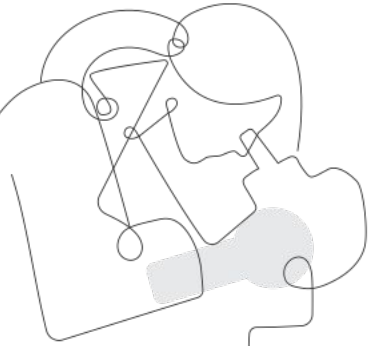
Do Now: *Use the link in the chat to add your best remote learning tips and tricks to the Jamboard.*

Amplify Science

Unit Internalization & Guided Planning

Deep-dive and strengthening workshop
Grade 6, Metabolism



LAUSD
10/10/2020
Presented by Your Name

In a new tab, please log in to your Amplify Science account through Schoology.

Norms: Establishing a Culture of Learners

- Please keep your camera on, if possible.
- 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

- Be an active participant - chat, ask questions, discuss, share!

Workshop goals

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

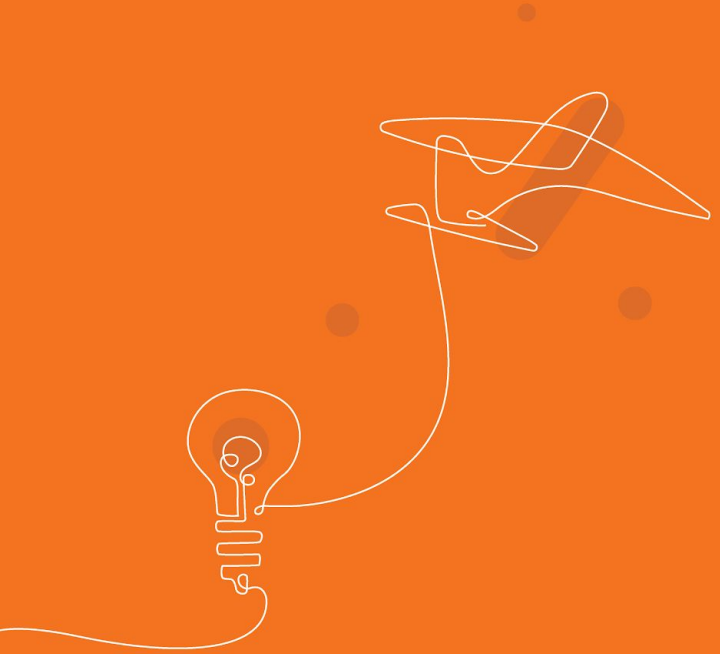
- Internalize your upcoming unit.
- Plan for collecting **evidence of student learning** in order to make instructional decisions to **support diverse learner needs**.
- Gather resources to develop a multi-day plan for implementing Amplify Science within your class schedule and instructional format.

Plan for the day

- Framing the day
  - Amplify Science Refresher
  - Instructional Materials
- Unit Internalization
- Planning to teach
  - Collecting evidence of student learning to meet diverse learner needs
- Reflection and closing

Plan for the day

- **Framing the day**
  - **Amplify Science Refresher**
  - **Instructional Materials**
- Unit Internalization
- Planning to teach
  - Collecting evidence of student learning to meet diverse learner needs
- Reflection and closing



Amplify Science Refresher

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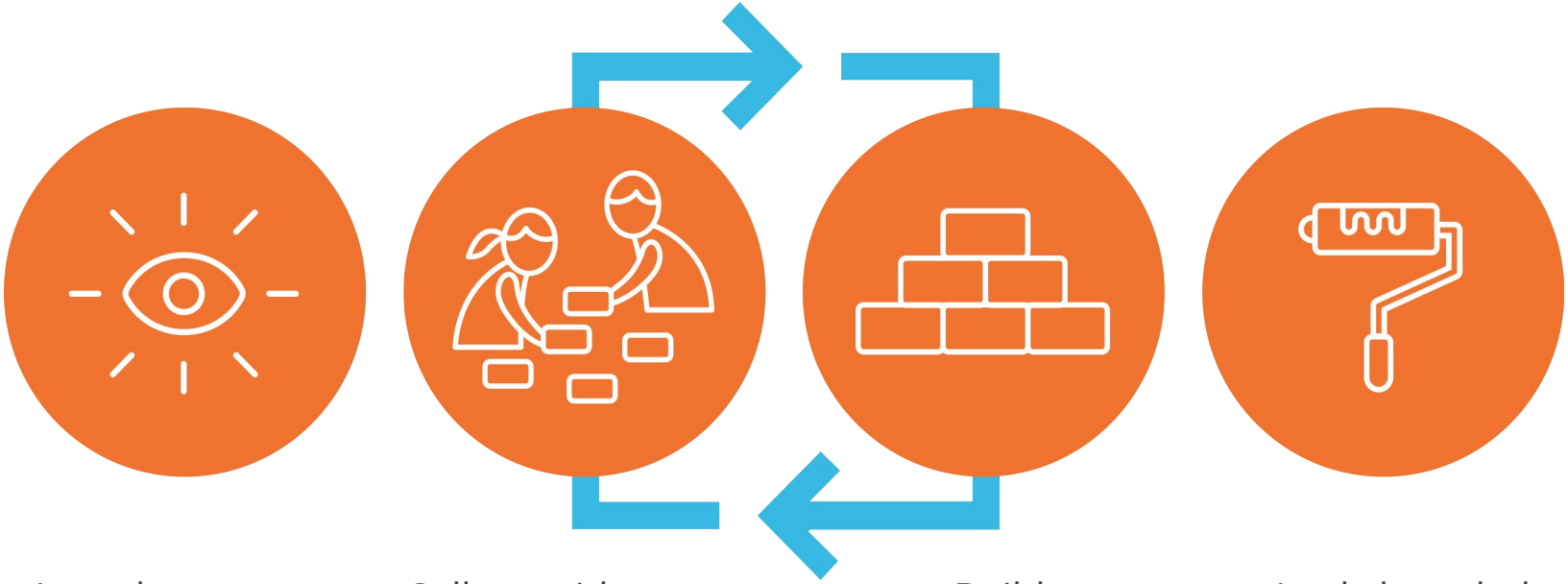
Amplify Science Instructional Approach



Introduce a phenomenon and a related problem

Collect evidence from multiple sources

Build increasingly complex explanations

Apply knowledge to solve a different problem

Middle school course curriculum structure

Integrated model*

Grade 6	Grade 7	Grade 8
Launch: Microbiome	Launch: Geology on Mars	Launch: Harnessing Human Energy
Metabolism	Plate Motion	Force and Motion
Engineering Internship: Metabolism	Engineering Internship: Plate Motion	Engineering Internship: Force and Motion
Traits and Reproduction	Rock Transformations	Magnetic Fields
Thermal Energy	Phase Change	Light Waves
Ocean, Atmosphere, and Climate	Engineering Internship: Phase Change	Earth, Moon, and Sun
Weather Patterns	Chemical Reactions	Natural Selection
Earth's Changing Climate	Populations and Resources	Engineering Internship: Natural Selection
Engineering Internship: Earth's Changing Climate	Matter and Energy in Ecosystems	Evolutionary History

AmplifyScience

authored by THE LAWRENCE HALL OF SCIENCE UNIVERSITY OF CALIFORNIA, BERKELEY

Launch units

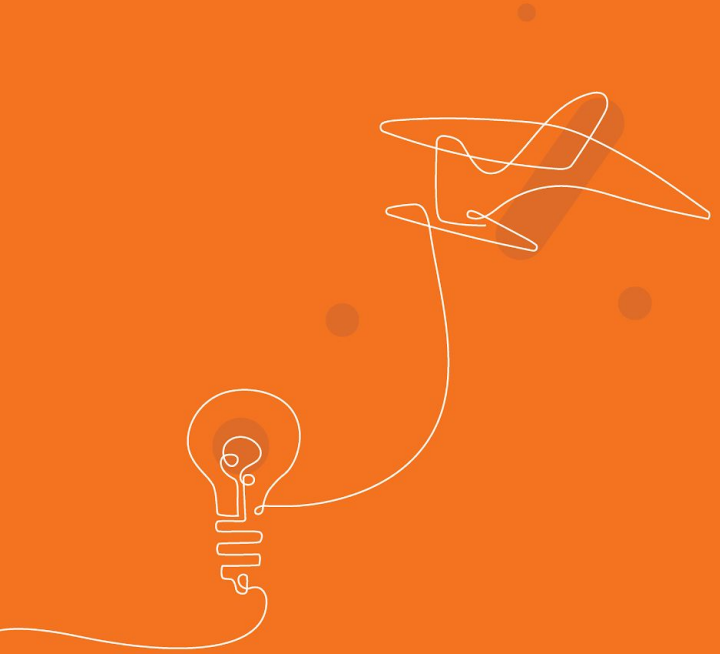
- First unit
- 11 lessons

Core units

- Majority of units
- 19 lessons

Engineering Internships

- Two per year
- 10 lessons



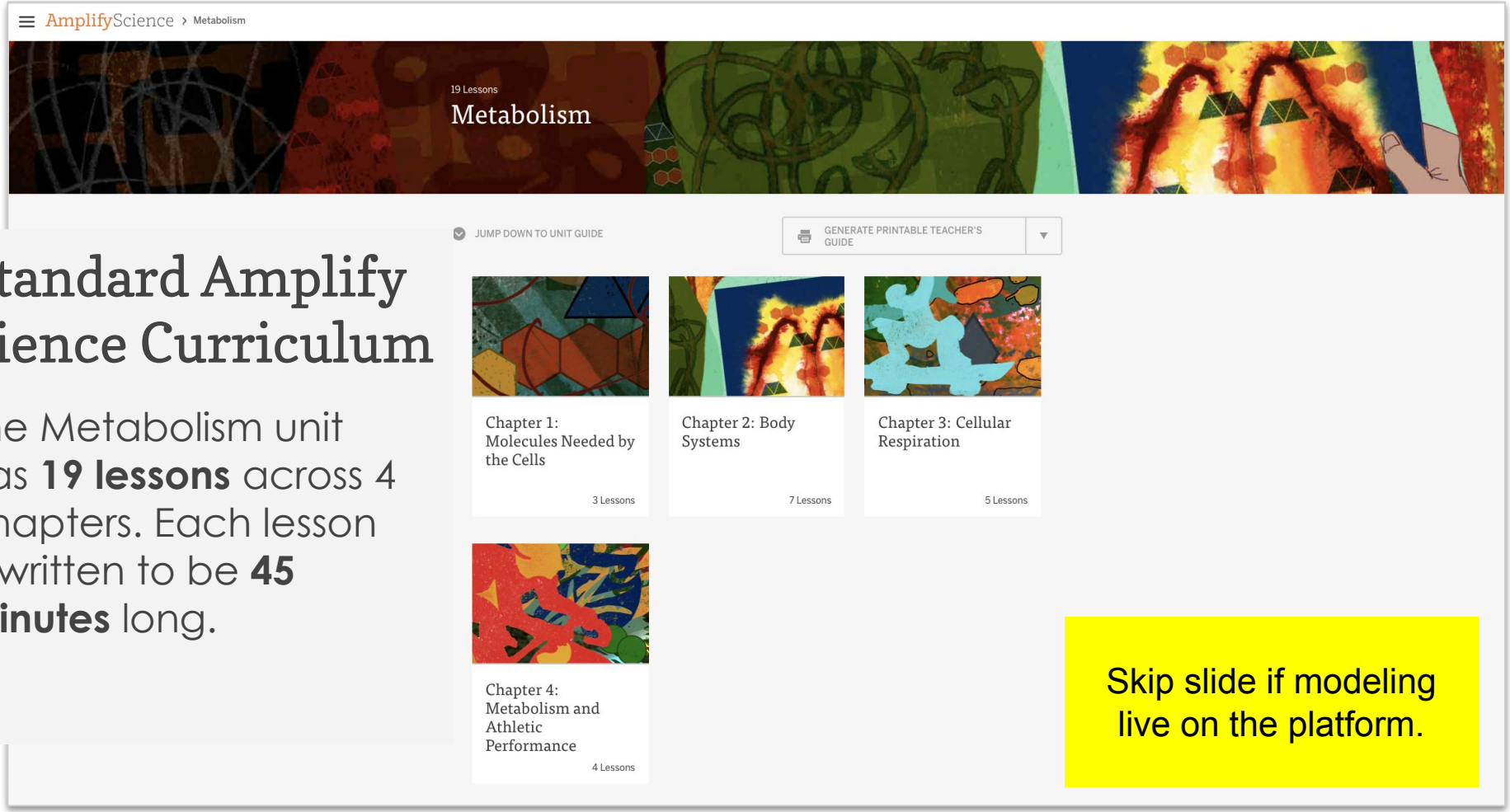
Instructional Materials

Amplify.

Standard Amplify Science Curriculum

Standard Amplify Science Curriculum

The Metabolism unit has **19 lessons** across 4 chapters. Each lesson is written to be **45 minutes** long.

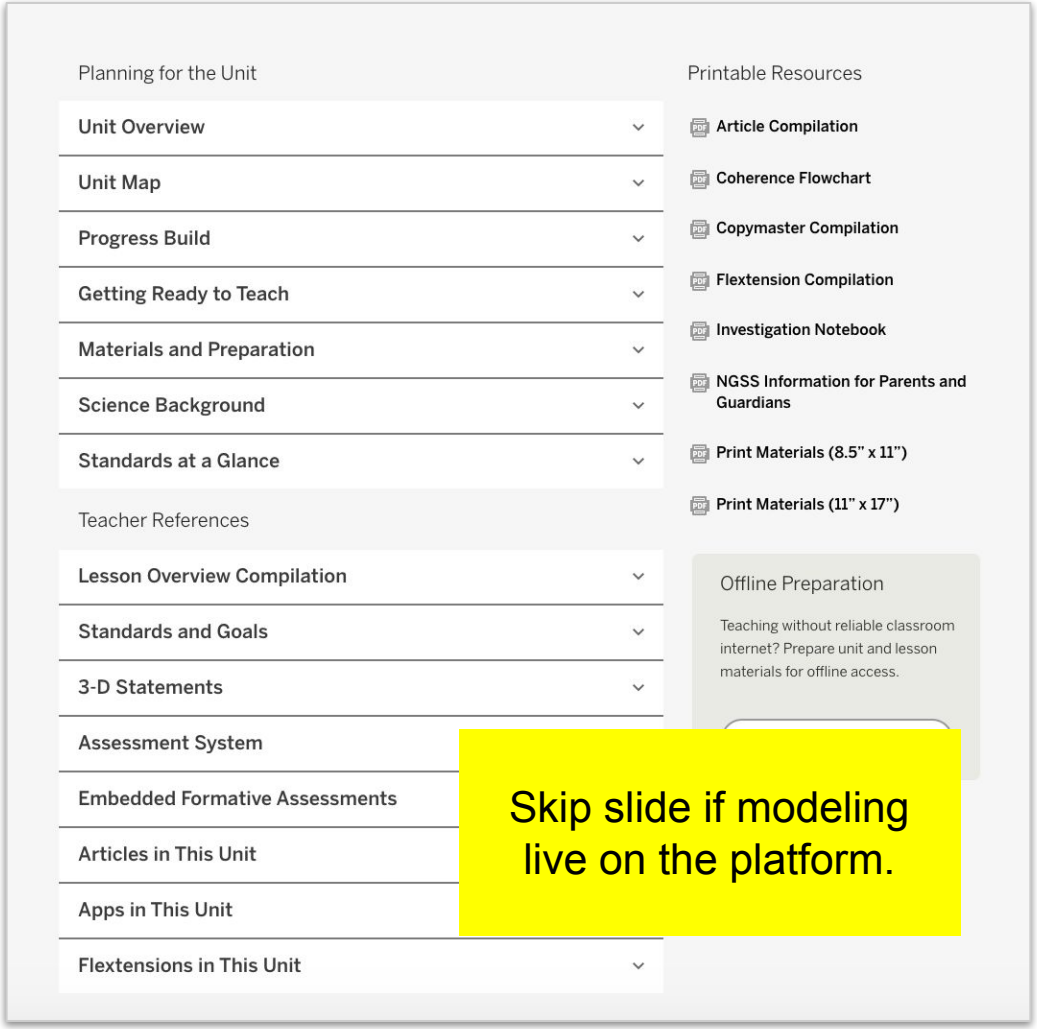


Skip slide if modeling live on the platform.

Standard Amplify Science Curriculum

On the standard Amplify Science platform you will find all of your key documents for planning for the unit.

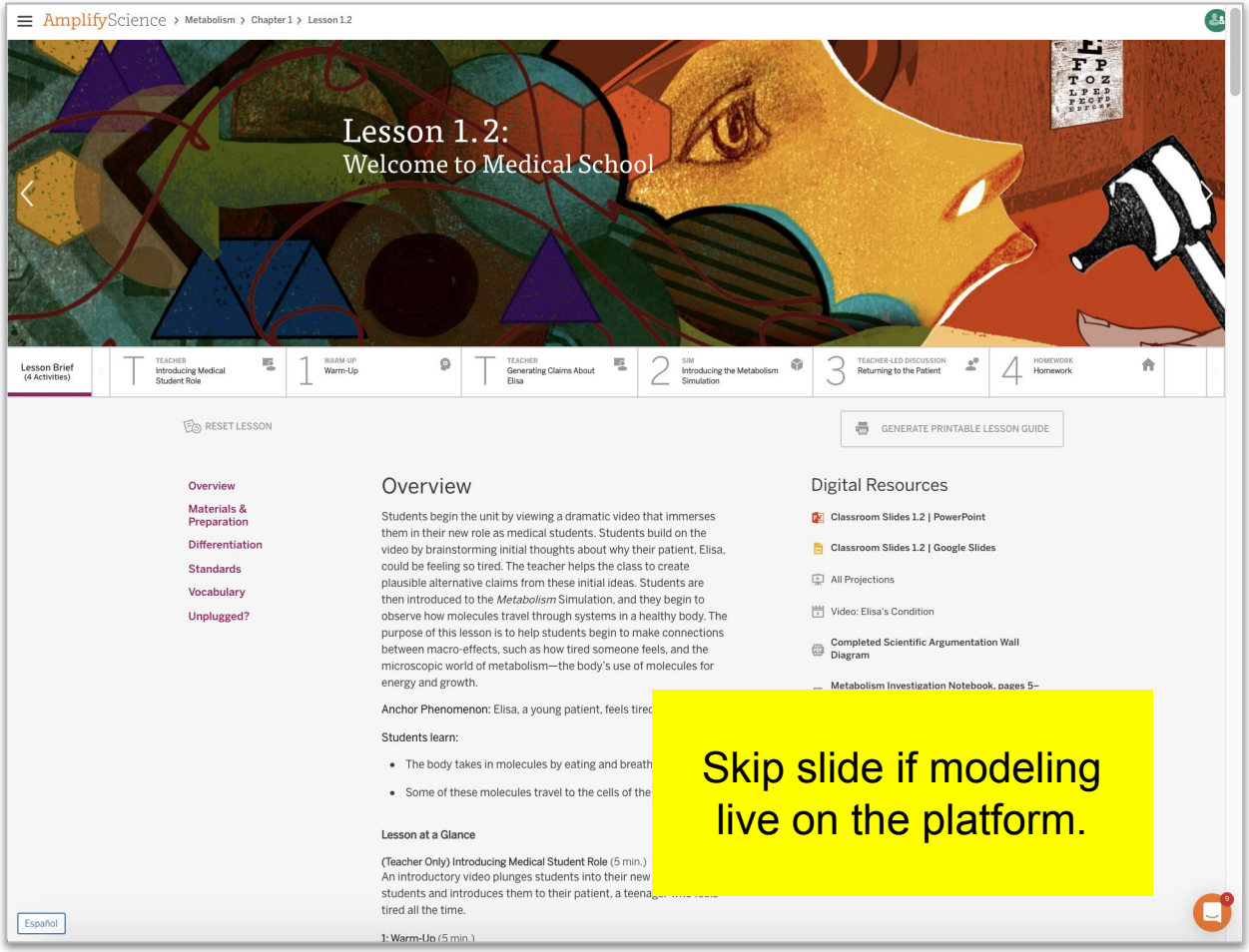
We will be using many of these in today's workshop.



Standard Amplify Science Curriculum

On the standard Amplify Science platform you will find key lesson level information.

We will be navigating to lessons during today's workshop in order to better plan for collecting evidence of student learning in order to plan to meet the needs of diverse learners.



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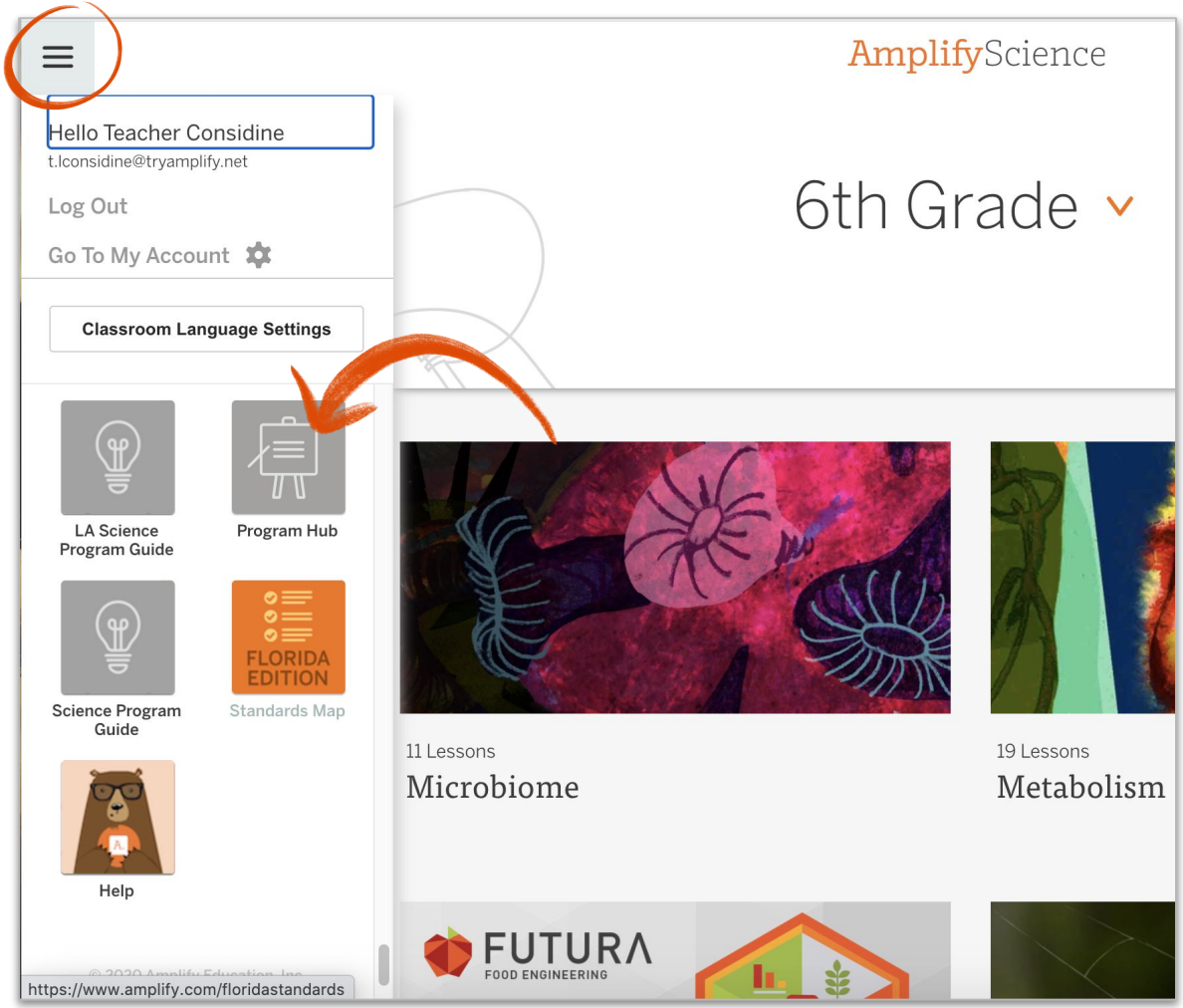
Amplify Science @Home Curriculum

Amplify Science @Home Curriculum

In addition to the standard Amplify Science curriculum, you also have access to Amplify Science @Home Curriculum on the Science Program Hub.



AmplifyScience@Home

Two different options:

@Home Units

- Packet or slide deck versions of Amplify Science units condensed by about 50%

@Home Videos

- Video playlists of Amplify Science lessons, taught by real Amplify Science teachers

Amplify Science @Home Curriculum

You have access to the Metabolism @Home Unit.

The Metabolism @Home Unit has **14 lessons.** Each lesson is written to be **30 minutes** long.

Metabolism@Home Unit resources

- Teacher Overview (PDF, Google) and Lesson Index
- Family Overview (PDF, Google) *To come: Spanish versions of this and all student materials*
- @Home Slides compilation (PDF, Google)
- @Home Packet compilation (PDF, Google)
- @Home Student Sheets Compilation (PDF, Google) *Note: Either Students Sheets or student access to their Amplify account is required when using @Home Slides.*
- Individual @Home Lesson materials (see table below)

Paper option

Digital option

	Print-based option	Digital option
Lesson 1	Packet (PDF, Google) – Spanish to come	Slides (PDF, Google) + Student Sheets (Google) – Spanish to come
Lesson 2	Packet (PDF, Google) – Spanish to come	Slides (PDF, Google) + Student Sheets (Google) – Spanish to come
Lesson 3	Packet (PDF, Google) – Spanish to come	Slides (PDF, Google) + Student Sheets (Google) – Spanish to come
Lesson 4	Packet (PDF, Google) – Spanish to come	Slides (PDF, Google) + Student Sheets (Google) – Spanish to come
Lesson 5	Packet (PDF, Google) – Spanish to come	Slides (PDF, Google) + Student Sheets (Google) – Spanish to come

Amplify Science @Home Curriculum

You have access to the Metabolism @Home Videos.

There are 16 @Home Videos for the Metabolism unit. This covers all lessons expect for the assessment lessons (1.1, 2.5, and 4.4). The video playlists on YouTube teach the standard Amplify Science Lessons.

Metabolism@Home Video playlists

Note: Assessment lessons are not included. Spanish videos to come.

Instructions:

- The @Home Videos are separate from the @Home Units. The lessons listed below correspond with the lessons in the full version of Amplify Science. Each lesson is linked to a playlist of recorded versions of the activities that make up that lesson, which you can share with your students

Chapter 1

- Lesson 1.2
- Lesson 1.3

Chapter 2

- Lesson 2.1
- Lesson 2.2
- Lesson 2.3
- Lesson 2.4
- Lesson 2.6
- Lesson 2.7

Chapter 3

- Lesson 3.1
- Lesson 3.2
- Lesson 3.3
- Lesson 3.4
- Lesson 3.5

Chapter 4

- Lesson 4.1
- Lesson 4.2
- Lesson 4.3

Metabolism Chapter 1 Lesson 1.2

7 videos • 1,074 views • Last updated on Aug 6, 2020

Unlisted

Amplify

SUBSCRIBE

1 Metabolism Chapter 1 Lesson 1.2 Activity 1 — Amplify — 5:36

2 Metabolism Chapter 1 Lesson 1.2 Activity 2 Part A — Amplify — 2:45

3 Metabolism Chapter 1 Lesson 1.2 Activity 2 Part B — Amplify — 2:56

4 Metabolism Chapter 1 Lesson 1.2 Activity 2 Part C — Amplify — 3:07

5 Metabolism Chapter 1 Lesson 1.2 Activity 3 — Amplify — 2:44

6 Metabolism Chapter 1 Lesson 1.2 Activity 4 Part A — Amplify — 3:36

7 Metabolism Chapter 1 Lesson 1.2 Activity 4 Part B — Amplify — 3:56

Resource Poll

Which of these resources have you been using?

- ❑ Standard Amplify Science Curriculum
- ❑ @Home Units
- ❑ @Home Videos

Questions?

Plan for the day

- Framing the day
  - Amplify Science Refresher
  - Instructional Materials
- **Unit Internalization**
- Planning to teach
  - Collecting evidence of student learning to meet diverse learner needs
- Reflection and closing

Unit Map

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
- Articles in This Unit
- Apps in This Unit
- Flextensions in This Unit

Printable Resources

- Article Compilation
- Flextension Compilation
- Investigation Notebook
- 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

Metabolism
Planning for the Unit

Unit Map

Unit Map

What is causing Elisa, a young patient, to feel tired all the time?

Through inhabiting the role of medical students in a hospital, students are able to draw the connections between the large-scale, macro-level experiences of the body and the micro-level processes that make the body function as they first diagnose a patient and then analyze the metabolism of world-class athletes. They uncover how body systems work together to bring molecules from food and air to the trillions of cells in the human body.

Chapter 1: Why does Elisa feel tired all the time?

Students figure out: Elisa feels tired because her cells aren't getting the molecules they need from food and air, which are necessary for her cells to function, grow, and repair.

How they figure it out: They make observations in the Simulation and read a short article to discover which molecules are taken in by the cells.

Chapter 2: What is happening in Elisa's body that could be preventing molecules from getting to her cells?

Students figure out: Elisa's cells are getting enough oxygen and amino acids, but not enough glucose. Her digestive system should break down starch molecules into glucose molecules, which are small enough to get into cells, and her circulatory system should deliver the glucose to cells. Students diagnose Elisa with diabetes.

How they figure it out: They explore several medical conditions with the Sim and through text. They conduct a hands-on investigation and participate in a Classroom Body Systems Model. They explain how diabetes affects Elisa's body systems and the molecules that get to her cells.

Chapter 3: How do molecules in the cells of the body release energy?

Students figure out: Elisa feels tired because her cells need both glucose and oxygen to release energy, in a process called cellular respiration.

How they figure it out: They explore the effects of activity on their own bodies, observe a chemical reaction that represents a model of cellular respiration, read an article, and conduct additional investigations in the Simulation.

Chapter 4: Students apply what they learn to a new question—How did the athlete increase his cellular respiration and improve his performance?

Students consider cellular respiration in the context of high-performance athletes, and read an article about a controversial practice called blood doping, which is used to enhance athletic performance. Jordan Jones finished 35th in a competitive bike race last year and 1st in a similar race this year. Was he blood doping? Students consider alternative claims and review the available evidence to make an argument. They engage in oral argumentation in a student-led discourse routine called a Science Seminar and then individually write their final arguments.

Page 2

Amplify.

Unit Guide Resources

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
- Articles in This Unit
- Apps in This Unit
- Flextensions in This Unit

Printable Resources

- Article Compilation
- Coherence Flowchart
- Copymaster Compilation
- Flextension Compilation
- Investigation Notebook
- 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

Unit Guide resources

Once a unit is selected, select **JUMP DOWN TO UNIT GUIDE** in order to access all unit-level resources in an Amplify Science unit.

Planning for the unit	
Unit Overview	Describes what's in each unit, the rationale, and how students learn across chapters
Unit Map	Provides an overview of what students figure out in each chapter, and how they figure it out
Progress Build	Explains the learning progression of ideas students figure out in the unit
Getting Ready to Teach	Provides tips for effectively preparing to teach and teaching the unit in your classroom
Materials and Preparation	Lists materials included in the unit's kit, items to be provided by the teacher, and briefly outlines preparation requirements for each lesson
Science Background	Adult-level primer on the science content students figure out in the unit
Standards at a Glance	Lists Next Generation Science Standards (NGSS) (Performance Expectations, Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts), Common Core State Standards for English Language Arts, and Common Core State Standards for Mathematics
Teacher references	
Lesson Overview Compilation	Lesson Overview of each lesson in the unit, including lesson summary, activity purposes, and timing
Standards and Goals	Lists NGSS (Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts) and CCSS (English Language Arts and Mathematics) in the unit, explains how the standards are reached
3-D Statements	Describes 3-D learning across the unit, chapters, and in individual lessons
Assessment System	Describes components of the Amplify Science Assessment System, identifies each 3-D assessment opportunity in the unit
Embedded Formative Assessments	Includes full text of formative assessments in the unit
Books in This Unit	Summarizes each unit text and explains how the text supports instruction
Apps in This Unit	Outlines functionality of digital tools and how students use them (in grades 2-5)
Printable resources	
Copymaster Compilation	Compilation of all copymasters for the teacher to print and copy throughout the unit
Investigation Notebook	Digital version of the Investigation Notebook, for copying and projecting
Multi-Language Glossary	Glossary of unit vocabulary in multiple languages
Print Materials (8.5" x 11")	Digital compilation of printed cards (i.e. vocabulary cards, student card sets) provided in the kit
Print Materials (11" x 17")	Digital compilation of printed Unit Question, Chapter Questions, and Key Concepts provided in the kit

Guided Unit Internalization

Part 1: Unit-level internalization

Unit title: Metabolism

What is the phenomenon students are investigating in your unit?

What is causing Elisa, a young patient in the hospital, to feel tired all of the time?

Unit Question:
How do the trillions of cells in the human body get what they need to function, and what do the cells do with the things they absorb?

Student role:
Medical students

By the end of the unit, students figure out ...

Cells need oxygen, glucose and amino acids from outside the body. The digestive system creates glucose and amino acids while the respiratory system brings in oxygen which is carried through the body by the circulatory system. When glucose and oxygen are both in a cell, they undergo a chemical reaction, called cellular respiration which releases energy. Cells use this energy to function which allows the entire body to function.

What science ideas do students need to figure out in order to explain the phenomenon?

Students need to be able to draw connections between the large-scale, macro-level experiences of the body and the micro-level processes that make the body function. They need to understand how the body systems work together to bring molecules from food and air to the trillions of cells in the human body.

Questions?

Plan for the day

- Framing the day
  - Amplify Science Refresher
  - Instructional Materials
- Unit Internalization
- **Planning to teach**
  - **Collecting evidence of student learning to meet diverse learner needs**
- Reflection and closing

Unit Map

What is causing Elisa, a young patient, to feel tired all the time?

Through inhabiting the role of medical students in a hospital, students are able to draw the connections between the large-scale, macro-level experiences of the body and the micro-level processes that make the body function as they first diagnose a patient and then analyze the metabolism of world-class athletes. They uncover how body systems work together to bring molecules from food and air to the trillions of cells in the human body.

Chapter 1: Why does Elisa feel tired all the time?

Students figure out: Elisa feels tired because her cells aren't getting the molecules they need from food and air, which are necessary for her cells to function, grow, and repair.

How they figure it out: They make observations in the Simulation and read a short article to discover which molecules are taken in by the cells.

Chapter 1: Molecules Needed by the Cells

JUMP DOWN TO CHAPTER OVERVIEW

Lesson 1.1:
Pre-Unit Assessment

SETTINGS 1

Lesson 1.2:
Welcome to Medical School

Lesson 1.3:
Evaluating Initial Claims About Elisa

Key Activities

- **Introducing the *Metabolism* Unit:** Students are introduced to the unit problem and their role as medical students. They consider their initial ideas about why their patient Elisa is feeling tired all the time, and are introduced to the claims they will be investigating.
- **Do:** Students are introduced to the *Metabolism* Simulation (Sim) and observe what happens to molecules the body is taking in. Students using @Home Slides use the Sim, while students using @Home packets observe a video of a Sim investigation.
- **Reflect:** Students consider whether they have any new ideas about the claims.

Ideas for synchronous or in-person instruction

Before meeting, have students watch the introductory video. While meeting, have students share their initial ideas about Elisa's condition, then introduce the Sim. You can either have students complete the Sim investigation individually, then share observations as a class, or have students observe and record as you show the Sim. If you are meeting in person with students who don't have digital access at home, take the opportunity to have them complete the Sim investigation in class (as in *Metabolism*, Lesson 1.2, Activity 2).

Metabolism

@Home Lesson 1

AmplifyScience

Today, we will begin a new unit called ***Metabolism*.**

We will begin by watching a video that introduces you to the problem you will solve in this unit and your new role as **medical students.**

tinyurl.com/AMPMET-01

Think about this question.

Why do you think your new patient, Elisa, is feeling tired all the time?

Claims

Elisa is feeling tired because she:

- is not getting enough sleep.
- is not eating enough food or not eating the right foods.
- has a medical condition.

You probably thought of some of these ideas.

These are possible **claims.** As medical students, you will investigate these claims to try to explain why Elisa's body isn't functioning properly.

To figure out why Elisa feels so tired, we will first think about healthy bodies.

What are some things you know the human body needs to function?

Key Activities

- **Introducing the *Metabolism* Unit:** Students are introduced to the unit problem and their role as medical students. They consider their initial ideas about why their patient Elisa is feeling tired all the time, and are introduced to the claims they will be investigating.
- **Do:** Students are introduced to the *Metabolism* Simulation (Sim) and observe what happens to molecules the body is taking in. Students using @Home Slides use the Sim, while students using @Home packets observe a video of a Sim investigation.
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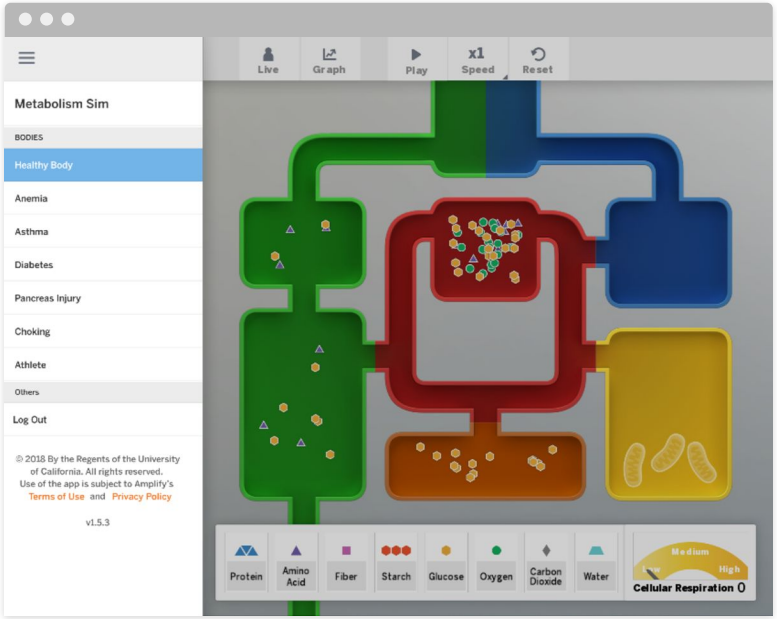
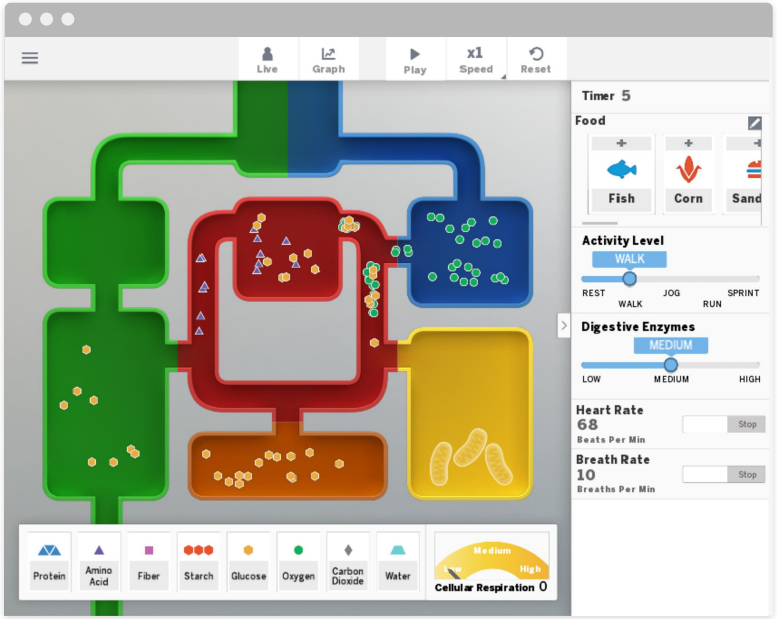


A lot of things that happen in the human body are hidden or too small to directly observe. We will use the *Metabolism* Simulation to help us learn more about how human body systems function.



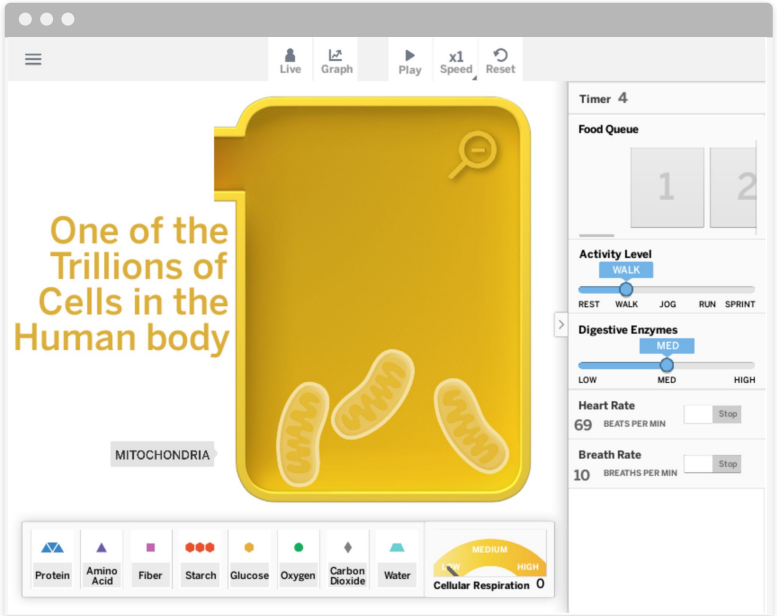
The *Metabolism* Sim is a scientific model that simulates many things that happen inside the human body.

Next you will watch a video about how to use the Sim.

You can also stop the body's **heart**

tinyurl.com/AMPMET-02

Check with your teacher about how you will access Sims and other digital tools in this @Home Unit.

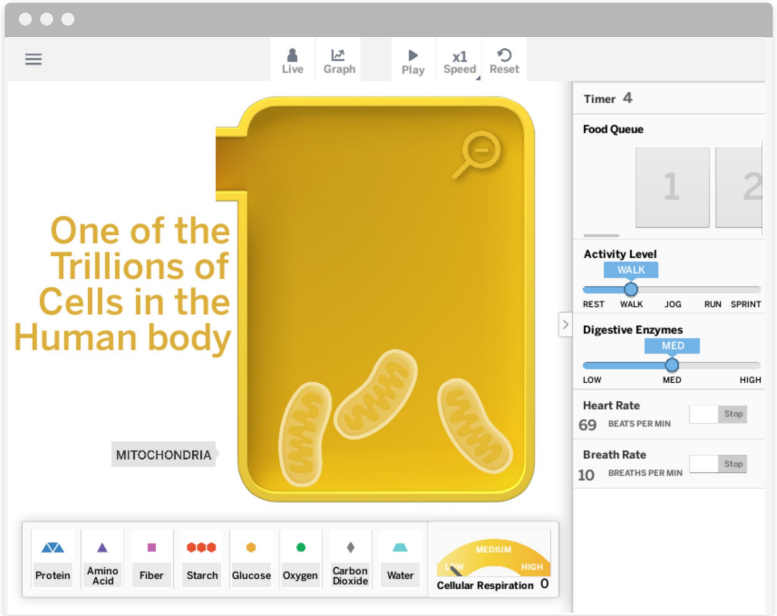


Think about this question.

Which **molecules** enter the cell?

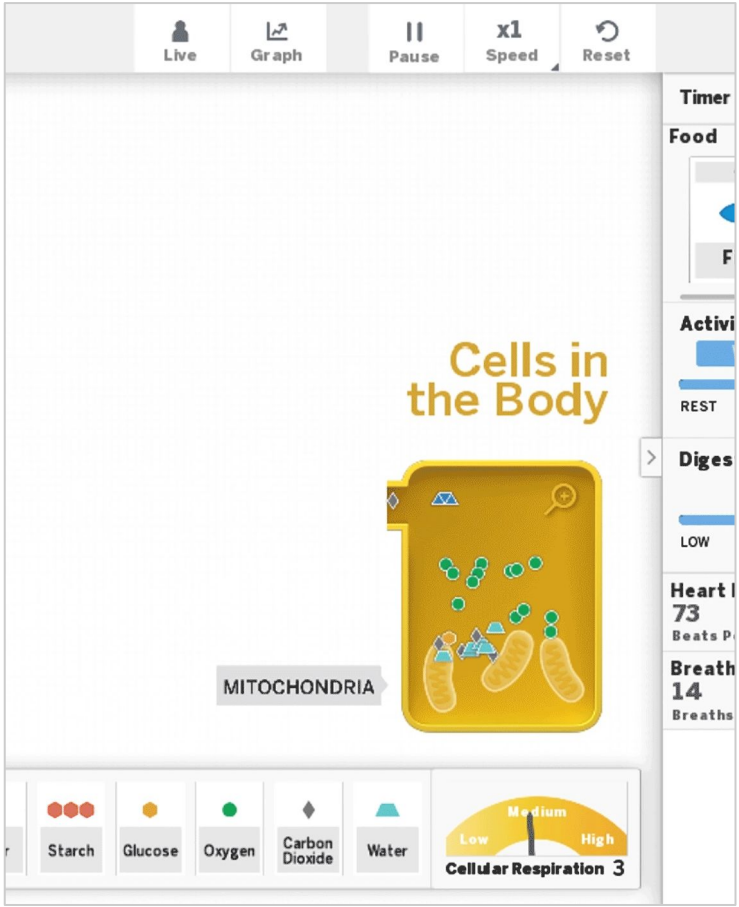
There are certain things we already know the human body needs to function. Two important things the human body needs to survive are **food** and **air.**

As you explore the *Metabolism* Sim, you will **watch what happens to the food and air** that enter this healthy Simulation body.



One thing you will observe is what is happening in the **cells** of the body. We know that our bodies are made of **trillions of cells**.

The Sim shows only one representative cell. We can learn about what all cells need by observing this cell in the Sim.



You will observe **which molecules** are entering the cell.

You can zoom into this cell by pressing on the cell and then on the magnifying glass.

Name: _____ Date: _____

Observing Molecules in the Sim

1. Launch the *Metabolism* Simulation.
2. Select HEALTHY BODY from the menu.
3. Select OBSERVE.
4. Feed the body.

As you watch the Sim investigation, record your observations:

What happens to the food and air that enter this healthy Simulation body?

_____

_____

_____

Which molecules are entering the cell?

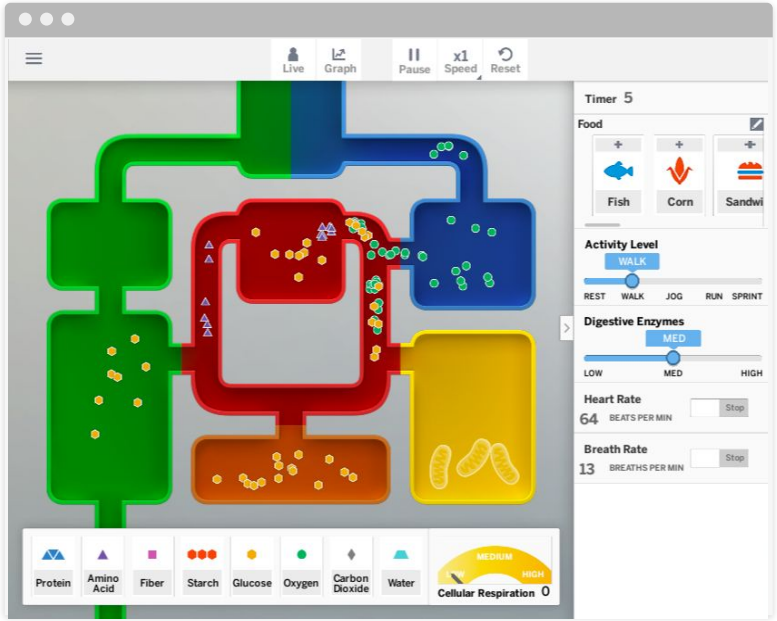
_____

_____

Metabolism @Home Lesson 1

Go to the **Observing Molecules in the Sim** page.

Use the Sim to observe and record what happens to the **food and air** that enter the body, and which **molecules** are entering the cells.



Think about this question.

What did you notice happens to the **food and air** that enter this healthy Simulation body?

You may have noticed that:

- air has oxygen molecules
- food breaks down into different molecules
- some molecules from food and air go into the yellow box representing one of the trillions of cells in the human body.

You probably noticed that these molecules enter the cell:

- glucose (from food)
- amino acids (from food)
- oxygen (from air)

Key Activities

- **Introducing the *Metabolism* Unit:** Students are introduced to the unit problem and their role as medical students. They consider their initial ideas about why their patient Elisa is feeling tired all the time, and are introduced to the claims they will be investigating.
- **Do:** Students are introduced to the *Metabolism* Simulation (Sim) and observe what happens to molecules the body is taking in. Students using @Home Slides use the Sim, while students using @Home packets observe a video of a Sim investigation.
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In the *Metabolism* unit we will be thinking about this question:

Unit Question

How do the trillions of cells in the human body get what they need to function, and what do the cells do with the things they absorb?

Investigating this Chapter Question will help us answer the Unit Question.

Chapter 1 Question

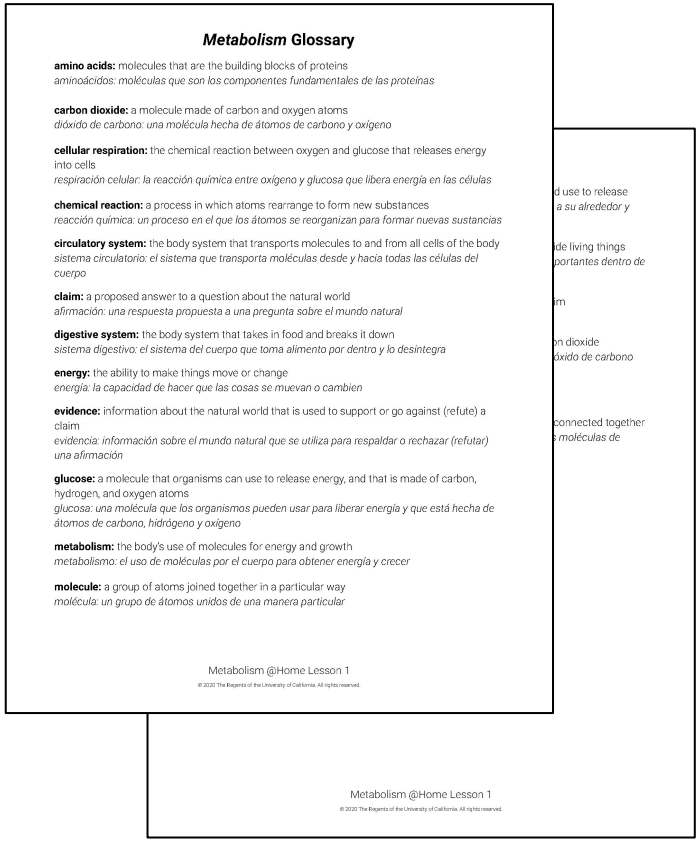
Why does Elisa feel tired all the time?

Here is an important word you will learn more about in this unit.

metabolism

the body’s use of molecules for energy and growth

In this lesson and throughout the unit you will need to **access different pages** such as the Glossary on the next slide. Check with your teacher about how you will access materials and complete and submit work in this @Home Unit.



Metabolism Glossary

amino acids: molecules that are the building blocks of proteins
aminoácidos: moléculas que son los componentes fundamentales de las proteínas

carbon dioxide: a molecule made of carbon and oxygen atoms
dióxido de carbono: una molécula hecha de átomos de carbono y oxígeno

cellular respiration: the chemical reaction between oxygen and glucose that releases energy into cells
respiración celular: la reacción química entre oxígeno y glucosa que libera energía en las células

chemical reaction: a process in which atoms rearrange to form new substances
reacción química: un proceso en el que los átomos se reorganizan para formar nuevas sustancias

circulatory system: the body system that transports molecules to and from all cells of the body
sistema circulatorio: el sistema que transporta moléculas desde y hacia todas las células del cuerpo

claim: a proposed answer to a question about the natural world
afirmación: una respuesta propuesta a una pregunta sobre el mundo natural

digestive system: the body system that takes in food and breaks it down
sistema digestivo: el sistema del cuerpo que toma alimento por dentro y lo desintegra

energy: the ability to make things move or change
energía: la capacidad de hacer que las cosas se muevan o cambien

evidence: information about the natural world that is used to support or go against (refute) a claim
evidencia: información sobre el mundo natural que se utiliza para respaldar o rechazar (refutar) una afirmación

glucose: a molecule that organisms can use to release energy, and that is made of carbon, hydrogen, and oxygen atoms
glucosa: una molécula que los organismos pueden usar para liberar energía y que está hecha de átomos de carbono, hidrógeno y oxígeno

metabolism: the body's use of molecules for energy and growth
metabolismo: el uso de moléculas por el cuerpo para obtener energía y crecer

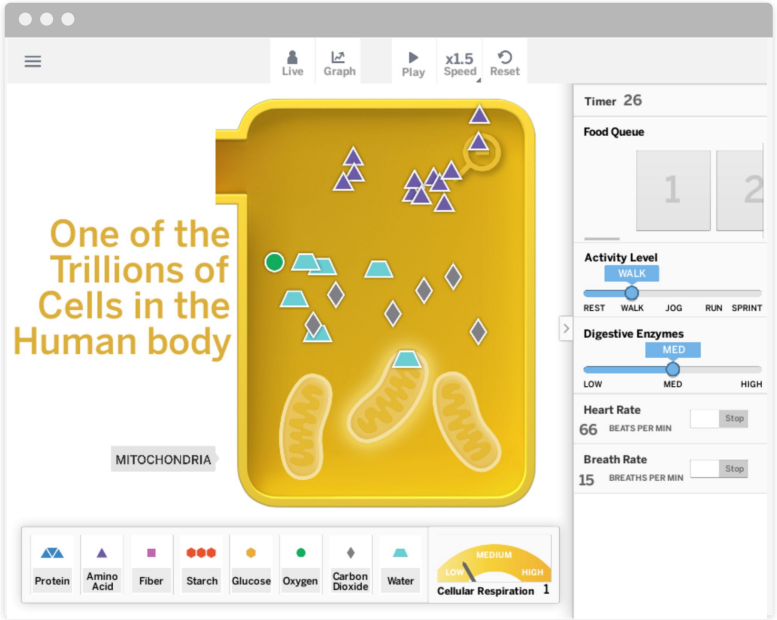
molecule: a group of atoms joined together in a particular way
molécula: un grupo de átomos unidos de una manera particular

Metabolism @Home Lesson 1

Metabolism @Home Lesson 1

Throughout the year, you can look up vocabulary words in the **glossary** to help you understand what they mean. You can find this in your student sheets or in the Amplify Library.

***Metabolism* Glossary** pages or Amplify Library



In the Sim, you observed that in a functioning, healthy body, certain **molecules that come from food and air** are transported into the body's **cells.**

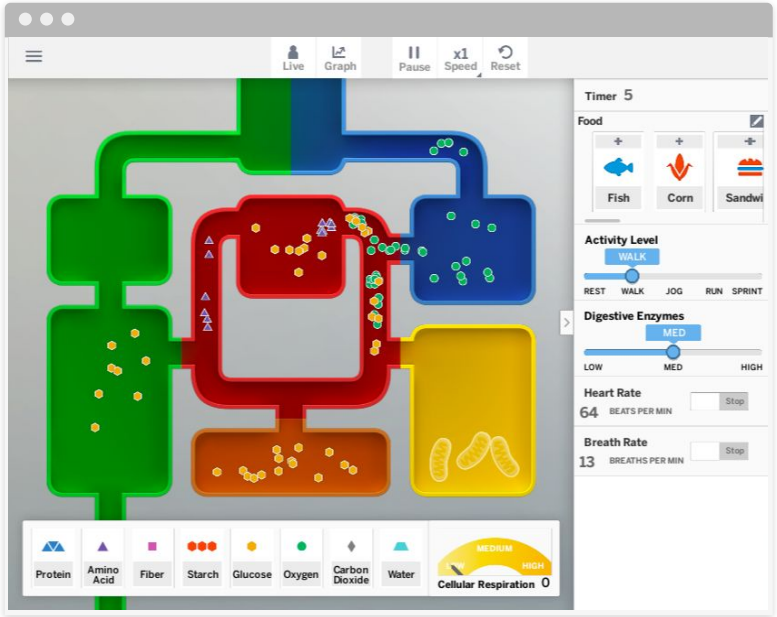
Claims

Elisa is feeling tired because she:

- is not getting enough sleep.
- is not eating enough food or not eating the right foods.
- has a medical condition.

Remember the claims about why Elisa is feeling tired.

Do you have any **new insights** or **changes in thinking** about these claims after observing the Sim?



We will be investigating whether Elisa's problem is related to the **molecules she is taking in from the environment** and/or what is happening in the **cells in her body.**

In this unit, we will continue to learn more about how the **cells of the body** use these molecules for **energy and growth**, allowing the whole body to **function**.

Studying how these processes work in a healthy, functioning body will help us figure out what might be going on in Elisa’s body.

Key Activities

- **Introducing the *Metabolism* Unit:** Students are introduced to the unit problem and their role as medical students. They consider their initial ideas about why their patient Elisa is feeling tired all the time, and are introduced to the claims they will be investigating.
- **Do:** Students are introduced to the *Metabolism* Simulation (Sim) and observe what happens to molecules the body is taking in. Students using @Home Slides use the Sim, while students using @Home packets observe a video of a Sim investigation.
- **Reflect:** Students consider whether they have any new ideas about the claims.

Ideas for synchronous or in-person instruction

Before meeting, have students watch the introductory video. While meeting, have students share their initial ideas about Elisa's condition, then introduce the Sim. You can either have students complete the Sim investigation individually, then share observations as a class, or have students observe and record as you show the Sim. If you are meeting in person with students who don't have digital access at home, take the opportunity to have them complete the Sim investigation in class (as in *Metabolism*, Lesson 1.2, Activity 2).

End of @Home Lesson

THE LAWRENCE HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

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Suggestions for Online Synchronous Time

Online synchronous time

Online discussions: It's worthwhile to establish norms and routines for online discussions in science to ensure equity of voice, turn-taking, etc.

Digital tool demonstrations: You can share your screen and demonstrate, or invite your students to share their screen and think-aloud as they use a Simulation or other digital tool.

Interactive read-alouds: Screen share a digital book or article, and pause to ask questions and invite discussion as you would in the classroom.

Shared Writing: This is a great opportunity for a collaborative document that all your students can contribute to.

Co-constructed class charts: You can create digital charts, or create physical charts in your home with student input.

page 9

Multi-day planning, including planning for differentiation and evidence of student work

Day 1: @Home Lesson 1

Minutes for science: 15 min

Instructional format:
- [x] Asynchronous
- [ ] Synchronous

Lesson or part of lesson:

@Home Lesson 1, video (slides 1-4)

Mode of instruction:
- [x] Preview
- [ ] Review
- [ ] Teach full lesson live
- [ ] Teach using synchronous suggestions
- [x] Students work independently using:
  - [ ] @Home Packet
  - [x] @Home Slides and @Home Student Sheets
  - [ ] @Home Videos

Students will...	Teacher will...
view the video and jot down their initial ideas about what could be causing Elisa to feel tired all the time.	assign slides 1-4 in Schoology and provide direction for students to jot down their ideas when they get to slide 4 to share during the next lesson.

Minutes for science: _____

Instructional format:
- [ ] Asynchronous
- [x] Synchronous

Lesson or part of lesson:

Mode of instruction:
- [ ] Preview
- [ ] Review
- [ ] Teach full lesson live
- [ ] Teach using synchronous suggestions
- [ ] Students work independently using:
  - [ ] @Home Packet
  - [ ] @Home Slides and @Home Student Sheets
  - [ ] @Home Videos

Students will...	Teacher will...

Multi-day planning, including planning for differentiation and evidence of student work

Day 1: @Home Lesson 1

Minutes for science: 15 min

Instructional format:
- [x] Asynchronous
- [ ] Synchronous

Lesson or part of lesson:
@Home Lesson 1, video (slides 1-4)

Mode of instruction:
- [x] Preview
- [ ] Review
- [ ] Teach full lesson live
- [ ] Teach using synchronous suggestions
- [x] Students work independently using:
  - [ ] @Home Packet
  - [x] @Home Slides and @Home Student Sheets
  - [ ] @Home Videos

Students will...
view the video and jot down their initial ideas about what could be causing Elisa to feel tired all the time.

Teacher will...
assign slides 1-4 in Schoology and provide direction for students to jot down their ideas when they get to slide 4 to share during the next lesson.

Minutes for science: 30 min

Instructional format:
- [ ] Asynchronous
- [x] Synchronous

Lesson or part of lesson:
@Home Lesson 1, discussion and simulation (slides 4-28)

Mode of instruction:
- [ ] Preview
- [ ] Review
- [ ] Teach full lesson live
- [x] Teach using synchronous suggestions
- [ ] Students work independently using:
  - [ ] @Home Packet
  - [ ] @Home Slides and @Home Student Sheets
  - [ ] @Home Videos

Students will...
engage in a discussion about their initial ideas, be introduced to the claims they will investigate, explore the simulation, and reflect on learning.

Teacher will...
lead students through the lesson activities using slides 4-28.

Look at the *Students will* columns. What are students working in the lesson(s) that you could collect, review, or provide feedback on?
See Some Types of Written Work in Amplify Science to the right for guidance.

If there isn't a work product listed above, do you want to add one? Make notes below.

Asynchronous: students jot notes about their initial ideas for why Elisa is feeling tired

Synchronous: record observations of molecules using the sim, jot new ideas about the claims after using the sim

Some Types of Written Work in Amplify Science

- Daily written reflections
- Homework tasks
- Investigation notebook pages
- Written explanations (typically at the end of Chapter)
- Diagrams
- Recording pages for Sim uses, investigations, etc

How will students submit this work product to you?
See the Completing and Submitting Written Work tables to the right for guidance on how students can complete and submit work.

Asynchronous: students will bring handwritten notes to the synchronous lesson to share on a Jamboard and discuss

Synchronous: students will turn in the simulation worksheet in Schoology, and add new ideas to the Jamboard to reflect on their learning

Completing Written Work	Submitting Written Work
• Plain paper and pencil (videos include prompts for setup) • (6-8) Student platform • Investigation Notebook • Record video or audio file describing work/answering prompt • Teacher-created digital format (Google Classroom, etc)	• Take a picture with a smartphone and email or text to teacher • Through teacher-created digital format • During in-school time (hybrid model) or lunch/materials pick-up times • (6-8) Hand-in button on student platform

How will you differentiate this lesson for diverse learners? (Navigate to the lesson level on the standard Amplify Science platform and click on differentiation in the left menu.)

ns. What are students working in the lesson(s)
or provide feedback on?
mplify Science to the right for guidance.

above, do you want to add one? Make notes below.
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hare on a Jamboard and discuss

vill turn in the simulation worksheet
w ideas to the Jamboard to reflect on

- I notice/observe . . .
- I think this is important because . . .
- I wonder . . .

Some Types of Written Work in Amplify Science	
• Daily written reflections • Homework tasks • Investigation notebook pages • Written explanations (typically at the end of Chapter) pages for Sim uses, investigations, etc	
Written Work	**Submitting Written Work**
and pencil ude prompts • (6-8) Student platform • Investigation Notebook • Record video or audio file describing work/answering prompt • Teacher-created digital format (Google Classroom, etc)	• Take a picture with a smartphone and email or text to teacher • Through teacher-created digital format • During in-school time (hybrid model) or lunch/materials pick-up times • (6-8) Hand-in button on student platform

How will you differentiate this lesson for diverse learners? (Navigate to the lesson level on the standard Amplify Science platform and click on differentiation in the left menu.)

Supports:

- Make available the @Home Classroom Wall found in the @Home Student Packets to support discussions and writing. Students can add pictures to go with the vocabulary/key concepts to help them make meaning.
- Provide sentence starters for use in discussion and writing.

Extension:

- Write a critique of the simulation as a model of the human body.

Planning Resource

pages 7 & 8

Day 2:_____

Minutes for science: _____ **Instructional format:** ☐ Asynchronous ☐ Synchronous	**Minutes for science:** _____ **Instructional format:** ☐ Asynchronous ☐ Synchronous
Lesson or part of lesson: **Mode of instruction:** ❑ Preview ❑ Review ❑ Teach full lesson live ❑ Teach using synchronous suggestions ❑ Students work independently using: ❑ @Home Packet ❑ @Home Slides and @Home Student Sheets ❑ @Home Videos	**Lesson or part of lesson:** **Mode of instruction:** ❑ Preview ❑ Review ❑ Teach full lesson live ❑ Teach using synchronous suggestions ❑ Students work independently using: ❑ @Home Packet ❑ @Home Slides and @Home Student Sheets ❑ @Home Videos

Students will...	Teacher will...	Students will...	Teacher will...

Some Types of Written Work in Amplify Science

ten reflections
k tasks
ion notebook pages
xplanations (typically at the end of Chapter)

g pages for Sim uses, investigations, etc

Written Work	Submitting Written Work
r and pencil lude prompts nt platform on Notebook eo or audio file vering prompt eated digital ogle , etc)	• Take a picture with a smartphone and email or text to teacher • Through teacher-created digital format • During in-school time (hybrid model) or lunch/materials pick-up times • (6-8) Hand-in button on student platform

Science platform and click on differentiation in the left menu.)

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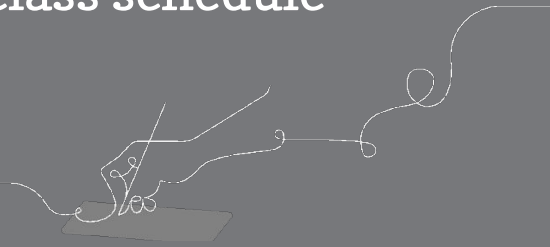
Questions?

Plan for the day

- Framing the day
  - Amplify Science Refresher
  - Instructional Materials
- Unit Internalization
- Planning to teach
  - Collecting evidence of student learning to meet diverse learner needs
- **Reflection and closing**

During this workshop did we meet our objectives?

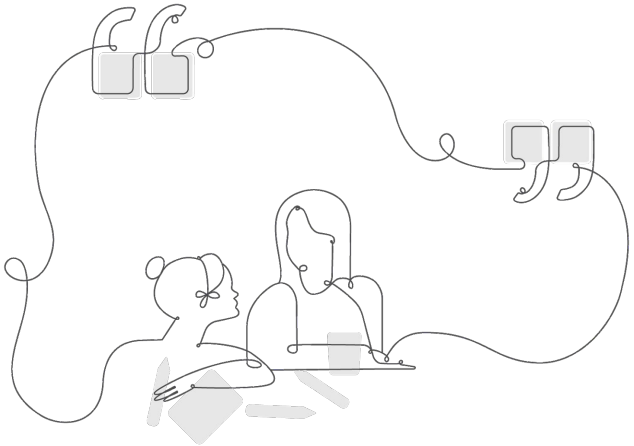
- Were you able to internalize your upcoming unit?
- Do you know how to plan for **collecting evidence of student learning** in order to make instructional decisions to **support diverse learner needs**?
- Do you have the resources you need to develop a multi-day plan for implementing Amplify Science within your class schedule and instructional format?



Upcoming LAUSD Office Hours

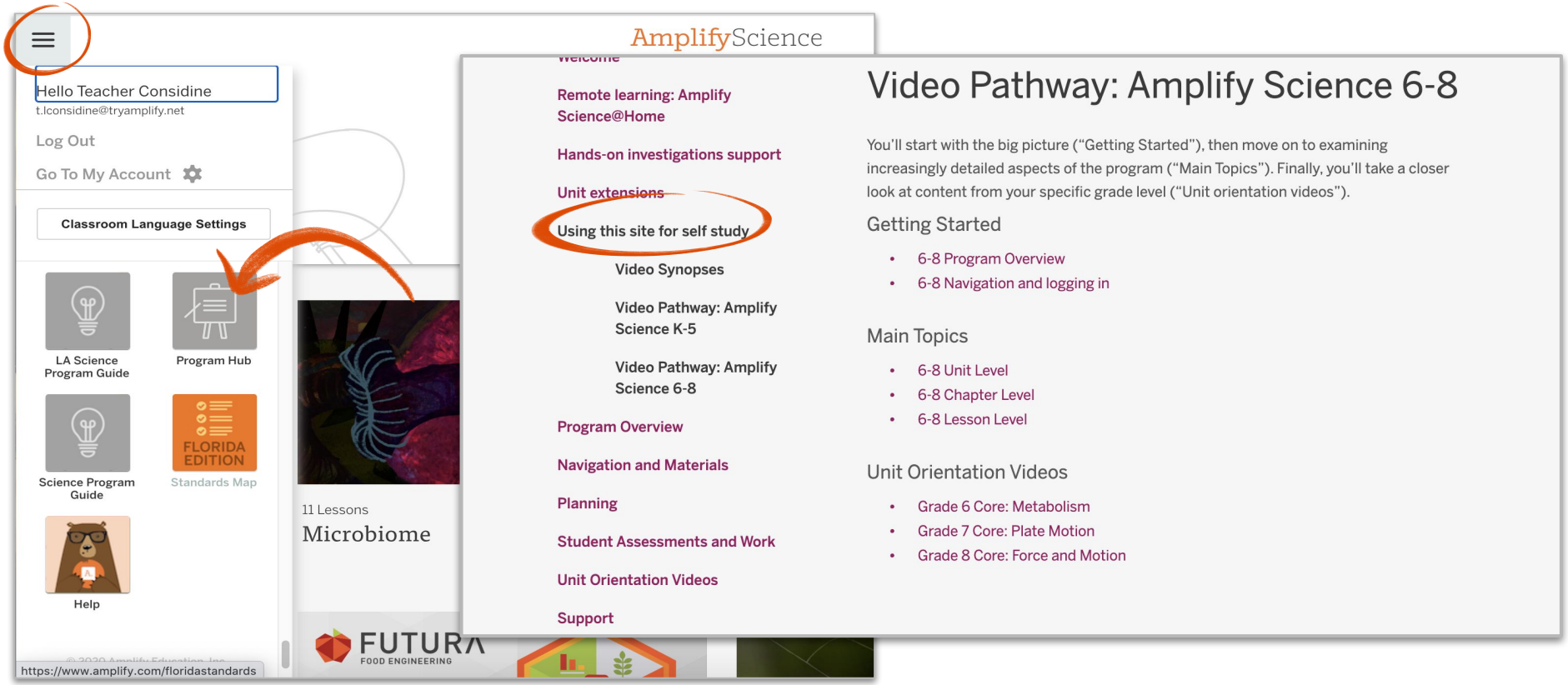
Bi-weekly through October

- Thursday, 10/15 (3-4pm)
- Thursday, 10/29 (3-4pm)



https://tinyurl.com/6-8OfficeHours

Program Hub: Self Study Resources



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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/

Back to school national webinar series

Now-October, topics include:

- Remote and hybrid learning support
- Navigation support
- What's new for 2020-2021
- Planning support
- Curriculum overview

bit.ly/BTSwebinars

Additional Amplify resources

Caregivers site

Provide your students' families information about Amplify Science and what students are learning

amplify.com/amplify-science-family-resource-intro/

Additional Amplify resources

Program Guide

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

http://amplify.com/science/california/review

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.

Smart Start Plans

Middle School Science Schoology Group

- Access code to join the Schoology Group: **SPG7G-K7BT9**
- Once in the group, you will find the Smart Start Plans under *resources*.

Day	Learning Objective	What teacher does	What students do
Monday	**Instructional Support Day**		
Day 4	**Synchronous (60 min)**		
	1. Community Building (SEL) • Creating a safe space for sharing on Zoom using Community Circle.	**1. Community Building** (SEL) • The teacher will pose a question to students and have students respond in the Zoom chat. *Thinking about the world around you, name at least 2 instances where you observe science happening.*	**1. Community Building** (SEL) • Students will respond to the question posed by the teacher in the chat.
	2. Aspects of Modeling: • Deepen students' understanding of scientific models. (SEP Modeling)	**2. Aspects of Modeling:** • Read article and watch video Students need to understand the role of modeling in science.	**2. Aspects of Modeling** • Students will read this article and watch this video and answer questions in a Schoology Quiz: in LAUSD MS Science Group: SPG7G-K7BT9) or in Google Docs.
	3. Uploading Images to a Discussion • Learn how to upload an image to a Schoology Discussion using a video tutorial. (Tool)	**1. Uploading Images to a Discussion** • The teacher provides students the link to the informational video on "How to upload the image to Schoology discussion."	**3. Uploading Images to a Discussion** • Students will watch a tutorial on how to upload an image to a Schoology discussion. • Students upload their initial model of the phenomenon to a Schoology discussion.
	4. Introduce Initial Model Critique • Critique a model of a classmate in a constructive way to promote collaboration and student discussion. (SEP Modeling)	**4. Introduce Initial Model Critique** • Using the Discussion and Writing Prompts PDF select sentence starters from pages 6 and 8 to have students use to critique the models of classmates.	**4. Introduce Initial Model Critique** • Students return to the Initial Model in Schoology Discussion and critique the model of at least 1 classmate.
Day 4	**Asynchronous**		
	Revise Initial Model: • Apply understanding of modeling (SEP modeling) and students revise their initial model.	**Revise Initial Model:** • The teacher provides an opportunity for students to revise their initial model based on article and feedback.	**Revise Initial Model:** • Students will revisit their initial model and make edits based on critiques from classmates and the reading. • Students will add an explanation of how their model changed and why they made the changes. • Students upload their revised model to Schoology discussion.

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

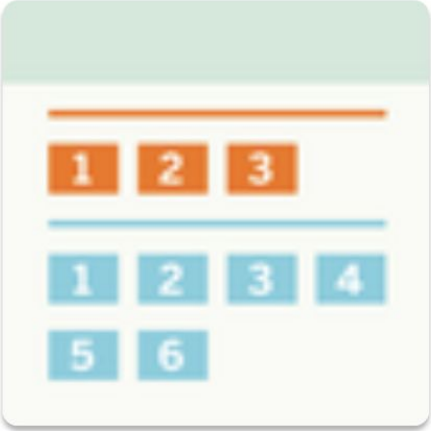
Elementary Student Apps Shared Logins

English

- Username: ampsci123
- Password: ampsci123

Spanish

- Username: ampsci123sp
- Password: ampsci123sp



Elementary Student Apps