

Louisiana Believes

Louisiana Guide to Implementing Amplify: Grade 4

To assist teachers with the implementation of the fourth grade Amplify curriculum, this document provides guidance regarding how Amplify units correlate with the Louisiana Student Standards for Science (LSSS). The Amplify curriculum provides ample instructional guidance for teachers. This Louisiana Guide for Implementing Amplify goes a step further to point out places in which teachers may need to make strategic decisions considering student needs and time availability.

This guidance document is considered a “living” document as we believe that teachers and other educators will find ways to improve the document as they use it. Please send feedback to classroomsupporttoolbox@la.gov so that we may use your input when updating this guide.

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Standards by Unit¹

	Unit 1 Earth's Features	Unit 2 Vision & Light	Unit 3 Energy Conversions	Unit 4 Waves, Energy, & Information
Number of Lessons	22 lessons	22 lessons	22 lessons	22 lessons
Anchor Phenomenon Question	What was the environment of this place like in the past?	Why is an increase in light affecting the health of Tokay geckos in a Philippine rain forest?	Why does Ergstown keep having blackouts?	How can a mother dolphin and her calf communicate underwater when they cannot see each other? How can humans use patterns to communicate?
Books in the Unit	<i>Clues for the Past Through the Eyes of a Geologist</i> <i>Arguing to Solve a Mystery</i> <i>Rocky Wonders</i> <i>Fossil Hunter's Handbook</i>	<i>Investigating Animal Senses I See What You Mean</i> <i>Crow Scientist</i> <i>Seeing Like a Shrimp and Smelling Like a Snake</i> <i>Handbook of Animal Eyes</i>	<i>Systems Energy Past and Present</i> <i>Sunlight and Showers</i> <i>Blackout!</i> <i>It's All Energy</i>	<i>Warning: Tsunami!</i> <i>Sound of the Move</i> <i>Seeing Sound</i> <i>The Scientist Who Cracked the Dolphin Code</i> <i>Patterns in Communication</i>
Standards	4-ESS1-1 4-ESS2-1 4-ESS2-2 4-ESS3-2	4-LS1-1 4-LS1-2 4-PS4-2	4-PS3-1 4-PS3-2 4-PS3-3* 4-PS3-4 4-ESS3-1 4-ESS3-2*	4-PS3-3 4-PS4-1 4-ESS3-2 4-LS1-2*

* The performance expectation is only partially addressed using the identified phenomenon. The performance expectation is addressed in other unit(s). Standard 4-ESS2-3 is partially addressed throughout the Grade 4 modules.

¹ Adapted from guidance developed by Amplify

Investigative Phenomena by Unit¹

Units	Investigative Phenomena Questions
Unit 1 Earth's Features	Chapter 1: How did the fossil get inside the rocky outcrop? Chapter 2: What was the environment of Desert Rocks National Park in the past? Chapter 3: What is the order of the past environments of Desert Rocks National Park? Chapter 4: Why did more rock layers get exposed in Desert Rocks Canyon than in Keller's Canyon?
Unit 2 Vision & Light	Chapter 1: How does a Tokay gecko get information about its environment? Chapter 2: How does light allow a Tokay gecko to see its prey? Chapter 3: How does a Tokay gecko know that it is looking at its prey? Chapter 4: How could more light at night make it hard for a Tokay gecko to see its prey? Chapter 5: How do our senses help us understand our environment?
Unit 3 Energy Conversions	Chapter 1: What happened to the electrical system the night of the Ergstown blackout? Chapter 2: What makes the devices in Ergstown output energy or fail to output energy? Chapter 3: Where does the electrical energy for the devices in Ergstown come from? Chapter 4: How does energy get to the devices all over Ergstown?
Unit 4 Waves, Energy, & Information	Chapter 1: Why are the snails with yellow shells not surviving well? Chapter 2: Why are the snails with banded shells more likely to survive than the snails with yellow shells? Chapter 3: Why were snails with yellow shells more likely to survive in their environment 10 years ago? Chapter 4: How can engineers use what they learn from organisms' traits to design solutions?

¹ Adapted from guidance developed by PhD Science

Alignment to EAGLE 2.0

The EAGLE 2.0 online tool supports formative assessment in the classroom and can be used in conjunction with Amplify Science assessment guidance to enhance teaching and learning. [A Teacher’s Guide to LEAP 360](#) provides an overview of the online tool and information on how to access the science EAGLE assessment items. The assessment items can be used immediately following a unit of study to help measure student progress.

Unit	Eagle Discrete Items	EAGLE Item Sets and Practice Test Items
Unit 1 Earth’s Features	998125 (4-ESS2-1) Grand Canyon (4-ESS2-1) Dam (4-ESS2-1) Ashfall (4-ESS3-2)	Practice Test Item Set Hawaiian Volcanoes (4-ESS2-2 and 4-ESS3-2) Sierra Nevada (4-ESS1-1 and 4-ESS2-2)
Unit 2 Vision & Light	Green Pitcher 1025204 (4-LS1-1) Spiders 4 1025223 (4-LS1-2) 1025238 (4-PS4-2)	Practice Test Item Set Predator and Prey (4-LS1-2 and 4-PS4-2) Practice Test Item Beavers (4-ESS2-3 and 4-LS1-1) Blackbirds (4-ESS2-3 and 4-LS1-1)
Unit 3 Energy Conversions	1025192 (4-PS3-1) 1025194 (4-PS3-2) 1025196 (4-PS3-4) Wind Power 136574 (4-ESS3-1)	Practice Item Set Heating with Solar Energy (4-PS3-4 and 4-ESS3-1) Practice Test Item Set Marble Experiment (4-PS3-1 and 4-PS3-3) Practice Test Item Striking Flint (4-PS3-3 and 4-PS3-2)
Unit 4 Waves, Energy, & Information	1025361 (4-PS3-3) Puddles 1025227 (4-PS4-1)	Hurricanes (4-ESS2-1 and 4-PS4-1)
Additional Standards	Termite (4-ESS2-3)	

Amplify Materials and Professional Development

Professional Development Services

Amplify professional development sessions are designed for teachers, teacher leaders, instructional coaches, curriculum specialists, and administrators. For information about PhD Science professional development services, review the [PD Vendor Guide](#).

Purchasing Information

Amplify Education offers Amplify Science as a [Tier 1](#) science program for grades 3-5. Print materials and kits are available for purchase. The [Amplify Price List](#) provides an overview of the materials and kits available through the Department's [Instructional Materials Contract Pricing](#).