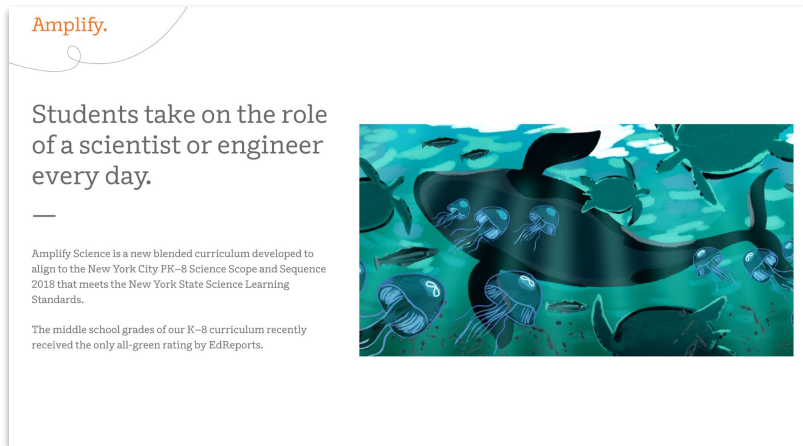


Welcome to Amplify Science!

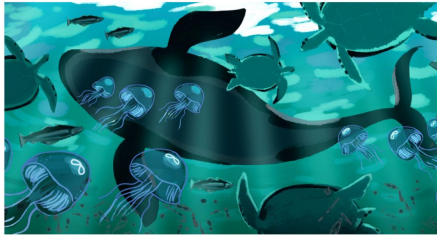
Do Now: Open auto-login site & explore as we wait to begin

Go to <https://amplify.com/amplify-science-nyc-doe-review/>



Amplify.

Students take on the role of a scientist or engineer every day.



Amplify Science is a new blended curriculum developed to align to the New York City PK–8 Science Scope and Sequence 2018 that meets the New York State Science Learning Standards.

The middle school grades of our K–8 curriculum recently received the only all-green rating by EdReports.



Begin your review

Begin your review

What sets Amplify Science apart?

The Amplify Science approach

Components overview

Review grades K–5

Review grades 6–8

Watch an overview

Ready to order?

Grades K–5

Grades 6–8

What sets Amplify Science apart?

- Aligned to the New York City PK–8 Science Scope and Sequence 2018, and meets New York State Science Learning Standards.

Click your grade band & then follow prompts

Amplify Science

New York City

Exploring the Amplify Science Curriculum

Grades 3-5

Part 3

Date xx

Presented by xx



Amplify's Purpose Statement

Dear teachers,

You do a job that is nearly impossible and **utterly essential**.

We are in your corner – extending your reach, saving you time, and enhancing your understanding of each student.

Thank you for working with us to craft rigorous and riveting learning experiences for your classroom.

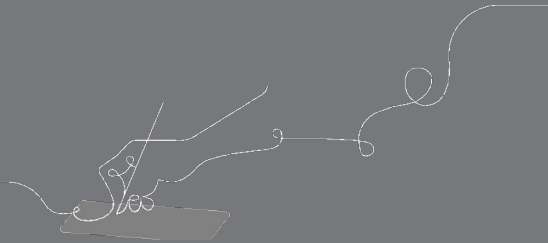
We share your goal of **inspiring all students to think deeply, creatively, and for themselves**.

Sincerely,
Amplify

Goals for Part 3 session

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

- ❑ Understand the Amplify Science assessment system.
- ❑ Plan how formative assessment data can be used to inform instruction.
- ❑ Begin planning for instruction.





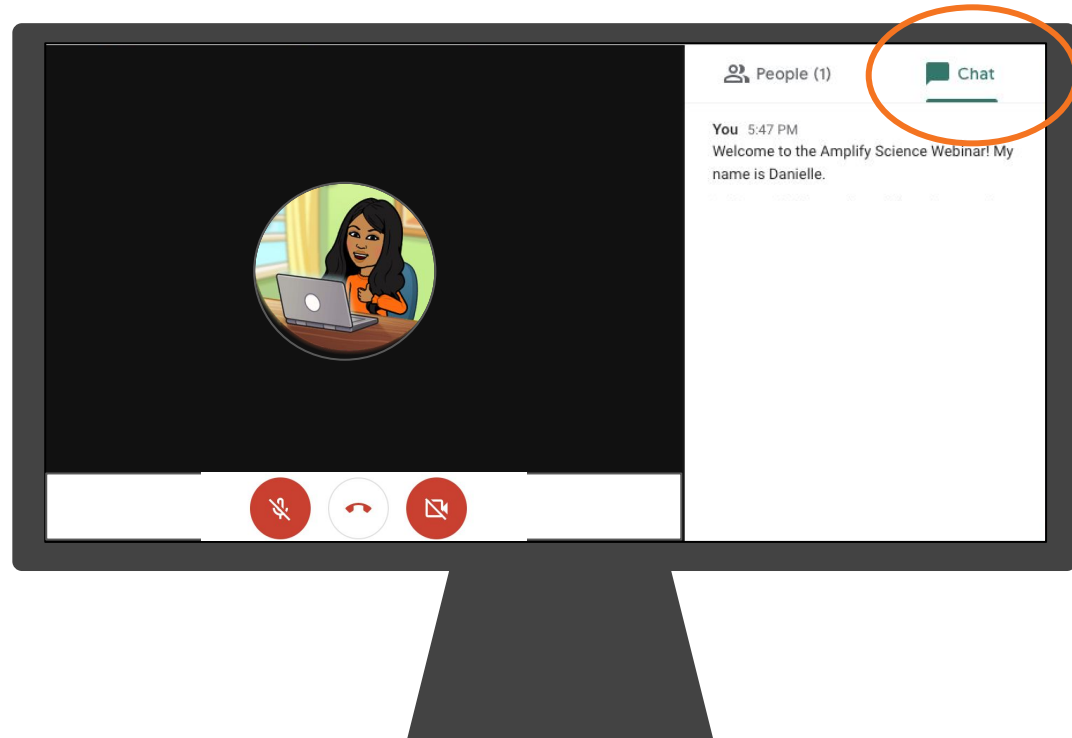
Plan for part 3

- **Framing the day**
 - Welcome
- **The Amplify Science Assessment System**
 - Formative assessment data tracking
- **Collaborative Planning**
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 - Share out
- **Closing**
 - Final Questions & Feedback

Ice Breaker!

How's everyone today?

- **Prompt 1:** Drop a word or phrase in the chat that describes how you're feeling today.
- **Prompt 2:** What can we do to energize & excite you about Amplify Science today?



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 part 3

- Framing the day
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Connecting 3-D learning to deeper learning

Amplify Science Assessment System

How do we know students are learning 3-dimensionally?

How do we know students are learning deeply?



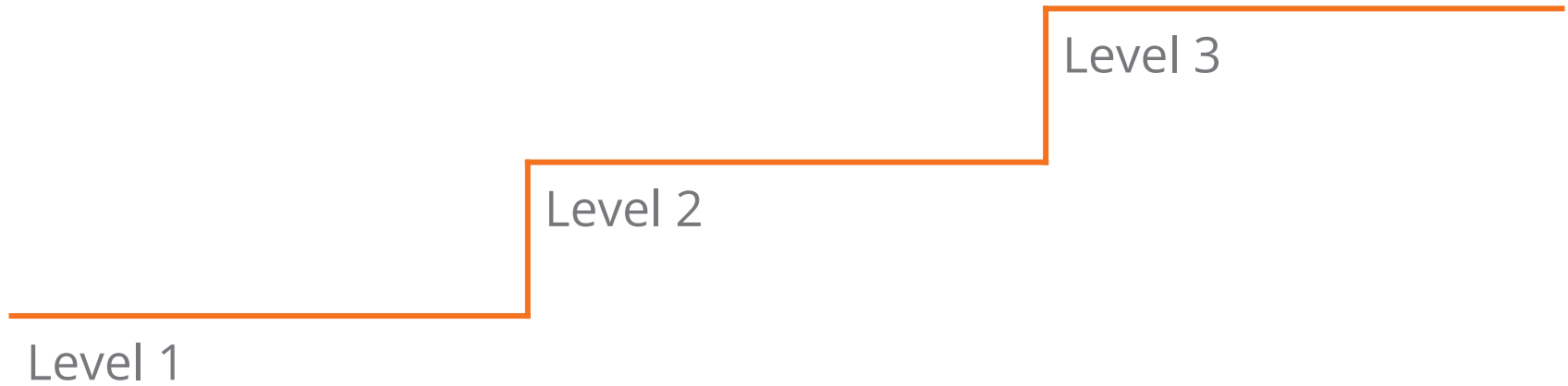
Assessment System

Opening reflection

How do you gather data about student learning in science?



Assessment System



Prior knowledge

Deep, causal
understanding

Pre- and End-of-Unit Assessments

Pre-Unit
Assessment

End-of-Unit
Assessment

Level 3

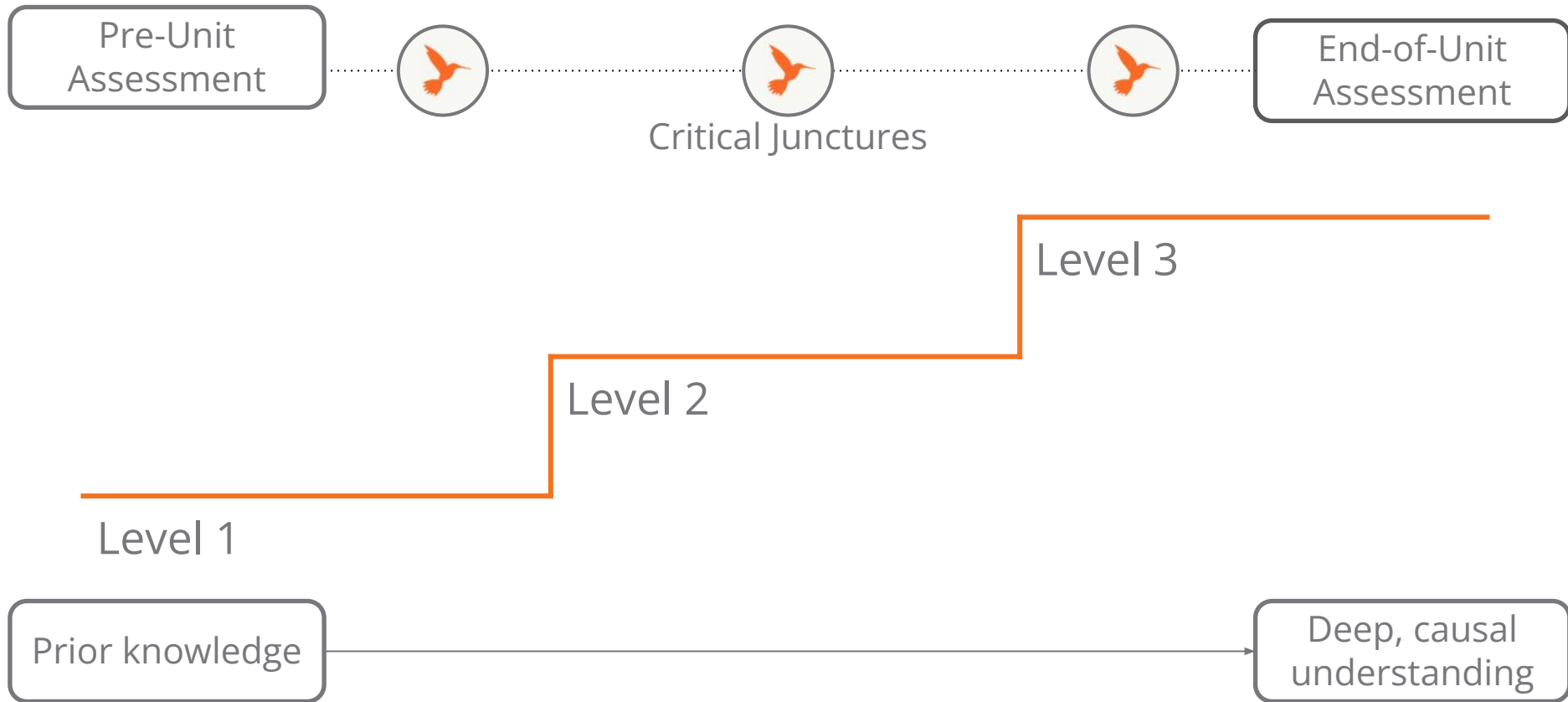
Level 2

Level 1

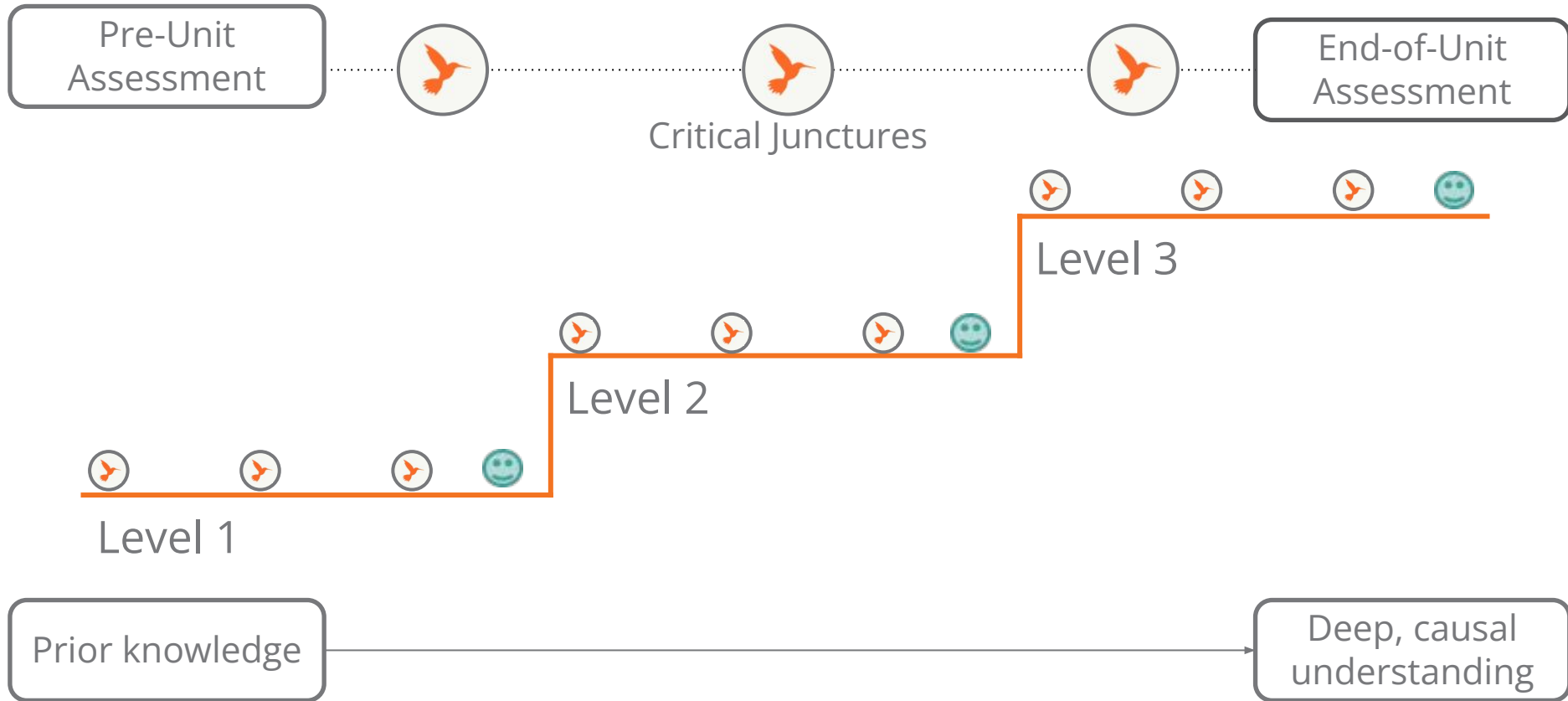
Prior knowledge

Deep, causal
understanding

Critical Juncture Assessments



On-the-Fly Assessments and Student Self-Assessments



Assessment System

Unit Guide resources

- **Assessment System:** Overview information and lists of all assessment opportunities
- **Embedded Formative Assessments:** Full-text of all On-the-Fly and Critical Juncture assessments
- **3-D Assessment Objectives:** Correlates unit assessments to NGSS Performance Expectations

Planning for the Unit

- Unit Overview
- Unit Map
- Progress Build
- Getting Ready to Teach
- Materials and Preparation
- Science Background
- Standards at a Glance

Teacher References

- Lesson Overview Compilation
- Standards and Goals
- 3-D Statements
- Assessment System
- Embedded Formative Assessments
- Books in This Unit
- Apps in This Unit
- Flextensions in This Unit

Printable Resources

- 3-D Assessment Objectives
- Coherence Flowcharts
- Copymaster Compilation
- Flextension Compilation
- Investigation Notebook
- Multi-Language Glossary
- NGSS Information for Parents and Guardians
- Print Materials (8.5" x 11")
- Print Materials (11" x 17")

Offline Preparation

Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access.

Offline Guide

Español

015269BF90C2782F REV.46678

Assessment System

Lesson-level resources

Full text of Critical Juncture and On-the-Fly Assessments (hummingbird icon):

- Instructional Guide
- Classroom Slides

Assessment Guides (in Digital Resources):

- Pre-Unit Assessment
- End-of-Unit Assessments

Hidden slide: Assessment System document

Planning for the Unit

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Offline Preparation

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Offline Guide

Assessment System 

Metabolism
Teacher References

- Rubrics:** Guidance is provided to gauge the level of student performance on the assessment task, with suggestions for student feedback and questioning strategies to advance learning, revise performance, or elicit and clarify student thinking. Rubrics are available in Digital Resources in the Lesson Brief for the lesson in which the task occurs.
- Possible student responses:** Possible student responses are provided to model how evidence of understanding, or partial understanding, may be demonstrated by the student for the specific task. Possible student responses are provided in the Possible Responses tab for the activity indicated in the table.
- Look for/Now what? notes:** Each On-the-Fly Assessment includes a two-part description of what evidence of understanding would look like for the task (Look for) and how instruction may be adjusted in response (Now what?). These are accessible by pressing the orange hummingbird icon in the activity in which they appear.

Assessment Opportunity	Next Generation Science Standards
<p>Lesson 1.1, Activities 1-3: Multiple-Choice and Written-Response Questions</p> <p>Assessment Type: Pre-Unit Assessment</p> <p>Evaluation Guidance:</p> <ul style="list-style-type: none">Auto-Scored Through Reporting (Selected-Response Items)Rubrics & Possible Student Responses for DCIs & CCCs (Constructed-Response Items)	<p>DCIs:</p> <ul style="list-style-type: none">LS1.A: Structure and FunctionLS1.C: Organization for Matter and Energy Flow in OrganismsPS3.D: Energy in Chemical Processes and Everyday Life <p>SEPs:</p> <ul style="list-style-type: none">Practice 4: Analyzing and Interpreting DataPractice 6: Constructing Explanations and Designing SolutionsPractice 8: Obtaining, Evaluating, and Communicating Information <p>CCCs:</p> <ul style="list-style-type: none">Systems and System Models
<p>Lesson 1.3, Activity 3: 3-D Performance Task: Modeling Molecules in a Healthy Cell</p> <p>Assessment Type: On-the-Fly Assessment; End-of-Chapter Modeling</p> <p>Evaluation Guidance:</p> <ul style="list-style-type: none">Look For/Now What? NotesPossible Student Responses	<p>DCIs:</p> <ul style="list-style-type: none">LS1.A: Structure and FunctionLS1.C: Organization for Matter and Energy Flow in OrganismsPS3.D: Energy in Chemical Processes and Everyday Life <p>SEPs:</p> <ul style="list-style-type: none">Practice 1: Asking Questions and Defining ProblemsPractice 2: Developing and Using ModelsPractice 8: Obtaining, Evaluating, and Communicating Information <p>CCCs:</p> <ul style="list-style-type: none">Scale, Proportion, and QuantitySystems and System Models

Hidden slide: Navigate to the Assessment

AmplifyScience > Metabolism > Chapter 1 > Lesson 1.3

Lesson Brief (7 Activities) < 1 WARM-UP Warm-Up 2 READING Reading "Molecules Cells Need" 3 MODELING TOOL Modeling Molecules in a Healthy Cell 4 SORTING TOOL Evaluating New Evidence About Elisa >

Modeling Molecules in a Healthy Cell

ASSIGN

Students use the *Metabolism* Modeling Tool to show their ideas about the molecules that can be found in a healthy cell.(5 min)

EMBEDDED FORMATIVE ASSESSMENT INSTRUCTIONAL GUIDE

Step-by-step Teacher Support Possible Responses My Notes

1. Set the purpose for using the Modeling Tool.

Before we can diagnose Elisa, we need to understand more about what's happening in a healthy body. We've learned that for a body to function properly, its cells need certain molecules. You'll use a new tool called the *Metabolism* Modeling Tool to make a model, or diagram, to show your ideas about which molecules are found in a healthy cell.

Scientists often use models to work out their ideas and share them with others. When you use the Modeling Tool you should think carefully and show your best ideas, but you don't have to worry about sharing a wrong idea. Even scientists have ideas that they are not sure about yet. You will become more sure of your ideas throughout the unit, and you will have a chance to make new models to show your new ideas.

2. Launch and project the Modeling Tool activity: 1.3 Molecules in a Cell and demonstrate its features, if needed. Point out that the instructions for the Modeling Tool activity are also on page 12 of the notebook.

Scroll for more

Hand In

AmplifyScience > Metabolism > Chapter 1 > Lesson 1.3

Lesson Brief (7 Activities) < 1 WARM-UP Warm-Up 2 READING Reading "Molecules Cells Need" 3 MODELING TOOL Modeling Molecules in a Healthy Cell 4 SORTING TOOL Evaluating New Evidence About Elisa >

Modeling Molecules in a Healthy Cell

ASSIGN

Students use the *Metabolism* Modeling Tool to show their ideas about the molecules that can be found in a healthy cell.(5 min)

EMBEDDED FORMATIVE ASSESSMENT INSTRUCTIONAL GUIDE

On-the-Fly Assessment 1: Reviewing Submitted Student Models

ON THE FLY ASSESSMENT

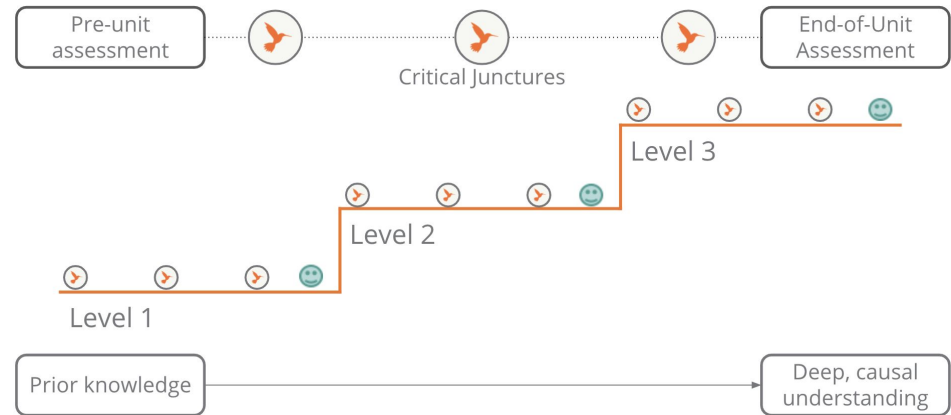
Assessment System

Exploration time

Open the Assessment System document in the Unit Guide for a list of all assessments.

Pick a few assessments and navigate to the lessons when they occur.

Read through the assessments to build your familiarity with the Assessment System.



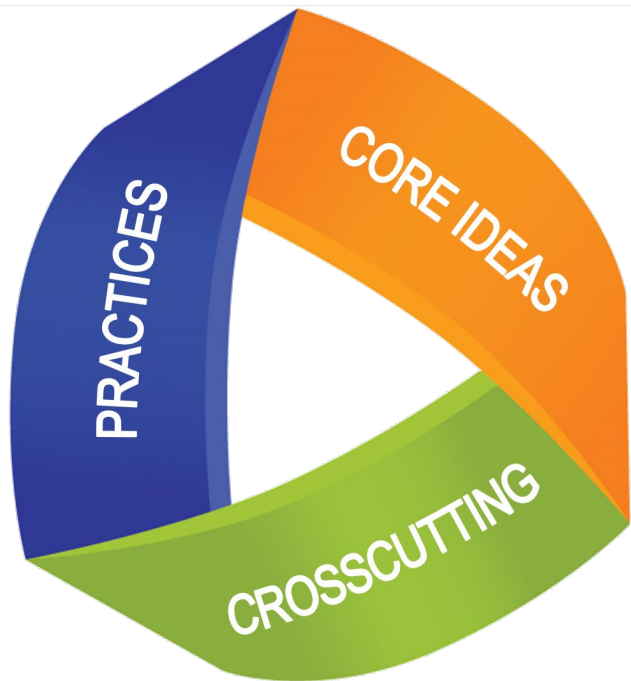
What is formative assessment?

Formative assessment is a cycle of eliciting, interpreting, and taking action on information about student learning.

Design Principles of Formative Assessment

- **Credible:** information from the assessment is trustworthy
- **Actionable:** information is at a level of specificity such that a teacher can use it to bolster instruction
- **Timely:** information comes at a time when a teacher is able to take action and when a student can productively leverage feedback

Assessment as a Three Dimensional System



Lesson 2.1, Activity 4:

Student Drawing and Discussion: The Function of Plant Parts

Assessment Type:

On-the-Fly Assessment

Evaluation Guidance:

- Look For/Now What? Notes

DCI:

- LS2.A: Interdependent Relationships in Ecosystems

SEPs:

- Practice 2: Developing and Using Models
- Practice 4: Analyzing and Interpreting Data
- Practice 7: Engaging in Argument from Evidence
- Practice 8: Obtaining, Evaluating, and Communicating Information

CCCs:

- Systems and System Models
- Structure and Function

Energy Conversions Progress Build

Level 1

Devices work by converting electrical energy to another form.

Level 2

Energy must be supplied from a source and converted or there is no electrical energy available for devices to convert.

Level 3

Electrical energy can be transferred by wires connecting the source converter to the device.

Pre-unit
assessment



Critical Junctures

End-of-Unit
Assessment

Situating an Assessment

Lesson 1.2 Purpose: The purpose of this lesson is to introduce students to the concept of systems and to prepare them to investigate the electrical system, its parts, and their functions.

Progress Build Level 1:

Devices work by converting electrical energy to another form.

Lesson 1.2 Overview: Activity 4

1: Reflecting on the Unit Problem (5 min.)

To prepare to begin their investigations, students reflect on the unit problem and their role as systems engineers.

2: Observing a Simple System (15 min.)

As a first step toward building an understanding of how electrical systems work, students are introduced to an example of a simple system—a cherry pitter. Students observe the cherry pitter system to identify the parts of the system and their functions.

3: Introduction to Synthesizing (15 min.)

The teacher introduces Systems, then introduces and models the reading strategy of synthesizing in order to prepare students to synthesize as they read the book with a partner.

4: Reading: Systems (25 min.) 

Partners read Systems and apply the synthesizing strategy to generate new ideas to help them answer the first Investigation Question: What is a system? Post-reading discussion provides students with an opportunity to hear the new ideas about systems that their classmates have generated. This activity also provides an On-the-Fly Assessment of students' developing ability to synthesize information as a reading strategy.

Lesson 1.2, Activity 4

On-the-Fly Assessment 1: Synthesizing Information

Look for: This lesson provides students' first opportunity to learn about and discuss how to synthesize information as a reading strategy. They will continue to develop facility with this strategy throughout the unit through repeated practice. As you circulate, make note of what students are connecting to the reading and what deeper understanding they come to as a result. Are they connecting together relevant pieces of information from different sources? Are they using these connections to help them better understand systems?



Now what? If students are having trouble getting started with synthesizing, or if they are connecting the reading to unrelated information, provide some additional models. You may wish to provide examples that combine information from the first section of *Systems* with information from other sources. Depending on how many students need this support, you could either coach a few students individually during the reading or you could work with a small group or the whole class. Be sure to remind students to keep in mind the goal of connecting pieces of information in order to come to a deeper understanding of the concept of systems.

Collecting Data

How do you typically collect and record student data?

What strategies have you successfully used for collecting data in a remote learning setting ?

Data Collection Tool Sample

Unit Name:
Lesson & Activity #:

Look for 1:
Look for 2:

Student Name	Look for 1	Look for 2	Notes

Model Analysis: 1.2 Activity 1

Analyzing student data: refer to the Look for section of the Lesson's assessment and refer to your observation notes.

Taking action based on student data: refer to the Now what section of the lesson's assessment and consider how you might adjust instruction in your classroom.

Which misconception?



Which students?

- Key Concept
- Practice
- Crosscutting Concept

Notes:

Students should be able to synthesize as a reading strategy

Tristian

Trent

Wanda

Zena

When?

- In the moment
- In upcoming activity
- Outside of lesson

Notes:

During the activity itself.

How?

- Keep an eye on certain students
- Provide additional instruction
- Revisit an activity

Notes:

Coach students listed as by providing models of connecting information from various sources to come to a deeper understanding of systems.

Planning for an Upcoming Assessment

1. Choose an upcoming assessment for your unit.

2. Plan using the template or your note catcher.

Unit: Lesson:			
Analyzing student data: refer to the Look for section of the Lesson ____ assessment. <i>(If using the @Home Units refer to the chapter assessment considerations).</i>		Taking action based on student data: refer to the Now what section of the ____ assessment and consider how you might adjust instruction in your classroom.	
How will I collect data?	Which misconception?	When?	How?
	<input type="checkbox"/> Key Concept <input type="checkbox"/> Practice <input type="checkbox"/> Crosscutting Concept Notes:	<input type="checkbox"/> In the moment <input type="checkbox"/> In upcoming activity <input type="checkbox"/> Outside of lesson Notes:	<input type="checkbox"/> Keep an eye on certain students <input type="checkbox"/> Provide additional instruction <input type="checkbox"/> Revisit an activity Notes:

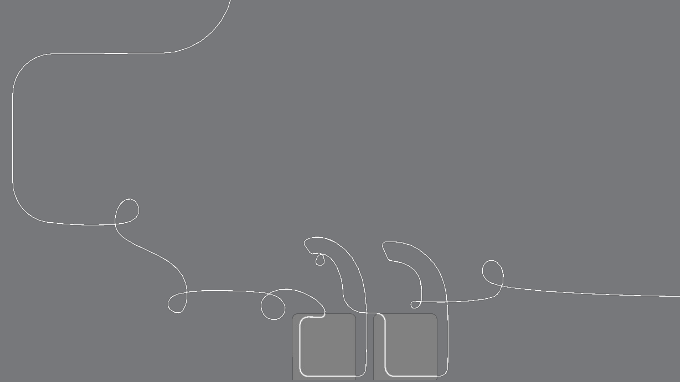
Assessment System

Key takeaways: On-the-Fly and Critical Juncture Assessments

- Gather data about conceptual understanding, 3-D learning, literacy skills, and collaboration
- Embedded into instruction
- “Look for” defines what’s being assessed
- “Now what?” suggestions for providing differentiated support



Questions?



Reflection

How do you plan to use the assessments in the Assessment System?

How can the Assessment System be a tool for deeper learning?



Synthesizing our reflections

The Assessment System provides insight into students' conceptual understanding and their work as scientists at just-right points throughout the unit.

Instructional suggestions help you provide support so students' learning can continue to deepen.

Tools for Deeper Learning

- *Progress Build*
- *3-D learning*
- *Coherence Flowchart*
- *Assessment System*

Break





Plan for part 3

- **Framing the day**
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 - Planning time
 - Share out
- **Closing**
 - Final Questions & Feedback

Unit, chapter, or lesson-level collaborative planning

Choose the option that best supports you in **planning to teach**:

1. Complete the **Unit Level** Planning & Internalization on **pages 35-38**.
2. Complete **Lesson** plans on **pages 39-41**.
3. Complete **Chapter** level analysis on **pages 42-46**.

Debrief & reflection

- Share one **key-takeaway** from your breakout room planning work-time.



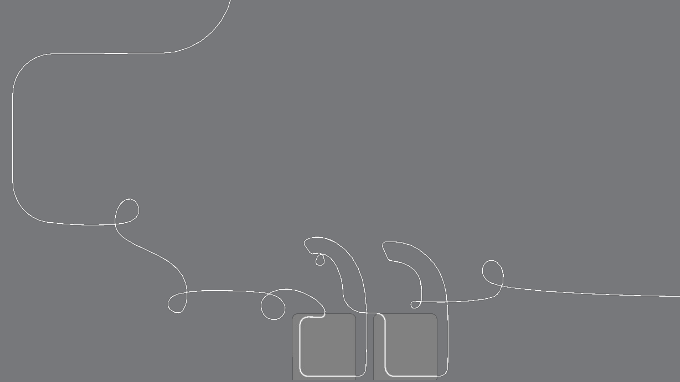


Plan for part 3

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Teaching science

“Science [is] both a body of knowledge and an evidence-based, model and theory building enterprise that continually extends, refines, and revises knowledge.”



Self-assessment

Reflect upon and celebrate your work today by completing the self-assessment.

Self-assessment: Reflect on your learning

Use the self-assessment statements below to reflect upon and evaluate your learning from today's workshop.

	Strongly Disagree			Strongly Agree	
	1	2	3	4	5
I know the phenomenon students will figure out in my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can navigate to and between lessons in the Amplify Science platform.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know how to access and edit Classroom Slides decks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can describe what learning is like for students in Amplify Science.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can explain how evidence sources work together in Chapter 1 of my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can describe how Amplify Science supports students' literacy development (including reading, writing, speaking, and listening).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6-8: I know how to access assessment resources including Classwork, Assign, and Reporting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand how to read a Coherence Flowchart.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know what types of resources I can find on the Program Hub.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm comfortable using the Unit Guide as a resource when looking for a specific piece of information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I've internalized my unit's Progress Build and I understand the science concepts my students will learn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can describe how learning is 3-dimensional in my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand how I can use the Coherence Flowchart as a planning tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can describe the purpose of different types of assessments in the Assessment System and supports available to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can visualize how teaching Amplify Science will lead my students to deeper learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know how to access support from Amplify if I need it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Closing reflection

Based on our work today, share:

Head: something you'll keep in mind

Heart: something you're feeling

Feet: something you're planning to do

New York City Resources Site

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



Amplify.

Amplify Science Resources for NYC (K-5)

Welcome! This site contains supporting resources designed for the New York City Department of Education Amplify Science adoption for grades K-5.

UPDATE: Summer 2020

Introduction

Getting started resources

Planning and implementation resources

Admin resources

Parent resources

COVID-19 Remote learning resources 2020

Professional learning resources

Questions

UPDATE: Summer 2020

Account Access: It's an exciting time for Amplify Science! We have access to the many updates and upgrades in our curriculum until late August/early September when we will update our rosters from STARS.

Any schools or teachers new to Amplify Science in 20/21 are encouraged to contact our Help Desk (1-800-823-1969) for access to your temporary login for summer planning.

Upcoming PL Webinars: Join us for our Summer 2020 Professional Learning opportunities in July for NEW teachers and administrators and August for RETURNING teachers and administrators. Links to register coming soon!

Site Resources

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

Additional resources and ongoing support

Customer Care

Seek information specific to enrollment and rosters, technical support, materials and kits, and teaching support, weekdays 7AM-10PM EST and weekends 10AM-6PM EST.



help@amplify.com



800-823-1969



Amplify Chat



Hidden slide: Amplify Chat



Overview

Materials & Preparation

Differentiation

Standards

Vocabulary

Differentiation

Embedded Supports for Diverse Learners

Gradual release of responsibility. In this lesson, students are introduced to the strategy of visualizing. Explicitly modeling how you evaluate you picture what is described in a book or imagine how something shown in a photograph or illustration would look as it moves prepares students to use this strategy more independently later in the unit. As the unit proceeds, students will practice visualizing with less teacher modeling and explicit support.

Shared Reading. Engaging in Shared Reading provides more support for reading and understanding at the beginning of the unit as students build their vocabulary and scientific knowledge. The book *Tortoise Parts* was designed to support a rich Shared Reading experience, during which you will guide students in reading, visualizing, and making sense of the text. *Tortoise Parts* has a repetitive sentence structure and text layout that may help students read some of the text along with you.

What Scientists Do chart. In this lesson, students are introduced to the What Scientists Do chart. By creating this chart with the class, you will model a way to organize information. The chart uses simple illustrations, which the teacher draws, to connect new concepts about the role of scientists to key vocabulary words (e.g., the word *observe* in this lesson). This chart records new information in an organized manner and provides an ongoing and accessible visual reference for students. The end result is a class reference tool that helps solidify new terms and related concepts in students' minds.

Multimodal instruction. Students gather evidence about how animals use body parts to meet their needs (particularly, their need for food) from text and photographs in a book, by eating a carrot, by observing their partner eat a carrot, and by discussing. Having experience with key ideas in many modalities gives students multiple opportunities to make sense of the concepts, as well as provides students who learn in different ways with different entry points.

Potential Challenges in This Lesson

Transfer of ideas from one context to another. In this lesson, students are asked to connect ideas about how a tortoise uses its

Digital Resources

Classroom Slides 1.2 | PowerPoint

Classroom Slides 1.2 | Google Slides

What Scientists Do Chart—Completed

BACK TO TOP

Español



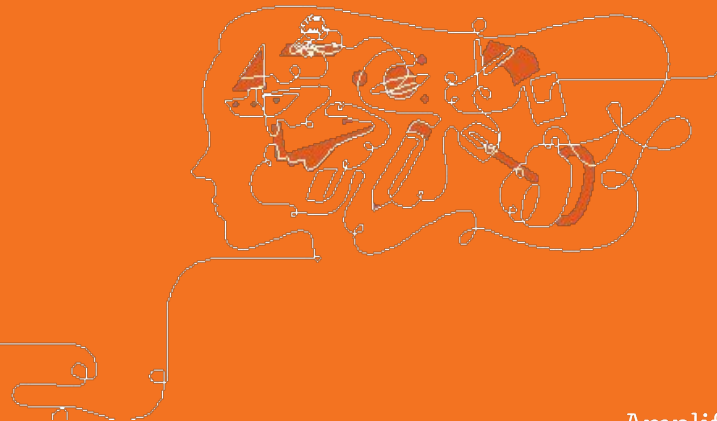


Final Questions?

Please provide us feedback!

URL: <https://www.surveymonkey.com/r/5DQW2T6>

Presenter name: [REDACTED]



Amplify.

Thank you & be well!

