

Louisiana Believes

Louisiana Guide to Piloting OpenSciEd: Grade 8

This document provides guidance to assist eighth-grade teachers with the field-testing 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 classroomsupporttoolbox@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-profit Achieve, 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. Seven Louisiana districts are involved in field-testing the units. The field test units are revised based on the feedback and data collected. The revised or **complete** units are submitted to Achieve’s EQuIP Peer Review Panel and made freely and openly available to the public upon earning a quality rating. The OpenSciEd release schedule provides for **complete units** to release three at a time beginning August 2019 with the entire middle school program (18 units total) fully completed and released in early 2022.

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. The scope and sequence integrates the OpenSciEd curriculum and the [Grade 8 Louisiana Sample Scope and Sequence](#). The scope and sequence does not illustrate the only appropriate sequence to teach the units. The units can be organized into different learning sequences, and the performance expectations can be bundled around different phenomena.

The OpenSciEd units may include performance expectations from previous or 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 is not recommended and should be approached with caution and careful consideration.

Contact

For questions or requests for additional information on the OpenSciEd initiative and/or materials, contact info@opensci.ed.org.

Sample Scope and Sequence

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7
	Energy and Matter	Plate Tectonics & Rock Cycling OpenSciEd Unit 6.4	Natural Hazards OpenSciEd 6.5	Energy in Chemical Reactions OpenSciEd 7.2	Natural Resources & Human Impact OpenSciEd 7.6	Genetics OpenSciEd Unit 8.5	Natural Selection & Common Ancestry OpenSciEd 8.6
Anchor Phenomenon	People in one small area continued to receive power after a catastrophic earthquake in Japan.	Mt. Everest is steadily moving to the northeast every year and is getting taller.	An earthquake and subsequent tsunami cause major loss of life and property in Japan.	Meals Ready-to-Eat (MREs) allow people to heat up food by just adding water	TBD	Some organisms have more muscles than others.	TBD
Standards	8-PS1-1 8-PS1-3 8-PS3-3 8-PS3-5	8-ESS1-4 8-ESS2-1 8-ESS2-2 8-ESS2-3 8-LS4-1*	8-ESS3-2	8-PS1-6	8-ESS3-1 8-ESS3-3* 6-ESS3-4 7-ESS3-5	8-LS1-5* 8-LS3-1 7-LS3-2 7-LS4-5	8-LS1-4 8-LS4-1* 8-LS4-2 8-LS4-3 8-LS4-6 7-LS4-4
Resource	Louisiana Sample Scope and Sequence	Field Test Unit	Field Test Unit available now	Field Test Unit available now	Field Test Unit Coming Spring 2021	Field Test Unit	Field Test Unit Available Spring 2021
Additional Information		<i>Complete Unit Available Summer 2021</i>	<i>Complete Unit Available Fall 2021</i>	<i>Complete Unit Available Late Summer 2021</i>	<i>Complete Unit Available Winter 2022</i>	<i>Complete Unit Available Late Summer 2021</i>	<i>Complete Unit Available Winter 2022</i>

† Unit 1 performance expectations are not addressed by the Grade 8 OpenSciEd units. The performance expectations can be addressed by incorporating the Grade 8 [Louisiana Sample Scope and Sequence](#) units as needed. *The performance expectation is partially addressed using the identified phenomenon and is addressed in multiple units.

OpenSciEd Units (Orange); Louisiana Sample Scope and Sequence Unit (Green)

Alignment to EAGLE 2.0

The [EAGLE 2.0 formative assessment items](#) can be used in conjunction with OpenSciEd’s assessment guidance to enhance teaching and learning. [A Teacher’s Guide to LEAP 360](#) provides an overview of the online tool and information on how to access the science EAGLE assessment items. The assessment items in this guidance can be used immediately following a unit of study to help measure student progress.

Grade 8	EAGLE Discrete Items	EAGLE and Practice Test Item Sets
Energy and Matter	Marbles (8-PS1-1) 1014720 (8-PS1-3) Potato Experiment (8-PS3-3) Sailboat (8-PS3-5)	Solar Cooker (8-PS3-3, 8-PS3-5) Nitinol (8-PS1-3, 8-PS1-1)
Plate Tectonics & Rock Cycling OpenSciEd Unit 6.4	SARocks (8-ESS2-1) Mushroom Rock (8-ESS2-2)	Planet_Earth (8-ESS2-3)
Natural Hazards OpenSciEd 6.5	Tornado_8 (8-ESS3-2)	NCSlides (8-ESS3-2, 8-ESS2-2)
Energy in Chemical Reactions OpenSciEd 7.2	Items Coming Soon	Items Coming Soon
Natural Resources & Human Impact OpenSciEd 7.6	Pollutants (8-ESS3-3)	Tsunamis and the Louisiana Coast (8-ESS3-2, 8-ESS2-1) Opal (8-ESS3-1, 8-ESS3-3)
Genetics OpenSciEd Unit 8.5	Daisies (8-LS1-5) Hummingbird (8-LS4-6) Miles Davis (8-LS3-1)	Surviving in Desert Landscapes (8-LS1-5, 8-LS1-4) Glowing Jellyfish (8-LS3-1, 8-LS4-6)
Natural Selection & Common Ancestry OpenSciEd 8.6	Embryo Development (8-LS4-2)	Items Coming Soon

Distance Learning Support

To support school systems, schools, and teachers in ensuring continuous learning in science, the Department will release guidance for implementing OpenSciEd in a hybrid or distance learning setting for every available OpenSciEd Unit.

Distance learning plans for each unit will contain the following:

- Links to OpenSciEd remote learning resources
- Unit guidance
- Detailed lesson-by-lesson guidance, including activities and slides for virtual classes
- Printable lesson documents to send home with students

The resources available now are linked below:

OpenSciEd Distance Learning Support Webinar [Slide Deck](#) and [Video](#)

[Release Schedule for Science Distance Learning](#) – Grade 8 Unit Release Schedule shown below

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7
Energy and Matter	Plate Tectonics & Rock Cycling OpenSciEd Unit 6.4	Natural Hazards OpenSciEd 6.5	Energy in Chemical Reactions OpenSciEd 7.2	Natural Resources & Human Impact OpenSciEd 7.6	Genetics OpenSciEd Unit 8.5	Natural Selection & Common Ancestry OpenSciEd 8.6
Scope and Sequence Unit <i>(no plans to release guidance at this time)</i>	Available Now	Available Now	October	Contingent on release of Field Test Unit (Spring 2021)	February	Contingent on release of Field Test Unit