Louisiana Believes

Louisiana Guide to Piloting OpenSciEd: Grade 7

This document provides guidance to assist seventh-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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DEPARTMENT of EDUCATION
Louisiana Believes

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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 7 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@openscied.org.

Sample Scope and Sequence

	Unit 1 Thermal Energy OpenSciEd Unit 6.2	Unit 2 Weather, Climate, and Water Cycling OpenSciEd Unit 6.3	Unit 3 Chemical Reactions & Matter Transformations OpenSciEd Unit 7.1	Unit 4 Metabolic Reactions OpenSciEd Unit 7.3	Unit 5 Matter Cycling & Photosynthesis OpenSciEd Unit 7.4	Unit 6 Ecosystem Dynamics OpenSciEd Unit 7.5	Unit 7 Genetics & Inheritance of Traits
Anchor Phenomenon	Some cups are better than others at keeping drinks cold.	Ice can fall from the sky on a warm summer day.	Solid bath bombs begin to break apart when added to water. After a few minutes, no solid material is left.	Health symptoms may sometimes be related to the foods we eat.	Humans get food from eating, but plants get food from somewhere, too.	The future of orangutans are in peril and the rampant purchasing of chocolate may be the cause.	Four out of seven children in the Fugate family have blue skin and fingernails.
Standards	7-PS1-4* 7-PS3-4 8-PS3-3 8-PS3-5 6-PS4-2*	7-ESS2-4 7-ESS2-5 7-ESS2-6 7-PS1-4*	7-PS1-2 7-PS1-5 6-PS1-1	7-LS1-3* 7-LS1-7 8-LS1-5*	7-LS1-6 6-LS2-3 8-PS1-3	7-LS2-4 7-LS2-5 6-LS2-1 6-LS2-2	7-LS3-2 7-LS4-4 7-LS4-5
Resource	*Complete Unit*	*Complete Unit*	*Complete Unit*	*Complete Unit*	*Complete Unit*	*Field Test Unit*	*Louisiana Sample Scope and Sequence Unit*
Additional Information	*Complete Unit Available Now*	*Complete Unit Available Now*	*Complete Unit Available Now*	*Complete Unit Available Now*	*Complete Unit Available Now*	*Complete Unit Available Fall 2021*	

† 7-ESS3-5 is not addressed by the Grade 7 OpenSciEd units. The performance expectation can be addressed by incorporating the Grade 7 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 Units (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 that are included in this guidance can be used immediately following a unit of study to help measure student progress.

Grade 7	EAGLE Discrete Items	EAGLE and Practice Test Item Sets
Thermal Energy OpenSciEd Unit 6.2	Eric_BrassBall (7-PS1-4) Carbon Dioxide (7-PS1-4) Kayla (7-PS3-4)	Melting Icebergs (7-PS1-4, 7-PS3-4) Spider Plants (7-PS1-4, 7-PS3-4)
Weather, Climate, and Water Cycling OpenSciEd Unit 6.3	Water Cycle (7-MS-ESS2-4)	Arizona Monsoon (7-ESS2-5, 7-ESS2-6)
Chemical Reactions & Matter Transformations OpenSciEd Unit 7.1	Substances (7-MS-PS1-2) Kiara (7-MS-PS1-2)	Pesticides (7-MS-PS1-5) Volcanic Carbon (7-ESS3-5, 7-PS1-5)
Metabolic Reactions OpenSciEd Unit 7.3	Items Coming Soon	Items Coming Soon
Matter Cycling & Photosynthesis OpenSciEd Unit 7.4	Items Coming Soon	Louisiana Swamplands (7-LS1-7, 7-LS1-6)
Ecosystem Dynamics OpenSciEd Unit 7.5	Items Coming Soon	Zebra Mussels (7-LS2-4, 7-LS2-5) Dead Zone (7-LS1-7, 7-LS2-5)
Genetics and Inheritance of Traits	1014621 (7-LS3-2) Siblings (7-LS3-2) 1014623 (7-LS3-2) Amoebas (7-LS3-2) 1014619 (7-LS4-5)	Feral Chickens (7-LS4-4) Anoles (7-LS4-4) Coral (7-LS2-4, 7-LS4-4)

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 – This document contains links to distance learning support for each unit
- OpenSciEd Distance Learning Support Webinar Slide Deck and Video
- Release Schedule for Science Distance Learning