



Teaching and Learning

# Louisiana Guide to Piloting OpenSciEd: Physics

---

This document provides guidance to assist Physics teachers with the piloting of OpenSciEd Physics 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](mailto:STEM@la.gov) so that we may use your input when updating this guide.

Updated July 18, 2024

# Table of Contents

[Overview of OpenSciEd](#)

P3

[Scope and Sequence](#)

P4

## 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. All revised units are available for Physics. Chemistry and Physics revised units will be released on a [rolling basis](#) until the entire [three-course sequence](#) is published by Fall of 2024.

### Unit Design and 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](mailto:STEM@la.gov) for direct support. For questions or requests for additional information on the OpenSciEd initiative and/or materials, contact [info@openscienced.org](mailto:info@openscienced.org).

## 2024-2025 Sample Scope and Sequence

This sequence is recommended for schools and systems who want to implement all 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
<b>Number of Lessons</b> <i>*lessons vary in length from 1-5 class periods</i>	11 lessons	13 lessons	15 lessons	15 lessons	13 lessons	7 lessons
<b>Anchor Phenomenon Question</b>	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?
<b>Louisiana Students Standards for Science<sup>2</sup></b>	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
<b>Unit Resources</b>	<a href="#">Unit Materials</a>	<a href="#">Unit Materials</a>	<a href="#">Unit Materials</a>	<a href="#">Unit Materials</a>	<a href="#">Unit Materials</a>	<a href="#">Unit Materials</a>

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