

Frequently Asked Questions



Table of contents

How many units are included in the TK curriculum?.....	3
Is there a specific order for teaching TK units?.....	3
What materials are included with the TK units?.....	4
What materials do TK teachers need to provide?.....	4
How are the TK units structured?.....	4
What is the time frame for instructing a TK unit?.....	5
How are TK units designed to be implemented?.....	5
How do the TK units align with the Next Generation Science Standards (NGSS)?.....	5
What is the TK approach to assessment?.....	5
What is the TK approach to vocabulary?.....	6
Why don't the vocabulary cards and key concepts include associated images?.....	6
Do the TK units include opportunities for family involvement?.....	6
Where can I find more information about the TK curriculum?.....	6

Frequently Asked Questions

How many units are included in the TK curriculum?

- Amplify Science TK is comprised of three units, one for each domain of science: Life Science, Physical Science, and Earth Science. The Physical Science unit also includes an engineering design challenge. The three TK units are as follows:



Life Science
Wondering About
Noises in Trees



Physical Science
Wondering About
Buildings



Earth Science
Wondering About
Puddles

Is there a specific order for teaching TK units?

- While the three units may be taught in any order, we highly recommend that the units be implemented in the following sequence:
 1. Life Science (fall)
 2. Physical Science (winter)
 3. Earth Science (spring)
- This sequence is recommended for several reasons: a) Units are designed to be responsive to children's developmental and learning profiles; b) units are designed to gradually increase the academic expectations for students' talking, reading, writing, and investigating across the TK year; and c) assigning units to a particular time of year maximizes opportunities to include observing phenomena and collecting data outdoors.

What materials are included with the TK units?

- Each Amplify Science TK unit is comprised of a robust printed Teacher's Guide and an accompanying set of print materials.
- Print materials for each unit include: an informational Big Book, three printed Science Question cards, a set of printed vocabulary cards, and a set of picture cards with colorful photographs and/or illustrations.



What materials do TK teachers need to provide?

- The Planning for the Unit section at the beginning of each Teacher's Guide includes a detailed list of materials (and associated quantities) needed to teach the unit. Some of these materials are those that teachers will typically have on hand in their classrooms (e.g., crayons, sentence strips, masking tape), whereas other materials may require a bit of additional planning to obtain (e.g., leaves and acorns, cardboard tubes).

How are the TK units structured?

- Each Amplify Science TK unit begins with an Introductory Activity that introduces a phenomenon.
- The Introductory Activity is followed by a series of three Explorations—each Exploration is comprised of a Kickoff Discussion, four activities, and a Shared Drawing and Discussion.
- Each unit ends with a Culminating Activity that consolidates students' understanding.

What is the time frame for instructing a TK unit?

- Each instructional activity (e.g., Introductory Activity, Kickoff Discussion, Exploration) is designed to span approximately 15 minutes.
- Depending on the implementation options chosen, teaching an entire unit will take approximately 4–6 weeks.

How are TK units designed to be implemented?

- The Amplify Science TK instructional guide is written for teaching in a whole-class setting. However, teachers can choose to implement Activities 1–4 within each Exploration in alternative settings such as small groups or science centers. To support planning and decision-making, each Exploration includes a Suggestions for Flexible Implementation teacher reference that provides guidance on how to adjust activities 1–4 to incorporate an independent science center.

How do the TK units align with the Next Generation Science Standards (NGSS)?

- The NGSS framework does not currently include a unique set of standards tailored to students in TK. As such, the Amplify Science TK units were designed to align with the three NGSS dimensions that span across grade levels—Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts.
- Amplify Science TK units provide precursory experiences to support students in developing the foundational skills and practices that will enable them to be successful in meeting the NGSS in later elementary years.

What is the TK approach to assessment?

- Amplify Science TK units include a series of embedded assessment opportunities.
- Each Exploration includes a formative assessment opportunity within one of the activities. These assessment opportunities are designed to support teachers in monitoring students' progress toward answering the unit's science questions and understanding the unit's central science ideas, as well as students' facility with engaging in focal science practices.
- The Culminating Activity includes an opportunity for a paired self-assessment in which partners reflect on new ideas they've developed by engaging in the unit. The self-assessment supports students in monitoring their understanding and taking ownership of their learning.

What is the TK approach to vocabulary?

- Amplify Science TK units have six or seven focal vocabulary words per unit.
- Each new vocabulary word is introduced formally through an oral routine, and then posted to the classroom wall. Some words may also be introduced informally in talk or text before the formal routine.

Why don't the vocabulary cards and key concepts include associated images?

- The developers of the Amplify Science TK curriculum made a conscious decision not to include images to accompany the vocabulary and key concepts for several reasons: a) Many science concepts are difficult to convey with a single or static image and thus, inclusion of an individual image could inadvertently lead to confusion or alternate conceptions; and b) if images were included on the print materials to be posted on the classroom wall, these images would be too small to be identifiable from a distance that students typically sit in relation to the wall in a classroom setting.
- The unit developers recommend that teachers provide opportunities for students to personalize their understanding of vocabulary words by having each student create a drawing that represents their understanding of a word's meaning, which can result in students developing a more meaningful connection to each word. Some teachers choose to enhance students' understanding by having each child create a picture glossary that features a box for drawing next to each vocabulary word.

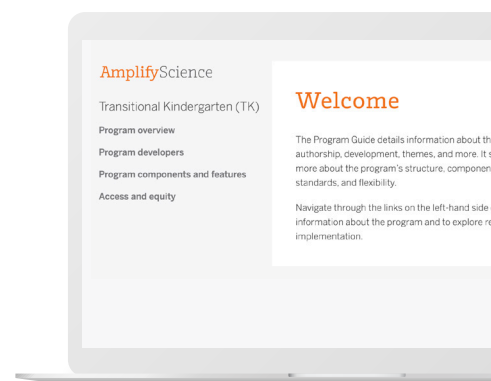
Do the TK units include opportunities for family involvement?

- Each Introductory Activity and Culminating Activity includes an optional Home Connection to send home with students. These Home Connections can encourage interaction and discussion between students and their families around science concepts, which is beneficial to student learning.

Where can I find more information about the TK curriculum?

- The Amplify Science TK Program Guide contains additional information about the TK curriculum and can be accessed with the following link:

<https://my.amplify.com/programguide/content/national/welcome/tk/>



For more information on
Amplify Science, visit
amplify.com/science-tk



Amplify.



THE LAWRENCE
HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

All curriculum materials © 2019 The Regents of the University of California.
© 2019 Amplify Education, Inc. All trademarks and copyrights are the property of Amplify or its licensors.
Mystery Science® is a registered trademark of Mystery Science, Inc.