

#### **Teaching and Learning**

# Louisiana Guide to Implementing Amplify: Grade 5

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### **Purpose**

To assist teachers with the implementation of the Amplify curriculum for grade 5, this document provides guidance regarding how Amplify units correlate with the <u>Louisiana Student Standards for Science</u> (LSSS). The Amplify curriculum provides ample instructional guidance for teachers. This Louisiana Guide to 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 5 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, reflecting the expectation that teachers and other educators will continue to identify opportunities for improvement as it is applied in practice. Please send feedback to <a href="mailto:STEM@la.gov">STEM@la.gov</a> so that the LDOE may incorporate your suggestions when updating this guide.

## Standards by Unit<sup>1</sup>

	Unit 1 Patterns of Earth & Sky	Unit 2 Modeling Matter	Unit 3 The Earth System	Unit 4 Ecosystem Restoration
Number of Lessons	22 Lessons	22 Lessons	26 Lessons	22 Lessons
Anchor Phenomenon Question	Archaeologists discovered part of an ancient artifact that depicts the sun and other stars. How can we figure out what would have appeared on the missing piece?	What happens when two substances are mixed together?	What can determine how much water is available for human use?	Why are the jaguars and sloths in a reforested part of the Costa Rican rainforest ecosystem growing and thriving?
Standards	5-ESS1-1 5-ESS1-2 5-PS2-1	5-PS1-1 5-PS1-2 5-PS1-3 5-PS1-4*	5-ESS2-1 5-ESS2-2 5-ESS3-1 5-PS1-1 5-PS1-2 5-PS1-3* 5-PS1-4 5-LS2-1*	5-LS1-1 5-LS2-1 5-PS1-1 5-PS1-4* 5-PS3-1 5-ESS3-1

<sup>\*</sup> The performance expectation is only partially addressed using the identified phenomenon. The performance expectation is addressed in other unit(s).

<sup>&</sup>lt;sup>1</sup>Adapted from guidance developed by Amplify Science

## Investigative Phenomena by Unit<sup>1</sup>

Unit	Investigative Phenomena Question
Unit 1 Patterns of Earth & Sky	Chapter 1: Why don't we see a lot of stars in the daytime? Chapter 2: Why is the sun up sometimes, but not other times? Chapter 3: Why do we see different stars at different times of year? Chapter 4: How can we investigate why we see different stars on different nights?
Unit 2 Modeling Matter	Chapter 1: Why did the food coloring separate into different dyes? Chapter 2: Why do some salad dressings have sediments, and others do not? Chapter 3: Why can salad-dressing ingredients separate again after being mixed?
Unit 3 The Earth System	Chapter 1: Why is East Ferris running out of water while West Ferris is not? Chapter 2: Why does rain form over West Ferris than East Ferris? Chapter 3: Why is more water vapor getting cold over West Ferris than East Ferris? Chapter 4: Why is there more water vapor high up over West Ferris than East Ferris? Chapter 5: How can East Ferris turn wastewater into clean freshwater?
Unit 4 Ecosystem Restoration	Chapter 1: Why aren't the jaguars and sloths growing and thriving? Chapter 2: Why aren't the cecropia trees growing and thriving? Chapter 3: Why aren't the cecropia trees growing and thriving in the soil?

<sup>&</sup>lt;sup>1</sup>Adapted from guidance developed by Amplify Science

#### **LDOE Formative Assessment Resources**

LDOE formative assessment resources include a library of Louisiana educator-created discrete items and sets, LEAP Practice Test Items, and LEAP Assessment Guide Items correlated to the Louisiana Student Standards for Science. These resources can be used alongside guidance from a high-quality curriculum to provide opportunities for students to showcase their learning.

Unit	Discrete Items	Item Sets and Practice Test Items
Unit 1 Patterns of Earth & Sky	LDOE Formative Assessment Items (Password - Educate2020):  Gravity (5-PS2-1) Skies, Two Stars (5-ESS1-1) Constellations, Moon Cycle (5-ESS1-2)  LEAP Practice Test Standalone Items: 40 (5-PS2-1) 37 (5-ESS1-1) 21 & 36 (5-ESS1-2)  LEAP Assessment Guide Items: Sky Patterns (5-ESS1-2)  LEAP Science Released Items: Distance from Earth (5-ESS1-1) Diving Board (5-PS2-1)	LDOE Formative Assessment Sets (Password - Educate2020)  • N/A  LEAP Practice Test Sets:  • Task Set: Brightness and Shadows (5-ESS1-1 and 5-ESS1-2)  LEAP Assessment Guide Sets:  • N/A  LEAP Science Released Items:  • N/A
Unit 2 Modeling Matter	<ul><li>Gas Particles (5-PS1-1)</li><li>Coolers, Burning Wood, Mixing Substances (5-PS1-2)</li></ul>	LDOE Formative Assessment Sets (Password - Educate2020)  • Item Set: Diamond Mining (5-PS1-3 and 5-PS1-4)  LEAP Practice Test Sets:  • Item Set: Mineral Identification (5-PS1-3 and 5-PS1-1)  • Item Set: Mixing Liquids (5-PS1-2 and 5-PS1-4)  LEAP Assessment Guide Sets:  • N/A

Unit	Discrete Items	Item Sets and Practice Test Items
Unit 2 continued	LEAP Assessment Guide Items:	<ul> <li>LEAP Science Released Items:</li> <li>Item Set: Saltwater Reactions (5-PS1-3 and 5-PS1-4)</li> </ul>
	<ul> <li>LDOE Formative Assessment Items (Password - Educate 2020):</li> <li>Precipitation (5-ESS2-1)</li> <li>Water Distribution (5-ESS2-2)</li> <li>Air Pollution, Dust Storms (5-ESS3-1)</li> <li>Hoey (5-PS1-4)</li> </ul>	LDOE Formative Assessment Sets (Password - Educate2020)  • N/A  LEAP Practice Test Sets:  • Item Set: Louisiana Black Bears (5-ESS3-1)  • Item Set: Controlling Runoff (5-ESS2-1 and 5-ESS3-1)
Unit 3 The Earth	<ul> <li>LEAP Practice Test Standalone Items:</li> <li>■ 14 (5-PS1-4)</li> <li>■ 34 &amp; 39 (5-ESS2-2)</li> </ul>	LEAP Assessment Guide Sets:  N/A
System	LEAP Assessment Guide Items:  ■ Milk Investigation (5-PS1-4)  ■ Water on Earth (5-ESS2-2)	LEAP Science Released Items:  ■ Task set: Melting Fruit Pops (5-PS1-1 and 5-PS1-2)
	<ul> <li>LEAP Science Released Items:</li> <li>Wave Tank (5-ESS2-1)</li> <li>Oil Spills (5-ESS3-1)</li> </ul>	
Unit 4	<ul> <li>LDOE Formative Assessment Items (Password - Educate2020):</li> <li>Plant Project, Atchafalaya Basin (5-LS1-1)</li> <li>Water Hyacinths, African Ecosystems, Walter's Food Web (5-LS2-1)</li> </ul>	<ul> <li>LDOE Formative Assessment Sets (Password - Educate2020)</li> <li>Item Set: Australian Ecosystem (5-LS2-1* and 5-PS3-1)</li> <li>Item Set: Biomes (5-ESS3-1 and 5-LS1-1)</li> </ul>
Ecosystem	Pond (5-PS3-1)  LEAP Practice Test Standalone Items:	LEAP Practice Test Sets:  ■ Item Set: Rafflesia (5-LS1-1 and 5-LS2-1)
Restoration	<ul> <li>23 &amp; 38 (5-PS3-1)</li> <li>13 &amp; 33 (5-LS1-1)</li> <li>15 (5-LS2-1)</li> </ul>	<ul> <li>LEAP Assessment Guide Sets:</li> <li>Item Set: Cordgrass Ecosystem (5-LS1-1 and 5-LS2-1)</li> <li>Task Set: Landslides (5-PS2-1 and 5-ESS2-1)**</li> </ul>

Unit	Discrete Items	Item Sets and Practice Test Items
Unit 4 continued	LEAP Assessment Guide Items:  ● Forest Ecosystem (5-PS3-1)	LEAP Science Released Items:  ■ N/A
	LEAP Science Released Items:  ■ N/A	

<sup>\*</sup>Performance expectation partially assessed
\*\*Contains performance expectations from a previous unit