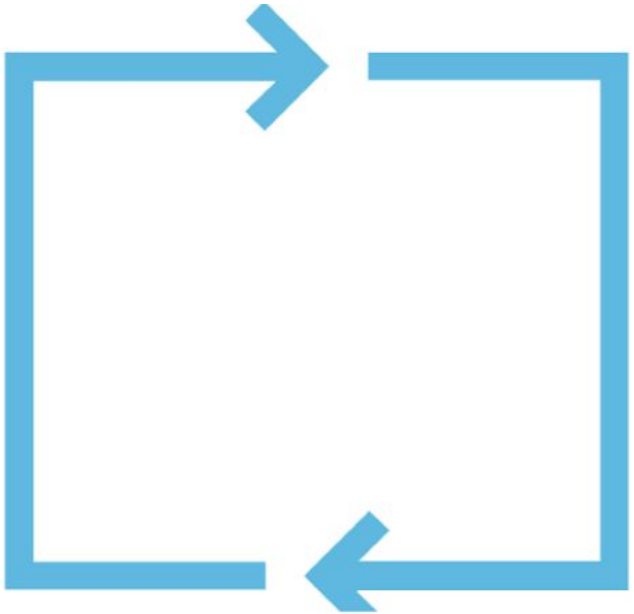


There is a woodpecker in the tree.

The woodpecker makes a tapping noise when it is getting food.

The woodpecker is getting food in the tree because the tree has bugs.

What types of multimodal learning did you see?

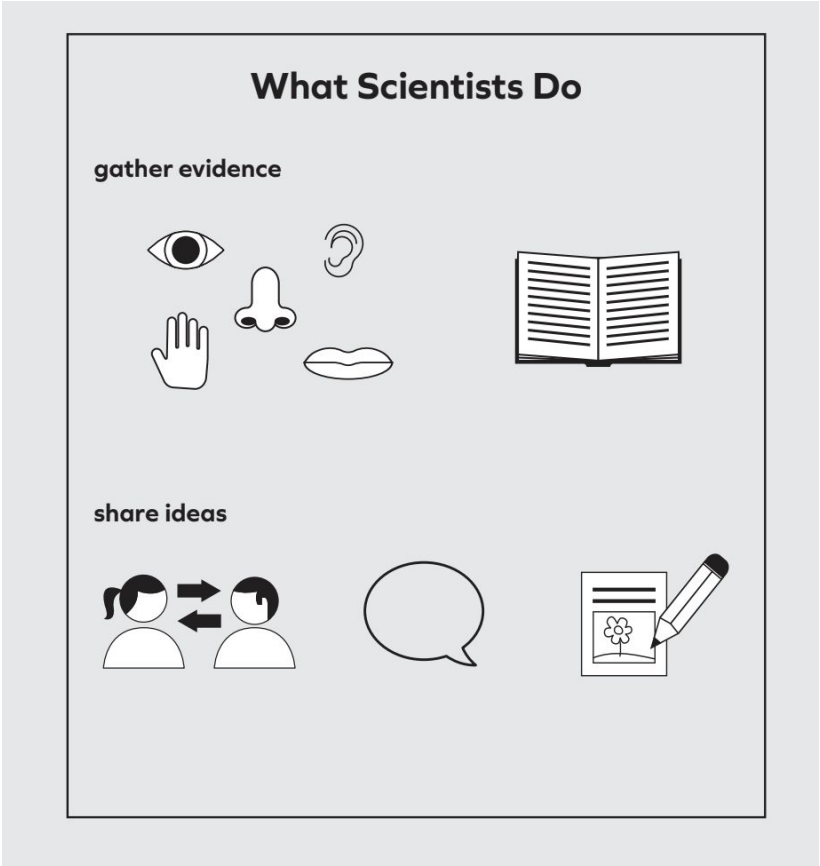


Do,
Talk,
Read,
Write,
Visualize

Culminating Activity

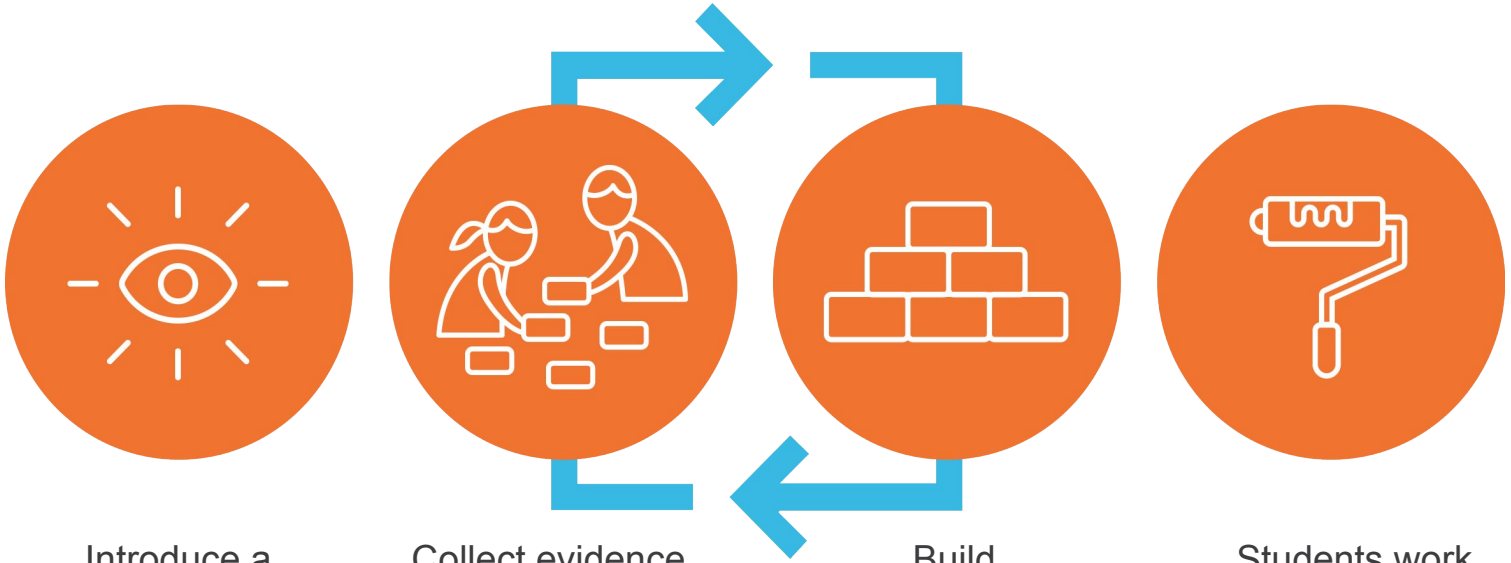
Students create pages for a class book about how animals use trees.

What Scientists Do?



Amplify.

How does the Amplify Science Instructional Approach support Unit Coherence?



Introduce a phenomenon and a related problem

Collect evidence from multiple sources

Build increasingly complex explanations

Students work together as scientists in a culminating activity

Plan for the day

- Framing the day
- Understanding an exploration
- Exploration and activity progressions
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- Closing

Flexible Implementation: Activity Structures

- When might you use each of the implementation structures?
- Which of these do you see working best for your students? Why?

Small Groups: Teacher introduces the activities in small groups as part of the centers/small group time. (Optional: making the previously covered activities independent centers)

Large Group/Multiple Centers: Introduce the activities first in large groups, then once they have all been done together open them up to independent centers

Large Group/Single center: Introduce the activity as a large group and then open them individually to independent centers

Exploration One: Activity Stations

How would you introduce these activities in your classroom?

Activity One:

Observe the tree model and think about how the students would make the different types of leaves and add them to the model. Discuss how the model is similar and different to a real tree.

Activity Two:

Listen to different noises and make drawings of ideas about what made each noise. Look for patterns in the data you've recorded

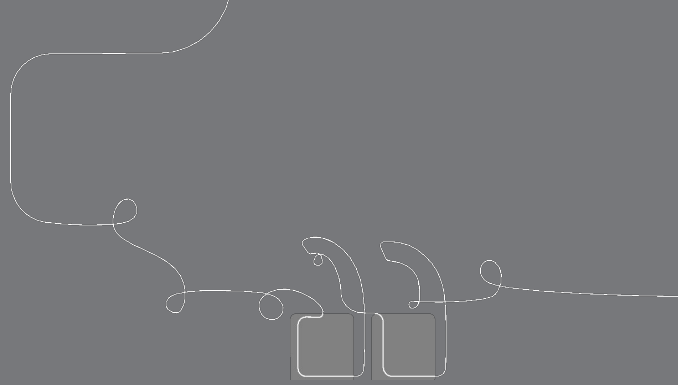
Activity Three:

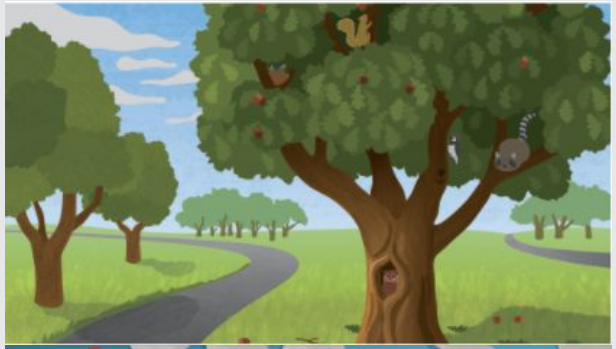
Read the next section of The Noisy Tree in which the girl makes new observations of the tree in the park.

Activity Four:

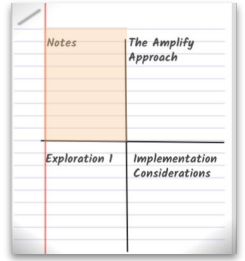
Observe pictures of trees and notice there are animals in many of the trees. Use the language frame to describe your observations.

Questions?





Plan for the day



- Framing the day
- Understanding an exploration
- Exploration and activity progressions
- Preparing to implement
- Closing

Workshop goals reflection

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

- Articulate the Amplify Science Approach including multimodal learning
- Describe the storyline of the unit
- Identify how the progression of lessons/activities build upon one another to help students build increasingly complex understandings
- Utilize the flexible implementation structures to plan for the first unit

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

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

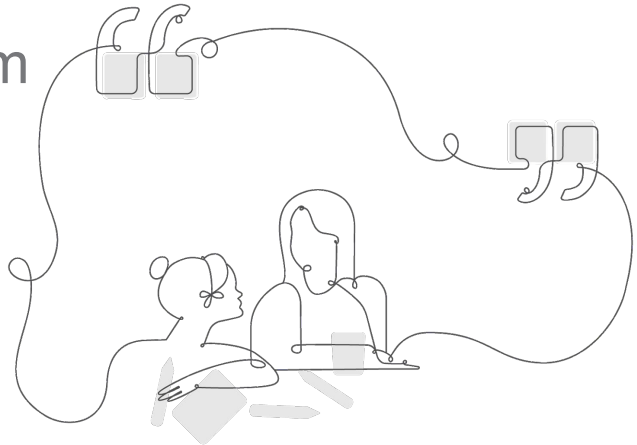
5- I have a solid plan for how to make this work!

Upcoming LAUSD Office Hours

Final opportunity for this school year:

- Thursday, May 27 from 4:30-5:30pm

http://bit.ly/TK-6OfficeHours



We would love your input on PD for Back to School, 2021-22

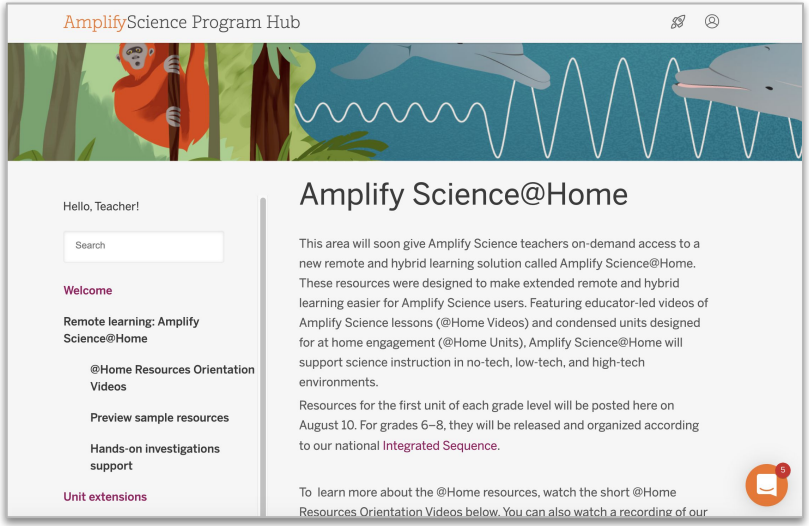
2021-22 Amplify Science BACK TO SCHOOL PD Survey [LAUSD]

The questions below will help us plan for back to school PD sessions over the summer and in the fall.

Amplify Science Program Hub

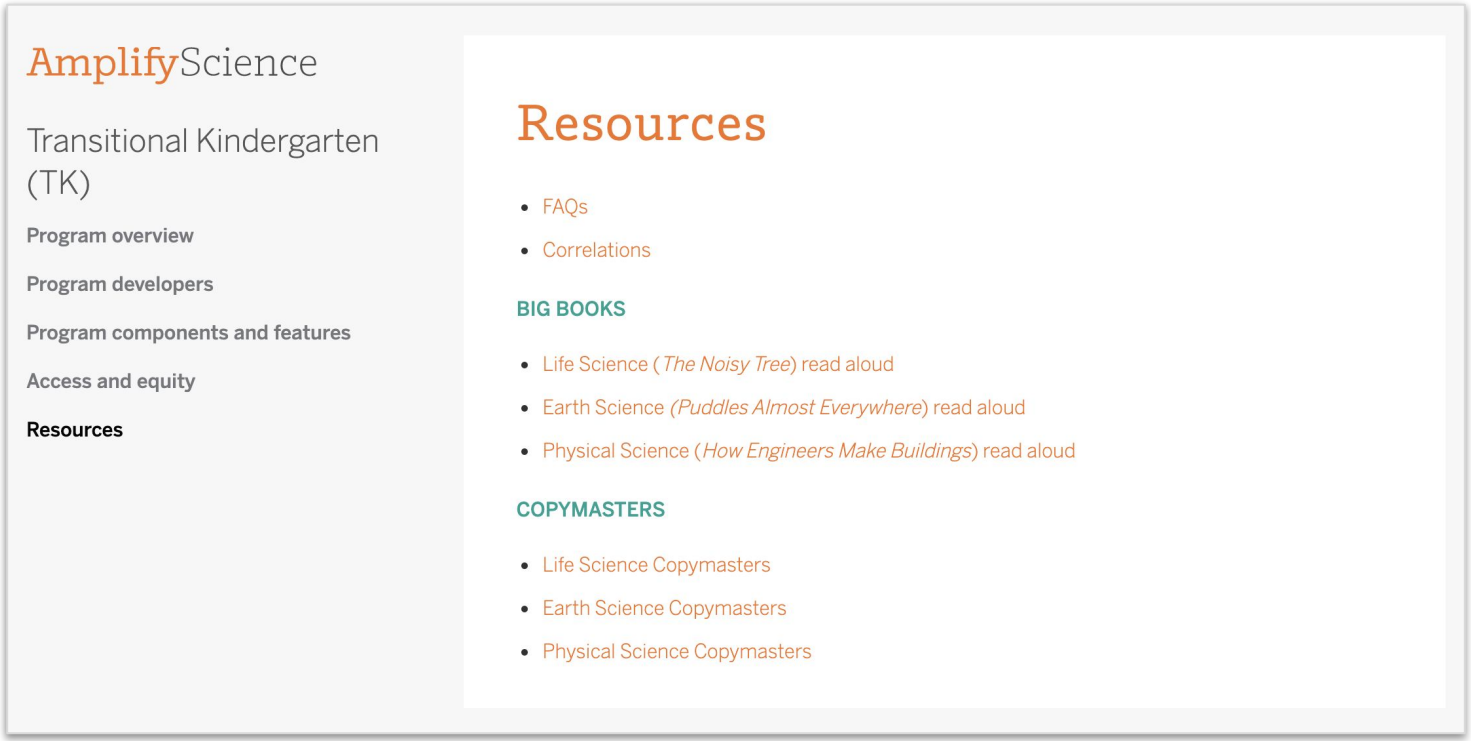
A new hub for Amplify Science resources

- Videos and resources to continue getting ready to teach
- Amplify@Home resources
  - **TK big book read aloud videos**



science.amplify.com/programhub
username: sciencelearningca
password: DemoOnly1234

TK Program Overview Website



my.amplify.com/programguide/content/national/tk-resources/tk/

California TK Website

amplify.com/science-california-review-tk/

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

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.

Amplify.

Welcome to Amplify Science!

This site contains supporting resources designed for the Los Angeles Unified School District Amplify Science adoption for grades TK–8.

All LAUSD schools have access to Amplify Science resources at this time.

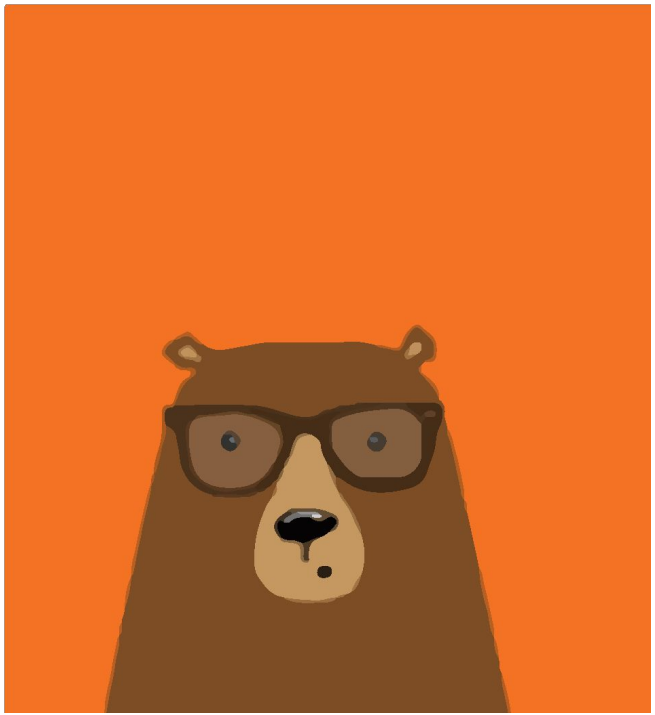
Click here for Remote Learning Resources for Amplify Science

Click here to go back to the LAUSD homepage.

Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

https://amplify.com/lausd-science/

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

Creating Assignments in Schoology

- Click Add Materials.
- Select Add Assignment.
- Fill out the Create Assignment form.
- Options. Use Options to turn on/off the following features: Use Individually Assign to only display the assignment to a specific member of the course or a grading group. ...
- Click Create to complete

LAUSD Shared Logins

AmplifyScience

Go to: my.amplify.com

A. Log In with Amplify

District Shared Logins		
Grade	**Username**	**Password**
Kindergarten	LAUSDscienceK	LAUSD1234
1	LAUSDscience1	LAUSD1234
2	LAUSDscience2	LAUSD1234
3	LAUSDscience3	LAUSD1234
4	LAUSDscience4	LAUSD1234
5	LAUSDscience5	LAUSD1234
6	LAUSDscience6	LAUSD1234
7	LAUSDscience7	LAUSD1234
8	LAUSDscience8	LAUSD1234

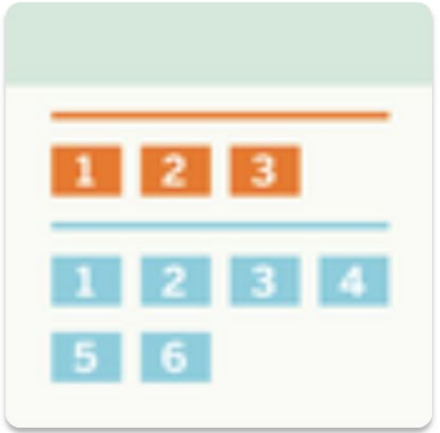
Elementary Student Apps Shared Logins

English

- Username: ampsci123
- Password: ampsci123

Spanish

- Username: ampsci123sp
- Password: ampsci123sp



Elementary Student Apps