



Teaching and Learning

Louisiana Guide to Implementing Amplify: Grades K-2

To assist teachers with the implementation of the Amplify curriculum for grade K-2, 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.

The Amplify Science Grade K-2 units may include performance expectations from future grade levels. These units are intentionally designed to provide students the opportunity to incrementally make sense of phenomena to build understanding and abilities over time through a coherent storyline. Modification to the sequence or content of lessons within these units could undermine the design and therefore should be approached with caution and careful consideration.

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 STEM@la.gov so that we may use your input when updating this guide.

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Standards by Unit: Kindergarten¹

	Unit 1 Needs of Plants and Animals	Unit 2 Pushes and Pulls	Unit 3 Sunlight and Weather
Number of Lessons	22 Lessons	22 Lessons	22 Lessons
Anchor Phenomenon Question	How can kids in Mariposa Grove attract monarch caterpillars to their neighborhood?	How can we create a pinball machine for our class?	Why are the playgrounds at two schools different temperatures? Why does one playground flood?
Standards	K-LS1-1 K-ESS3-1 K-ESS3-3 K-ESS2-2	K-PS2-1 K-PS2-2	K-PS3-1 K-PS3-2 K-ESS2-1 K-ESS3-2

¹ Adapted from guidance developed by Amplify Science

Investigative Phenomena by Unit: Kindergarten¹

Unit	Investigative Phenomena Question
Unit 1 Needs of Plants and Animals	Chapter 1: Why are there no monarch caterpillars since the Field was made into the Garden? Chapter 2: Why did two milkweed seeds become plants, but the other did not? Chapter 3: Why do the milkweed plants that get water grow differently? Chapter 4: How can humans make sure that other living things will be able to live and grow?
Unit 2 Pushes and Pulls	Chapter 1: How do we make a pinball start to move? Chapter 2: How can we make a pinball move as far as we want? Chapter 3: How do we make a pinball move to a certain place? Chapter 4: How do we make a moving pinball change direction? Chapter 5: How can we make the pinball machine do all the things we want it to do? Chapter 6: Where are the forces around us?
Unit 3 Sunlight and Weather	Chapter 1: What is the weather like on the playgrounds? Chapter 2: Why do playgrounds get warm? Chapter 3: Why are the playgrounds warmer in the afternoon? Chapter 4: Why is Woodland Elementary School's playground always warmer during recess? Chapter 5: Why does only Woodland Elementary School's playground flood?

¹Adapted from guidance developed by Amplify Science

Standards by Unit: Grade 1¹

	Unit 1 Animal and Plant Defenses	Unit 2 Light and Sound	Unit 3 Spinning Earth
Number of Lessons	22 lessons	22 lessons	22 lessons
Anchor Phenomenon Question	How can a sea turtle survive in the ocean after being released by an aquarium?	How can we use light and sound to design shadow scenery and sound effects for a puppet theater?	Why doesn't the sky always look the same?
Standards	1-LS1-1 1-LS1-2 1-LS3-1	1-PS4-1 1-PS4-2 1-PS4-3 1-PS4-4	1-ESS1-1 1-ESS1-2 1-PS4-2

¹Adapted from guidance developed by Amplify Science

Investigative Phenomena by Unit: Grade 1¹

Unit	Investigative Phenomena Question
Unit 1 Animal and Plant Defenses	Chapter 1: How does Spruce the Sea Turtle do what she needs to do to survive? Chapter 2: How can Spruce the Sea Turtle survive where there are sharks? Chapter 3: How can Spruce the Sea Turtle's offspring survive where there are sharks? Chapter 4: How can aquarium scientists explain animal defenses to visitors?
Unit 2 Light and Sound	Chapter 1: How do we make brighter or darker areas on a surface? Chapter 2: How do we make a dark area in a bright puppet show scene? Chapter 3: How do we make bright, medium bright, and dark areas in a puppet show scene? Chapter 4: How do we design a sound source to go with a puppet show scene?
Unit 3 Spinning Earth	Chapter 1: Why did the sky look different to Sai than to his grandma? Chapter 2: Why was it daytime for Sai when it was nighttime for his grandma? Chapter 3: Why did daytime change to nighttime while Sai talked on the phone? Chapter 4: What will Sai see in the sky when he calls his grandma tomorrow? Chapter 5: Why was it nighttime for Sai when he called his grandma during winter?

¹ Adapted from guidance developed by Amplify Science

Standards by Unit: Grade 2¹

	Unit 1 Plant and Animal Relationships	Unit 2 Properties of Materials	Unit 3 Changing Landforms
Number of Lessons	22 lessons	22 lessons	22 lessons
Anchor Phenomenon Question	What is happening to the chalta trees in the Bengal Tiger Reserve?	How can we design a glue mixture that is better than what the school uses now?	Why is the edge of the ocean cliff closer to the flagpole than it used to be?
Standards	2-LS2-1 2-LS2-2 2-LS4-1 2-ESS2-2	2-PS1-1 2-PS1-2 2-PS1-3 2-PS1-4	2-ESS1-1 2-ESS2-1 2-ESS2-2 2-ESS2-3

¹Adapted from guidance developed by Amplify Science

Investigative Phenomena by Unit: Grade 2¹

Unit	Investigative Phenomena Question
Unit 1 Plant and Animal Relationships	Chapter 1: Why aren't new chalta trees growing in the Bengal Tiger Reserve? Chapter 2: Why aren't the chalta seeds getting the sunlight and water they need to grow? Chapter 3: Why aren't the chalta seeds getting to places where they can grow? Chapter 4: How are other seeds in the reserve able to get to places where they can grow?
Unit 2 Properties of Materials	Chapter 1: How can you make a sticky glue? Chapter 2: Can heating a substance (and returning it to its original temperature) make a better glue? Chapter 3: What ingredients can be used to make a glue that is sticky and strong? Chapter 4: What is the glue recipe that best meets our design goals?
Unit 3 Changing Landforms	Chapter 1: How did the edge of the cliff get to be so close to the flagpole? Chapter 2: How did the recreation center's cliff change? Chapter 3: How did the recreation center's cliff erode without the director noticing? Chapter 4: Could the recreation center's cliff erode quickly?

¹Adapted from guidance developed by Amplify Science