



Louisiana Believes

Louisiana Guide to Implementing PhD Science: Grade 3

To assist teachers with the implementation of the third Grade PhD Science curriculum, this document provides guidance regarding how PhD Science modules correlate with the Louisiana Student Standards for Science (LSSS). The PhD Science curriculum provides ample instructional guidance for teachers. This Louisiana Guide for Implementing PhD Science goes a step further to point out places in which teachers may need to make strategic decisions considering their unique context.

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 Module ¹

	Module 1 Weather and Climate	Module 2 Survival	Module 3 Traits	Module 4 Forces and Motion
Approximate Time Frame	29 days	28 days	28 days	30 days
Anchor Phenomenon	1900 Galveston Hurricane	Butterfly Survival	Individual Variation in Humpback Whales	Motion in Outer Space
Essential Question	How can we prevent a storm from becoming a disaster?	How do butterflies survive over time in a changing environment?	What makes an individual humpback whale unique?	Why do objects appear to move differently in space than on Earth?
Instructional Texts	<i>Hurricanes!</i> <i>Tornadoes!</i> <i>Marvelous Mattie: How Margaret E. Knight Became an Inventor</i>	<i>A Butterfly is Patient</i> <i>Amos & Boris</i>	<i>Here come the Humpbacks</i>	<i>Moon Shot</i>
Standards	3-ESS2-1 3-ESS2-2 3-ESS3-1	3-LS2-1 3-LS4-1 3-LS4-3 3-LS4-4	3-LS1-1 3-LS3-1 3-LS3-2 3-LS4-2	3-PS2-1 3-PS2-2 3-PS2-3 3-PS2-4

¹ Adapted from guidance developed by PhD Science

Concept Focus by Module¹

Module	Concept Focus Questions
Module 1 Weather and Climate	Concept 1: How do we describe weather? Concept 2: How do people know what weather to expect? Concept 3: How can we plan for severe weather? Application of Concept - Engineering Challenge: How can people design better solutions to reduce the impact of weather hazards?
Module 2 Survival	Concept 1: What do fossils reveal about the past? Concept 2: How do organisms get what they need to survive? Concept 3: What happens to organisms when the environment changes? Application of Concepts - Engineering Challenge: How can we help monarchs survive in a changing environment?
Module 3 Traits	Concept 1: How can we identify individuals? Concept 2: How do individuals change over time? Science Challenge: How does water in the plant's environment influence the plant's traits? Concept 3: How do individuals get their traits? Concept 4: How do individual's traits affect their lives? Application of Concepts
Module 4 Forces and Motion	Concept 1: How can we describe and predict an object's motion? Concept 2: What can cause the motion of an object to change? Concept 3: How can an object move without being touched? Application of Concepts - Engineering Challenge: How can we use magnets to design a solution to help astronauts in space?

¹Adapted from guidance developed by PhD Science

LDOE Formative Assessment Resources

Created by Louisiana educators to support formative assessment in the classroom, the Department has released a library of discrete items and item sets correlated to the Louisiana Student Standards for Science. These items, along with LEAP 2025 Practice Test Items, may be used in conjunction with guidance from high-quality curriculum as opportunities for students to demonstrate what they have learned. LDOE Formative Assessment Resources can be found on the [K-12 Science Planning](#) webpage.

Module	Discrete Items	Item Sets and Practice Test Items
Module 1 Weather and Climate	Climates (3-ESS2-2) LA_BOS (3-ESS2-2) Gr3 Tornadoes (3-ESS3-1) Levees (3-ESS3-1)	Practice Item Set Winter Storms (3-ESS2-1 and 3-ESS3-1)
Module 2 Survival	Gulf Birds (3-LS4-3) Red Snapper (3-LS4-4) Tortoises (3-LS4-4) Penguins (3-LS2-1) Lions & Tigers (3-LS2-1) Fossils (3-LS4-1) Ashfall Fossil bed (3-LS4-1) Shark Tooth (3-LS4-1)	<i>Items Coming Soon</i>
Module 3 Traits	Moth (3-LS4-2) Black Bears (3-LS1-1) Butterfly Cycle (3-LS1-1)	Practice Item Set Amazon River Dolphins (3-LS2-1 and 3-LS1-1) Practice Item Set Rattlesnake (3-LS3-1 and 3-LS4-2) Practice Item Set Plants and Heat (3-LS3-2 and 3-ESS2-1) Pythons (3-LS3-1 and 3-LS3-2)
Module 4 Forces and Motion	Cradle (3-PS2-1) Volleyball (3-PS2-1) Skateboard (3-PS2-1) Ball Type (3-PS2-2)	Practice Item Set Seesaws (3-PS2-2 and 3-PS2-2) Oil Spill (3-PS2-2 and 3-PS2-3) Bowling (3-PS2-1, 3-PS2-2)