Amplify Science

# Patterns of Earth and Sky

## Deconstructing Unit Phenomena

New York City Public Schools
July 2019
Presented by Your Name

# Workshop goals

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

- Deconstruct unit phenomena to understand how it gives students access to NYSSLS.
- Articulate the alignment between the Progress Build and the assessment system.
- Plan opportunities to engage students in academic discourse.
- Plan unit pacing with a focus on supporting key connections throughout the unit.

Patterns of Earth and Sky

# Plan for the day

- Welcome and reflection
- Unpacking unit phenomena
- Meaningful student discourse
- Unit preview
- Planning and connecting to unit phenomena
- Closing

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# Norms: Establishing a culture of learners

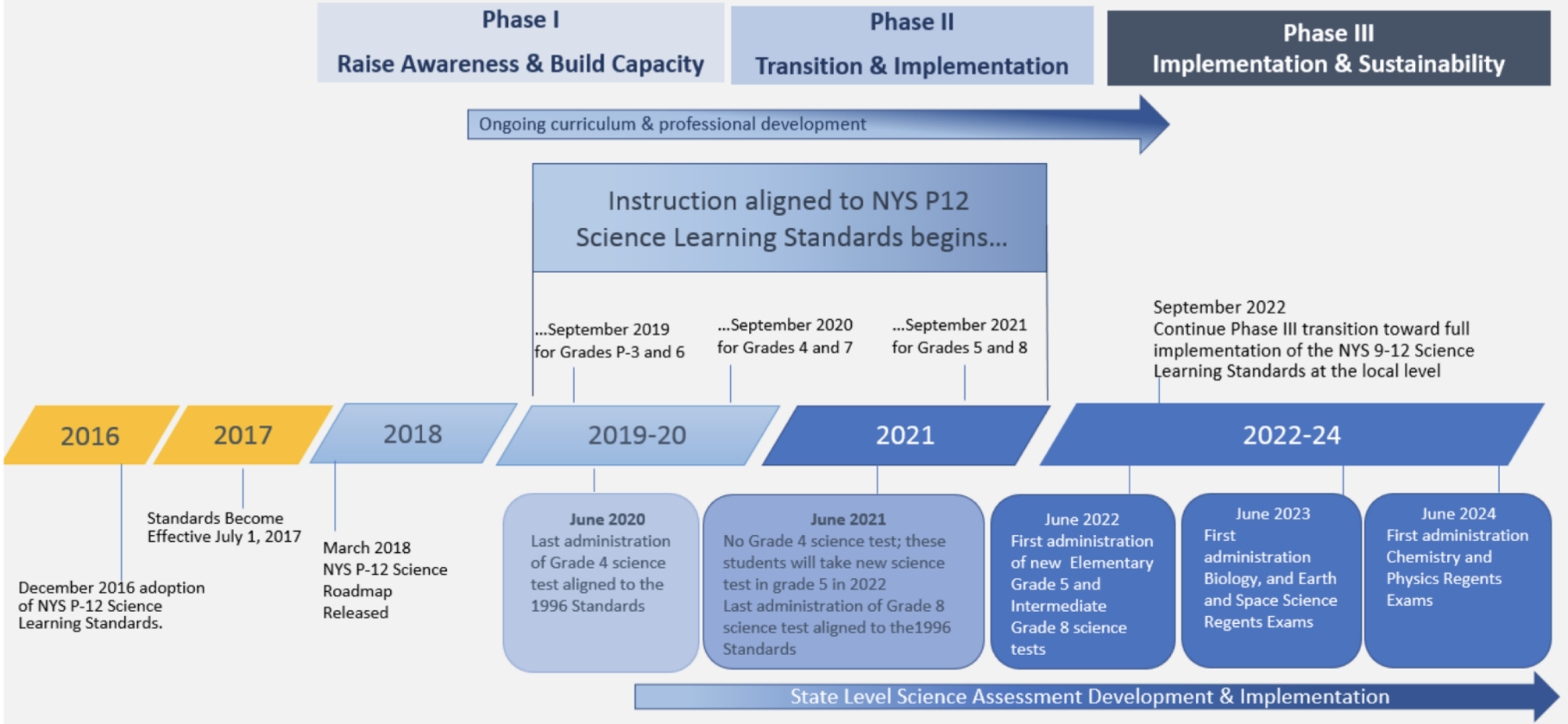
**Take risks:** Ask any questions, provide any answers.

**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.

# New York State P-12 Science Standards Development, Adoption, and Implementation



# Planning your year

## Overview: Amplify Science K-5 Course Structure

PRIMARILY LIFE SCIENCE  PRIMARILY PHYSICAL SCIENCE  PRIMARILY EARTH SCIENCE

All units have 22 lessons except Grade 5: The Earth System, which has 26 lessons.

| | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | Minutes per lesson |
|---|---|---|---|---|---|---|---|---|---|---|---|
| K | Needs of Plants and Animals | | | Pushes and Pulls | | | | Sunlight and Weather | | | 45 |
| 1 | Animal and Plant Defenses | | | Light and Sound | | | | Spinning Earth | | | 45 |
| 2 | Plant and Animal Relationships | | | Properties of Materials | | | | Changing Landforms | | | 60 |
| 3 | Balancing Forces | | | Inheritance and Traits | | Environments and Survival | | | Weather and Climate | | 60 |
| 4 | Energy Conversions | | | Vision and Light | | Earth's Features | | | Waves, Energy and Information | | 60 |
| 5 | Patterns of Earth and Sky | | | Modeling Matter | | The Earth System (26 lessons) | | | Ecosystem Restoration | | 60 |

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# NYC Middle School
# Unit Pacing Calendars and Unit Guides




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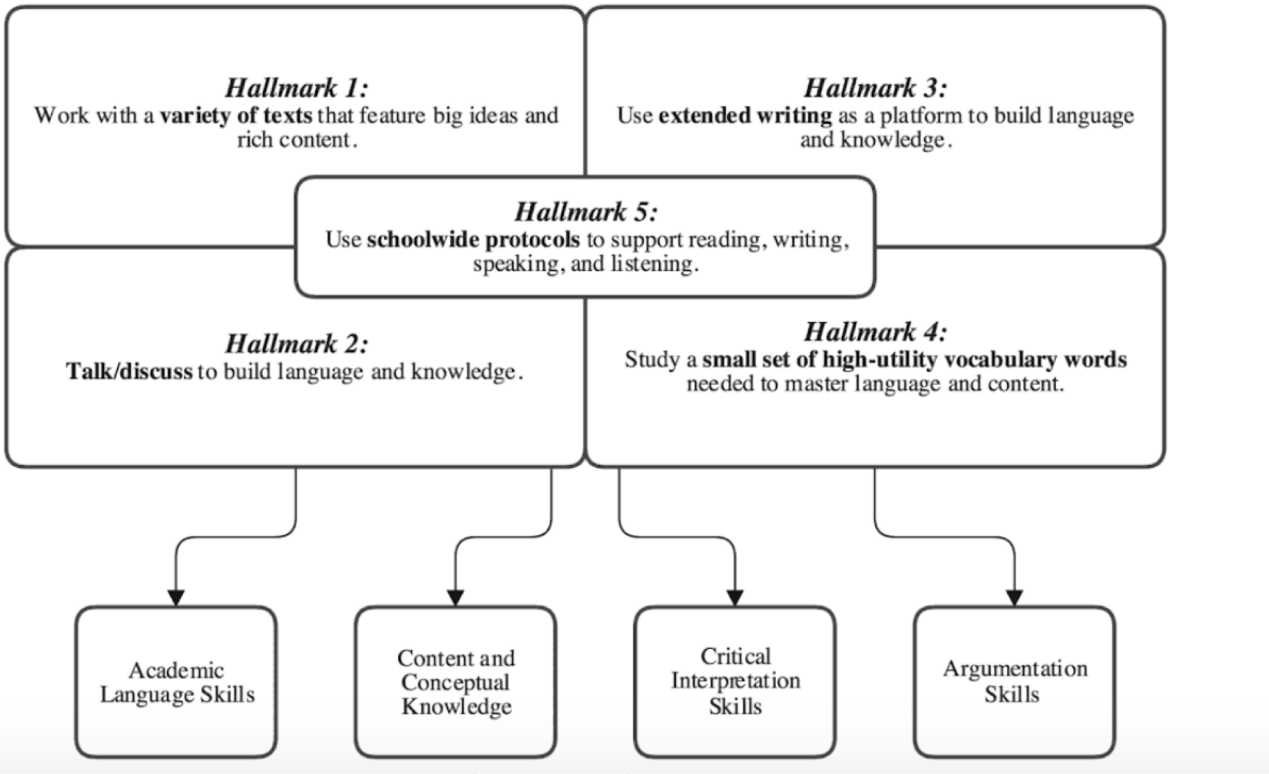
# Advanced literacies

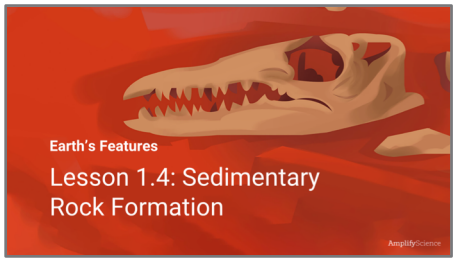
## Strengthening the instructional core

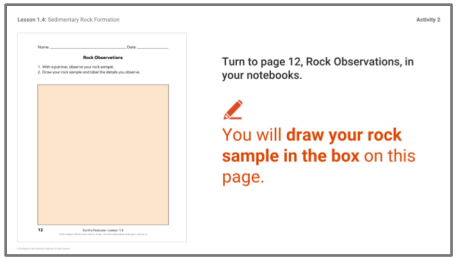


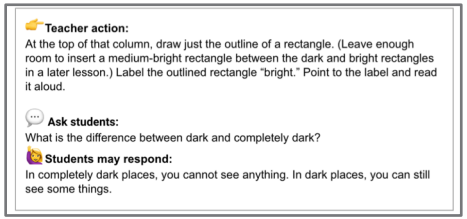
# Danielson framework

- Domain 1: Planning and Preparation
  - 1a. Demonstrating Knowledge of Content and Pedagogy
  - 1e. Designing Coherent Instruction
- Domain 3: Instruction
  - 3b. Using Questioning and Discussion Techniques
  - 3c. Engaging Students in Learning
  - 3e. Using Assessments in Instruction

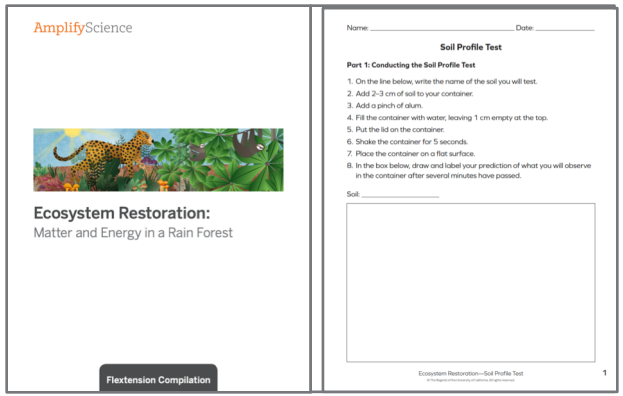
# Amplify Science: What's new for 2019-2020



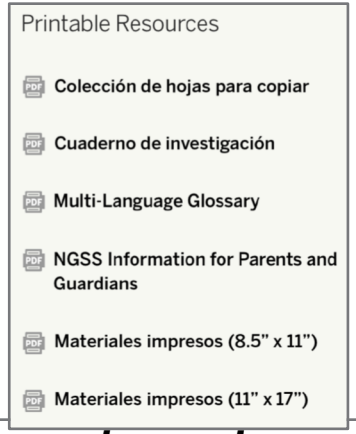




Classroom Slides




Hands-on Flextensions





Spanish Digital Teacher's Guide



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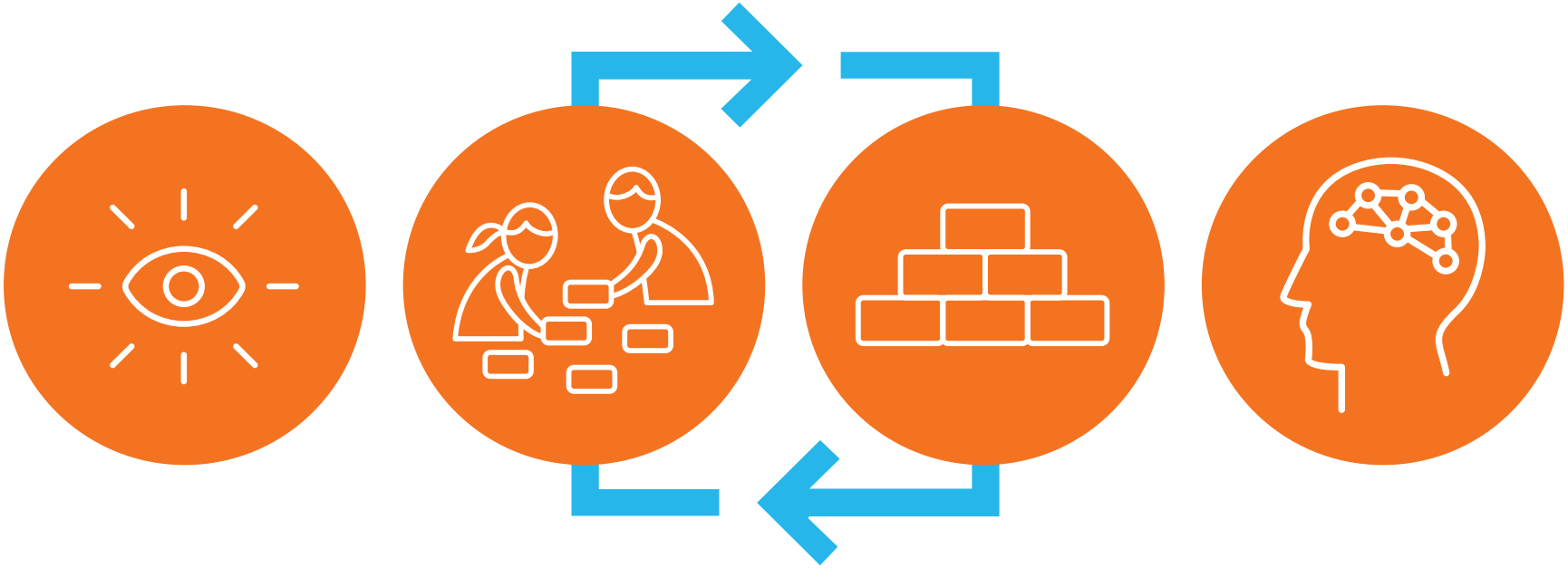
# Unpacking Unit phenomena

## The purpose of this section is to help you:

- Understand how the three dimensions of the NYSSLS/NGSS comprise Performance Expectations.
- Analyze three dimensions of the unit and describe how they support students in figuring out unit phenomenon.
- Visualize the relationship between the unit phenomenon, Progress Build, and embedded assessment opportunities.

# 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

# Creating a visual story of the unit

Part 1: Access materials
Part 2: Organize cards
Part 3: Annotate your visual
Part 4: Share out

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# Meaningful student discourse

## The purpose of this section is to help you:

- Understand academic language and academic discourse.
- Leverage discourse routines to engage ALL students in academic discourse.
- Obtain peer feedback to inform implementation in your classroom.

# Meaningful student discourse


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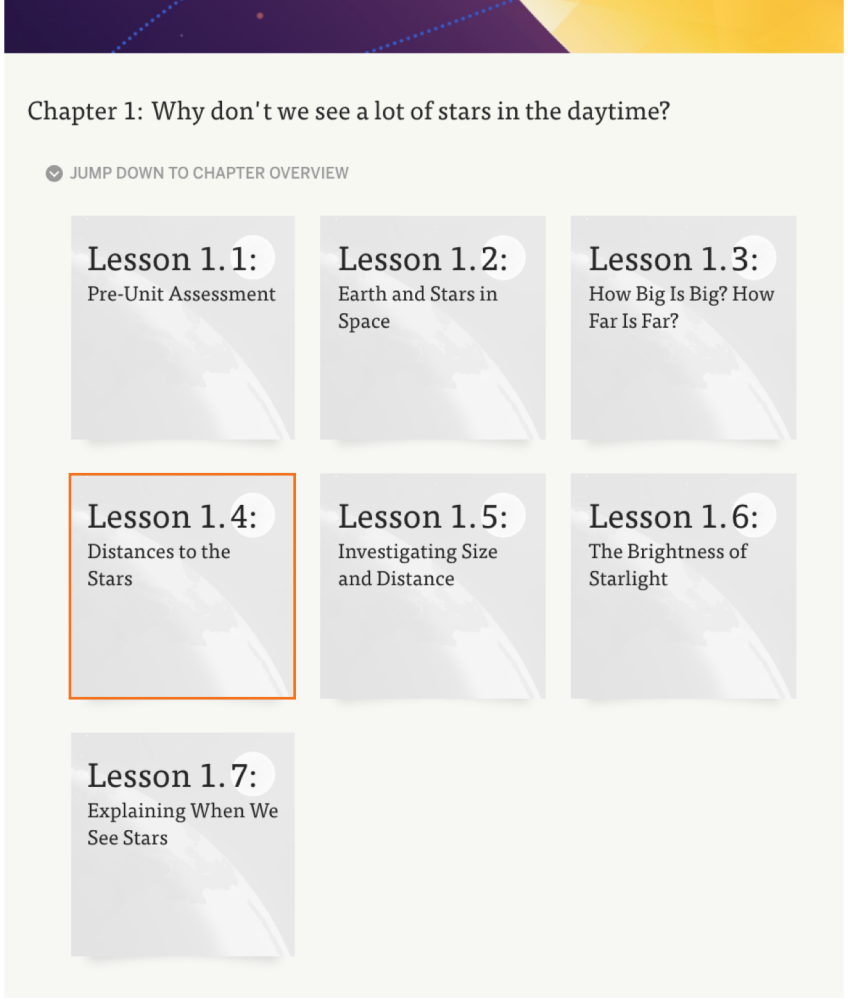
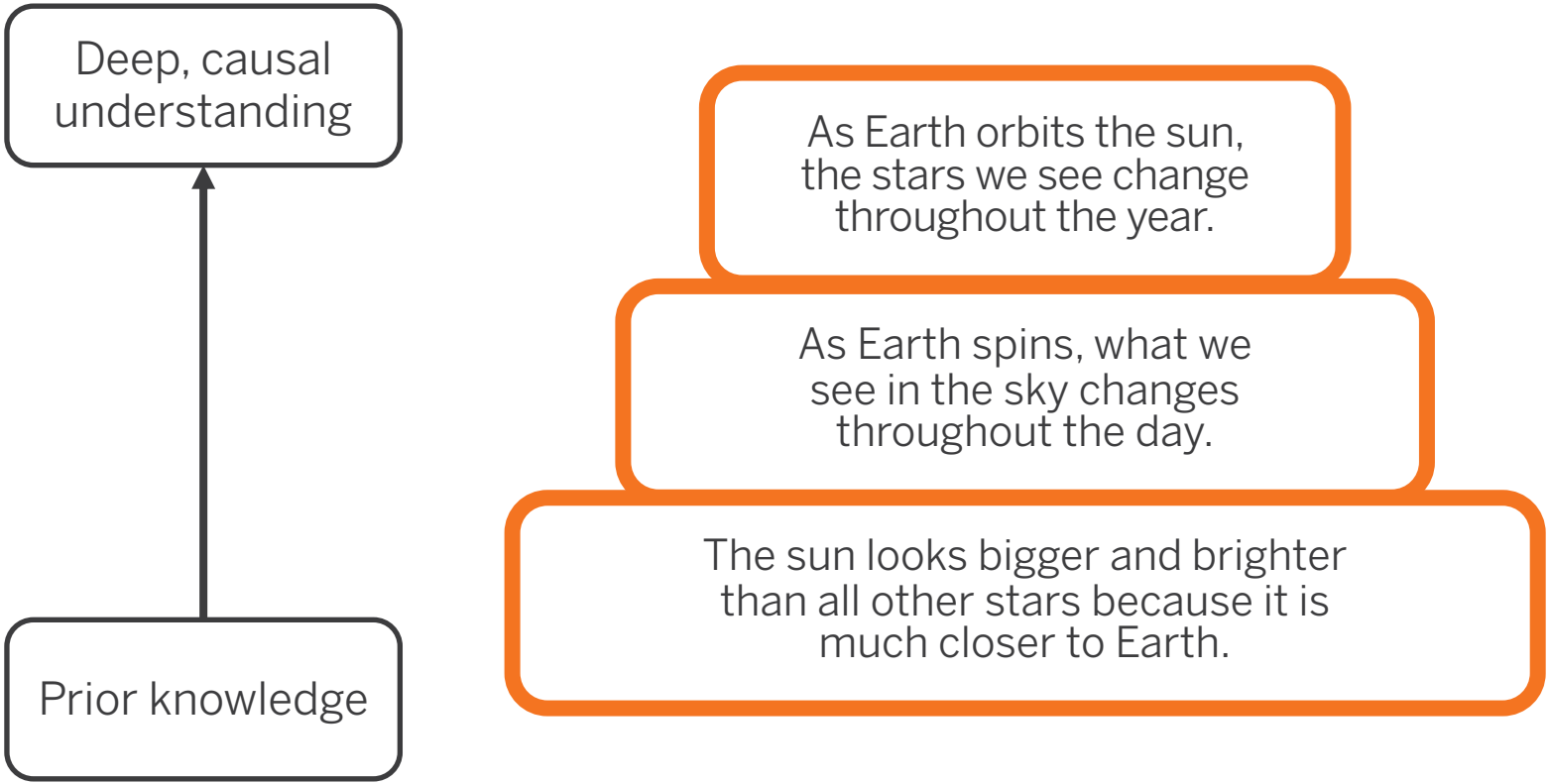
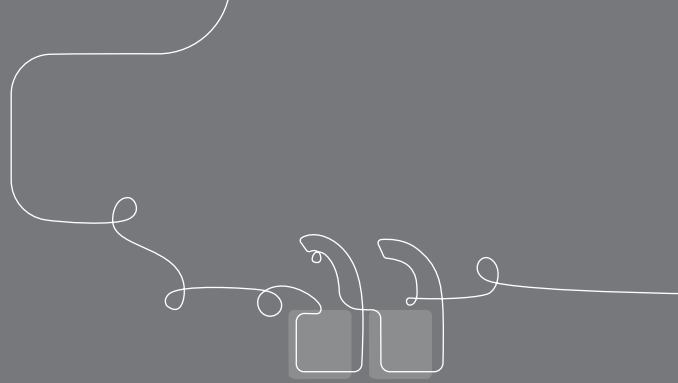


# Patterns of Earth and Sky Progress Build

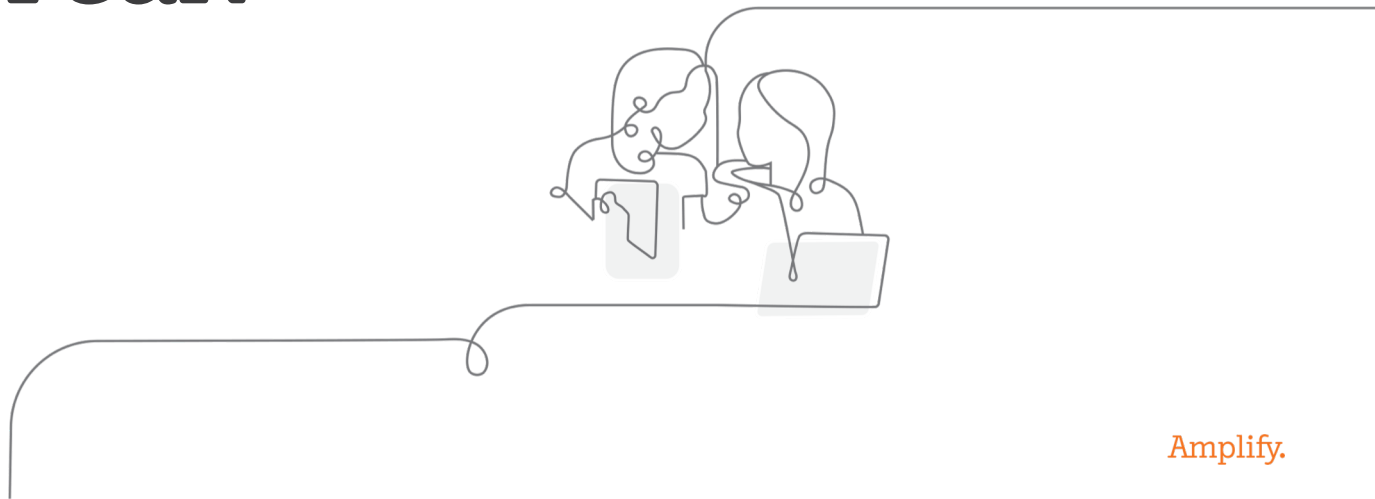


# Planning Ahead



What is one strategy that you will implement to engage ALL students in academic discourse?

# Lunch Break



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# Unit preview: Phenomenon and Progress Builds

## The purpose of this section is to help you:

- Understand the phenomena and focal Performance Expectations of the next Unit in the Amplify Science scope and sequence.

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# Connecting to unit phenomena

## The purpose of this section is to help you:

- Plan unit pacing with a focus on supporting key connections throughout the unit and promoting academic discourse.

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