



Louisiana Believes

Louisiana Guide to Piloting OpenSciEd: Physics

This document provides guidance to assist Biology teachers with the piloting of OpenSciEd units. 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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Overview of OpenSciEd

OpenSciEd is an effort among science educators, curriculum developers, teachers and philanthropic foundations to improve the supply of and demand for high-quality K-12 science instructional materials by producing open-sourced, freely available instructional materials designed for college and career-ready science standards. OpenSciEd works with classroom educators, experienced science curriculum developers, individual school districts, education non-profits, and the science education community to create and pilot robust, research-based, open-source science instructional materials.

Field Testing and Release of Units

Ten partner states volunteered to join this effort including: California, Iowa, Louisiana, Massachusetts, Michigan, New Mexico, New Jersey, Oklahoma, Rhode Island and Washington. After the initial development of the OpenSciEd units, the unit prototypes or **field test units** undergo rigorous external review and robust field-testing in participating classrooms across partner states. The field test units are then revised based on the feedback and data collected and submitted to NextGenScience Peer Review Panel before being made freely and openly available to the public upon earning a quality rating. Field test units for Biology, Chemistry and Physics are available for piloting by Louisiana systems and the revised units will be released on a rolling basis. The revised public units for each course in the [three-course sequence](#) are available now.

Unit Design & Sample Scope and Sequence

The units in the OpenSciEd Sample Scope and Sequence include bundles of performance expectations that are built around an anchor phenomenon. 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 is not recommended and should be approached with caution and careful consideration.

Contact

Systems interested in piloting should reach out to STEM@la.gov for access to materials and direct support. For questions or requests for additional information on the OpenSciEd initiative and/or materials, contact info@openscienced.org.

2023-2024 Sample Scope and Sequence

This sequence is recommended for schools and systems who want to implement all of the OpenSciEd units recommended in Louisiana for Physics regardless of field test or revised status. Note that decisions will need to be made based on kit purchase and availability along with unit release schedules. Please review information from [ECA](#) regarding kits.

	P.1 Energy Flow from Earth's Systems	P.2 Energy, Forces, and Earth's Crust	P.3 Collisions & Momentum	P.4 Meteors, Orbits, & Gravity	P.5 Electromagnetic Radiation	P.6 Stars & the Big Bang
Number of Lessons <i>*lessons vary in length from 1-5 class periods</i>	11	TBD approximately 13 lessons	TBD approximately 13 lessons	TBD approximately 14 lessons	TBD approximately 13 lessons	TBD approximately 7 lessons
Anchor Phenomenon Question	How can we design more reliable systems to meet our communities' energy needs?	How do forces in Earth's interior determine what will happen to the surface we see?	What can we do to make driving safer for everyone?	How have collisions with objects from space changed Earth in the past, and how could they affect our future?	How do we use radiation in our lives, and is it safe for humans?	Why do stars shine and will they shine forever?
Louisiana Students Standards for Science²	HS-PS2-5* HS-PS3-5† HS-PS3-2† HS-PS3-3 HS-PS3-1† HS-ESS3-2†	HS-PS2-1* HS-PS1-8+ HS-ESS1-5 HS-ESS2-1+ HS-ESS2-3	HS-PS2-1* HS-PS2-2 HS-PS2-3	HS-PS2-4+ HS-PS3-1+ HS-PS3-2+ HS-ESS1-4 HS-ESS1-6	HS-PS2-5 HS-PS4-1 HS-PS4-3	HS-PS1-8+ HS-ESS1-1 HS-ESS1-2+ HS-ESS1-3
Additional Information	Complete Unit available now	Field Test Unit **Contact STEM@la.gov for access** Complete Unit Fall 2023	Field Test Unit **Contact STEM@la.gov for access** Complete Unit Winter 2023/2024	Field Test Unit **Contact STEM@la.gov for access** Complete Unit Spring 2024	Complete Unit available now	Field Test Unit **Contact STEM@la.gov for access** Complete Unit Summer 2024

HS-PS3-4 is addressed in the Chemistry course

*The performance expectation is addressed across multiple units. +The performance expectation is addressed across the three-course sequence (Biology, chemistry, Physics).

²Performance expectations which are unique to the Next Generation Science Standards for Life Science have not been included in this table.