Open Education Resources

September 1, 2019

Background of OER

The General Appropriations Act (GAA), Article III, Rider 70, 85th Texas Legislature, 2017, requires the Commissioner of Education to set aside $10,000,000 from the instructional materials fund (IMF) in each fiscal year of the biennium to develop open-source instructional materials. The rider specifies that the materials are to be developed through a request for proposals (RFP) process and in alignment with the requirements of the Texas Education Code (TEC), §31.071.

This report satisfies the reporting requirements established by the rider:

> The Commissioner shall annually submit a report by September 1 to the Governor, the Lieutenant Governor, the Speaker of the House, the Legislative Budget Board, and the presiding officers of the standing committees of the legislature with primary jurisdiction over public education. The report shall include information on the number and type of open education resource instructional materials developed, use of those materials by school districts and open enrollment charter schools, and plans for assessing the effectiveness of those materials.

> -GAA, Article III, Rider 57, 84th Texas Legislature, 2015

Overview (2 of 2)

How are Open Education Resources defined in statute?

Sec. 31.002 (1-a) "Open education resource instructional material" means **teaching, learning, and research resources** that reside in the public domain or have been released under an intellectual property license that **allows for free use, reuse, modification, and sharing with others**, including full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques **used to support access to knowledge**.

What are agency requirements when developing Open Education Resources?

Sec. 31.071. (a-e) - (Note: text below is summarized)

- The commissioner may purchase state-developed OER materials through a competitive process,
- Multiple versions of materials may be purchased for a subject or grade level,
- State-developed OER materials must be irrevocably owned by the state with unlimited authority to modify, delete, combine, or add content to the instructional material after purchase (Section 31.0711).

Recap of OER materials procured in 2017

In 2017, TEA awarded two contracts to create 11 sets of instructional materials for nine high school courses. These contracts were awarded to **Study Edge** and **OpenStax** and these state-developed, open-source materials are provided free of charge through the Texas Gateway. Study Edge finished products became available in July 2017 with Study Edge Chemistry.

All OpenStax textbooks and related products were completed in September 2017. Products created by OpenStax are organized into units and chapters and can be used like traditional textbooks as the entire syllabus for each course. They can also be used to provide supplemental instruction for specific concepts. These materials are now loaded on the Texas Gateway. OpenStax developed materials for seven high school courses:

- Advanced Placement® (AP) Biology
- AP® Macroeconomics
- AP® Microeconomics
- Physics
- AP® Physics 1
- AP® Physics 2
- Statistics

Study Edge Materials Usage in 2018 - 2019

The usage data for the Study Edge materials in 2018 -2019, pulled from the Gateway analytics, is displayed in the table below.

Study Edge OER Book Usage Comparison Data from Texas Gateway

Comparison Date Ranges 2018-2019

Book	Visits 2018	Unique Visitors 2018	Total Views 2018	Total Views/Unique Users 2018
Chemistry	1,111	535	2,129	3.97
Physics	551	331	809	2.44
Precalculus	2,712	1,433	3,700	2.58
Statistics	1,361	523	2,088	3.99

OpenStax Materials Usage in 2018 - 2019

The usage data for the OpenStax materials in 2018 -2019, pulled from the Gateway analytics, is displayed in the table below.

OpenStax OER Book Usage Comparison Data from Texas Gateway

Comparison Date Ranges 2018-2019

Book	Visits 2018	Unique Visitors 2018	Total Views 2018	Total Views/Unique Users 2018
AP Macroeconomics	479	409	899	2.19
AP Microeconomics	203	175	282	1.61
Physics	2,887	1,760	4,696	2.66
AP Physics I Algebra based	1,867	1,417	3,007	2.12
Physics with Algebra II	678	522	968	1.85
Statistics	1,800	1,271	2,890	2.27
AP Macroeconomics	479	409	899	2.19
AP Microeconomics	203	175	282	1.61

Timeline for new OER RFP to procure materials in additional subject areas and grade bands

Date	Action
April 2018	TEA releases RFP for OER materials for K-12 ELAR courses, per rider 57. RFP 701-18-050 is posted on ESBD.com.
June 2018	RFP 701-18-050 closes with two bids. Upon review, neither bid meets the minimum requirements clearly stated in the RFP.
October 2018	TEA rejects both bids and cancels the RFP without an award given. Neither bid meets the minimum requirements outlined in the RFP. TEA begins drafting two new solicitations.
January 2019	TEA issues two new RFPs: 1) Open Education Resources: Materials and Review – 701-19-052, multiple grade and subjects 2) Open Education Resources: Interactive Tools – 701-19-034, multiple grades and subjects
February 2019	RFP 701-19-034 closed on February 12 and RFP 701-19-052 closes on February 21.

The 2018 RFP was updated to procure additional OER materials based on educator feedback. The RFP clearly articulates, that "at a minimum, all proposals must include the following" before listing key elements. Upon first release of the new RFP, neither of the submitted proposals met minimum standards or expectations so no award was given. This led to the release of two new RFPs, resulting in two awarded contracts, both of which were signed in early May: Interactive Tools with Zia Learning (signed May 7th) and Materials and Review with Region 13 (signed May 14th).

Key Considerations for Revised RFPs

TEA will support the development of high quality OER instructional materials, by procuring existing open source materials as the basis for Texas-specific materials through the **Materials and Review RFP**. We are particularly looking to procure materials that will be reviewed and edited by Texas districts, schools, and teachers prior to statewide release. **This contract was awarded to Region 13.**

The **Interactive Tools RFP** went out separately to attract vendors with a more advanced skill set for creating high quality supplemental materials. **This contract was awarded to Zia Learning.**

Continuing the development of high quality OER

In 2019-2020, TEA plans to support the development of high quality OER instructional materials using existing open source content as the basis for Texas-specific curricular resources for the following grades and subjects:

- English Language Arts and Reading, kindergarten–grade 8
- English I, II, III, and IV
- Spanish Language Arts and Reading, kindergarten-grade 6

Priority will be given to materials that already exist in OER and are Creative Commons or that are completed materials that TEA purchases through a forthcoming contract. Additionally, all OER products must score high on the Texas Resource Review, TEA's quality review process.

Key Considerations:
- Provides a cost-effective strategy that allows for more district flexibility
- Incorporates evidence-based strategies for strong literacy instruction
- Ensures alignment to TEKS
- Allows Texas teachers to provide input and develop materials
- Allows Texas teachers to easily modify the curriculum to their local context

Projected OER Timelines

Spring 2019: Award both OER contracts to qualified vendors; immediately begin work upon award of contracts

Fall 2019: Continued review by Texas teachers for alignment, rigor, efficacy, and usability

Spring 2020: 3-8 ELAR materials freely available for district adoption
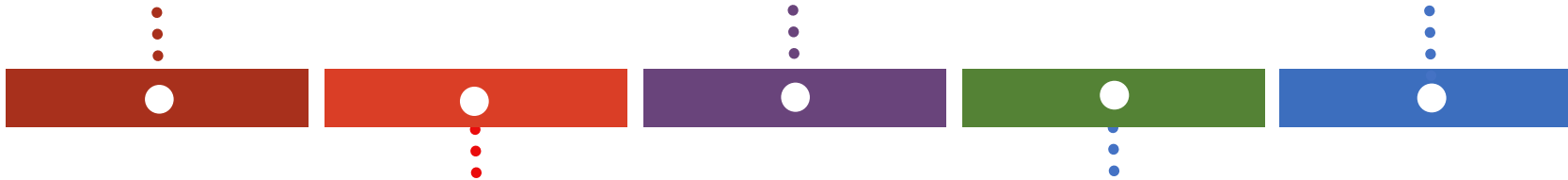
Summer 2019: Summer 2019: Grades 3-8 materials purchased and completed initial review stages; corresponding supplemental materials created

Winter 2020: 3-8 ELAR OER materials go to the State Board for adoption

The OER Development Process

OER Development: High-Quality Curriculum is a Key Lever for Effective Schools

The agency's **Effective Schools Framework** identifies 5 priority levers in our vision for effective schools, the 4th of which is high-quality curriculum where campuses have access to **"a standards-aligned guaranteed and viable curriculum (GVC) and scope and sequence"** (ESF Prioritized Level 4 High-Quality Curriculum).

Prioritized Lever 4
HIGH-QUALITY CURRICULUM

All students have access to a TEKS-aligned, guaranteed and viable curriculum, assessments, and resources to engage in learning at appropriate levels of rigor.

OER Development: Components of High-Quality Curriculum

Research1 shows that high-quality curriculum is comprised of key components that provide a curriculum framework. This framework, leading to high-quality curriculum . . .

…is

- ✓ Outcomes driven (e.g. leads to mastery of TEKS as measured by STAAR)
- ✓ Backwards designed from an assessment (e.g. STAAR, unit exam, exit ticket)
- ✓ Aligned vertically and horizontally to ensure mastery at the end of a grade-band or academy level (ES, MS, HS)

…is NOT

- X Process-driven (e.g. based first on independent lessons, activities or texts)
- X Stand-alone curricular materials
- X Disconnected from the other lessons aligned to the grade-level TEKS and unit materials

1) Effective Schools Framework (ESF), Texas Education Agency, texasesf.org 2) The Association of Curriculum and Development (ASCD), ASCD.org 3) Grant Wiggins and Jay McTighe's Understanding by Design

OER Development: Evaluation of High-Quality Curriculum

The agency's Texas Resource Review rubrics (formerly known as the Instructional Materials Portal), which are leveraged by OER evaluators, make programmatic assumptions about curricular products and assumes that materials are constructed in such a way to **develop content and skills as the year progresses**.

ELAR Quality Rubric – Grades 3-8

Reviewers will use a quality rubric based on the seven sections below to evaluate instructional materials for quality. Each section is made up of a series of indicators for which reviewers will find evidence in the material they are evaluating.

II. Quality of Text
What will students read, see, and hear?

III. Response to Text
How will students express their understanding of complex texts?

IV. Foundational Skills (only Grades 3-5)
Do the materials build the skills students need to read and write independently?(Elementary Grades)

Section II–IV: Content and Instructional Concepts

I. TEKS & ELPS Alignment
How well do the materials align to Texas' unique standards and context?

Section I: SBOE Process

V. Usability
How user-friendly are materials to support strong implementation?

VI. Support All Learners
How well do materials help teachers meet the learning needs of all children?

Section V–VI: Educator Support

VIIa. Cost
How affordable are materials for districts?

VIIb. Professional Learning
What training is offered to support quality implementation for educators and at what cost?

VIIc. Technology
What information is needed to ensure materials can integrate into districts' existing systems?

VIId. Additional Language
Do the materials offer options for instruction in other languages?

Section VII: Additional Information

OER Development: Defining the OER Curricular Framework to Drive High-Quality Curriculum Acquisition and Development (1 of 2)

To ensure that we are acquiring and developing the highest quality materials, the agency must define the framework that will drive how the OER curricular resources are acquired, curated, created and edited to ensure that our materials are truly "guaranteed and viable" (ESF) in order to best drive student outcomes.

To ensure that the OERs are guaranteed and viable curriculum (GVC) that drives student outcomes, our curricular materials must be…

- ✓ outcomes driven
- ✓ backwards mapped
- ✓ vertically and horizontally aligned
- ✓ flexible within a year-long outline (or scope and sequence)
- ✓ intentionally acquired, curated, and/or developed in order to support the grade-level year-long outline (or scope and sequence)
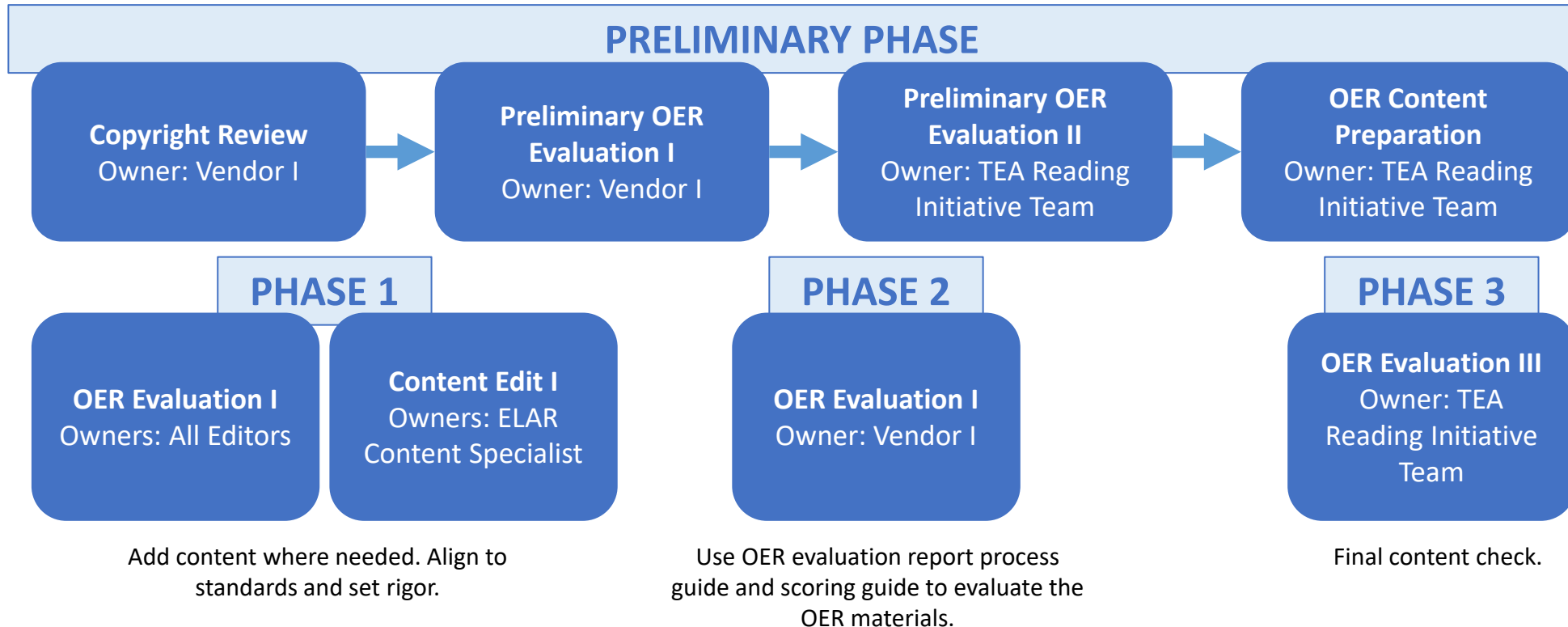
The OER Development Process: Making Strategic Decisions Around a Pilot

As we continue to build out the OER development process, the OER team is planning for a unit-level pilot. Based on our current state as well as on team capacity, we believe we can conduct the pilot in the spring of 2020.

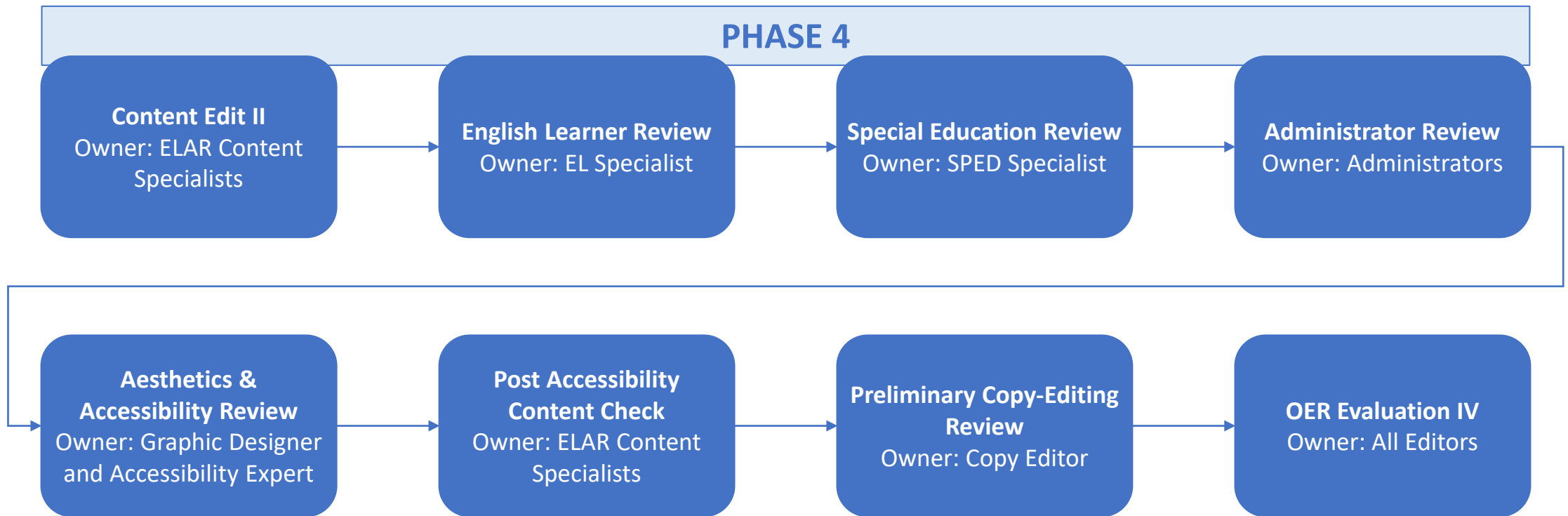| Project Focus	Summer/ Fall 2019	Spring/ Summer 2020	Fall 2020	Spring 2021
Develop	Content Bundle #1 (e.g. 3rd - 5th)	Content Bundle #2 (e.g. PreK-2nd)	Content Bundle #3 (e.g. Eng I-IV)	--
Pilot	--	Content Bundle #1 (e.g. 3rd - 5th)	--	--
Full Implementation	--	--	Content Bundle # 1-2 (e.g. PreK-2nd)	Content Bundle #3 (e.g. Eng I-IV)

OER Content Development: Content Evaluation & Preparation

Once we've acquired content, Region 13 and TEA will complete the preliminary phase, which includes evaluating and preparing the content with the Texas Resource Review rubrics, prior to submitting to editors.

PRELIMINARY PHASE

Copyright Review
Owner: Vendor I

→

Preliminary OER Evaluation I
Owner: Vendor I

→

Preliminary OER Evaluation II
Owner: TEA Reading Initiative Team

→

OER Content Preparation
Owner: TEA Reading Initiative Team

PHASE 1

OER Evaluation I
Owners: All Editors

Content Edit I
Owners: ELAR Content Specialist

Add content where needed. Align to standards and set rigor.

PHASE 2

OER Evaluation I
Owner: Vendor I

Use OER evaluation report process guide and scoring guide to evaluate the OER materials.

PHASE 3

OER Evaluation III
Owner: TEA Reading Initiative Team
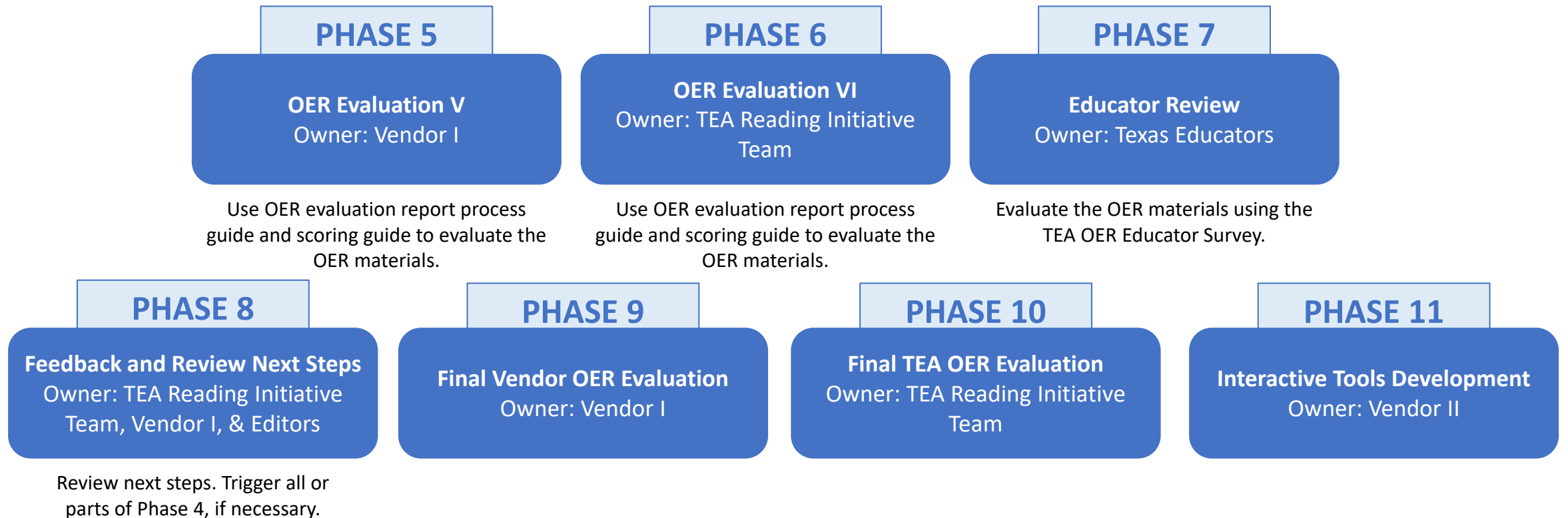
Final content check.

OER Content Development: Editor Review

Once content has completed its initial reviews and undergone revisions, content will go to the specialized editor team for further refinement and evaluation.

PHASE 4

Content Edit II
Owner: ELAR Content Specialists

→

English Learner Review
Owner: EL Specialist

→

Special Education Review
Owner: SPED Specialist

→

Administrator Review
Owner: Administrators

Aesthetics & Accessibility Review
Owner: Graphic Designer and Accessibility Expert

→

Post Accessibility Content Check
Owner: ELAR Content Specialists

→

Preliminary Copy-Editing Review
Owner: Copy Editor

→

OER Evaluation IV
Owner: All Editors

OER Content Development: Content Evaluation and Review (Post-Edits)

Once the content has been edited, the content will be evaluated to determine its suitability for educator review. Those educators will provide feedback, which will then be incorporated into final edits. The final version will be evaluated one last time before creating aligned interactive tools.

PHASE 5
OER Evaluation V
Owner: Vendor I

Use OER evaluation report process guide and scoring guide to evaluate the OER materials.

PHASE 6
OER Evaluation VI
Owner: TEA Reading Initiative Team

Use OER evaluation report process guide and scoring guide to evaluate the OER materials.

PHASE 7
Educator Review
Owner: Texas Educators

Evaluate the OER materials using the TEA OER Educator Survey.

PHASE 8
Feedback and Review Next Steps
Owner: TEA Reading Initiative Team, Vendor I, & Editors

Review next steps. Trigger all or parts of Phase 4, if necessary.

PHASE 9
Final Vendor OER Evaluation
Owner: Vendor I

PHASE 10
Final TEA OER Evaluation
Owner: TEA Reading Initiative Team

PHASE 11
Interactive Tools Development
Owner: Vendor II

OER Development: Recruiting Texas Editors

To ensure an intentional approach to acquiring, curating, and developing grade-level materials that follow a year-long progression (or scope and sequence), we would like to recruit…

- ✓ Texas educators who possess deep content knowledge and experience with teaching and assessing specific grade-level/content-area TEKS with a track record for strong student achievement and academic growth
- ✓ Curriculum designers and/or specialists that work across Texas schools

OER Development: Recruiting Texas Educators

KEY ROLE & RESPONSIBILITIES:
- Review and evaluate the quality of curated resources.
- Edit curricular resources to meet the grade-level and rigor expectations for subject-area content in the state of Texas, as determined by grade level TEKS.

BENEFITS:
Salary
- Teacher will be compensated for their review and editing work

Other Benefits
- Free, high-quality intensive training and ongoing professional development for which they will earn continuing professional education (CPE) credit.

EDITOR COMMITMENTS:
- Team Meetings
- Individual and/or team review of materials
- Attend a professional development training to kick off the review and editing process (in-person or virtual) and any necessary subsequent trainings to ensure quality control of the resources as well as the editing process. Attendance is required.

**Evaluate Prototypes of Interactive Tools**
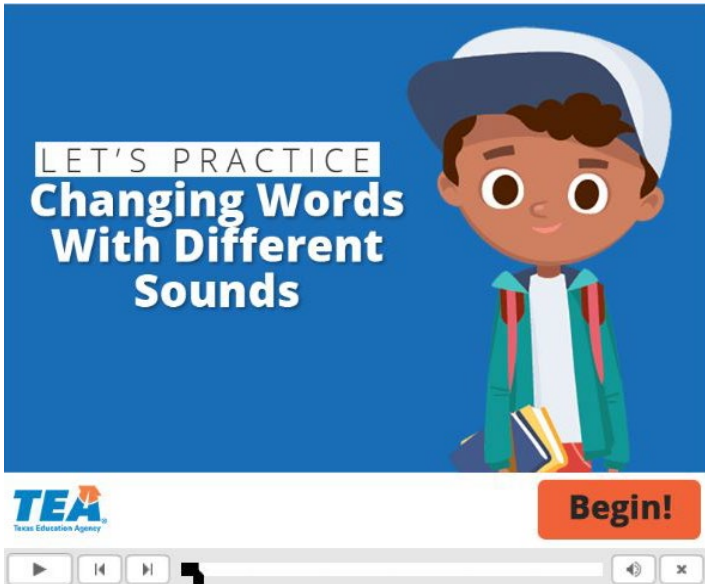
What are the OER Interactive Tools?

The open education resource interactive tools project involves the development of high quality, accessible digital learning resources, such as formative assessments (Quizlets), video lessons, and family companion videos.
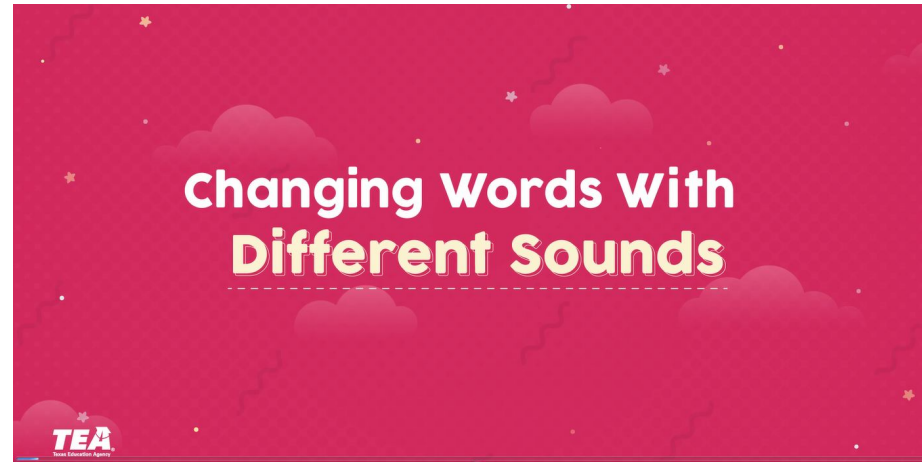

PHASE 11

Interactive Tools Development

Owner: Vendor II

OER Interactive Tool Prototypes
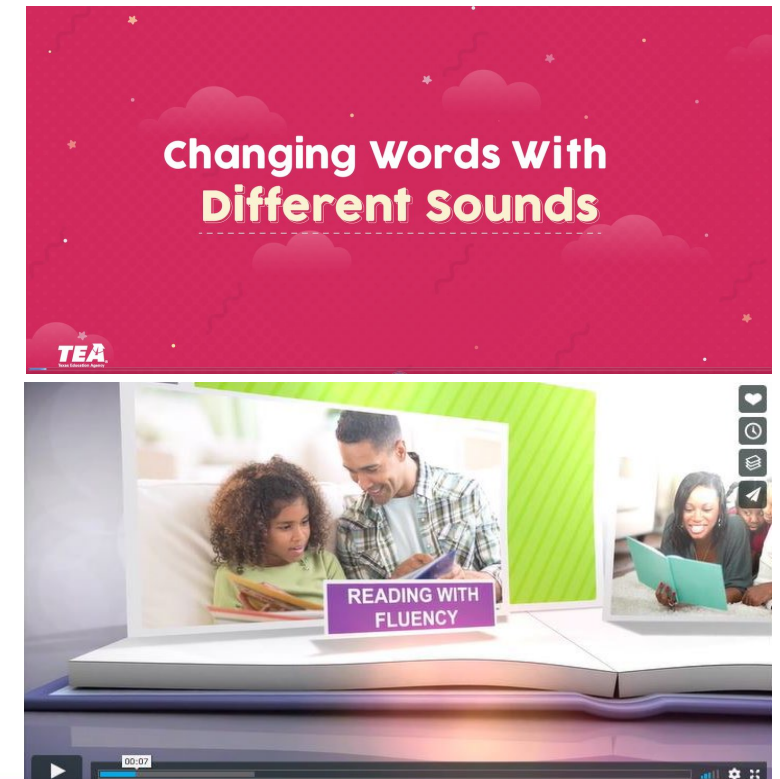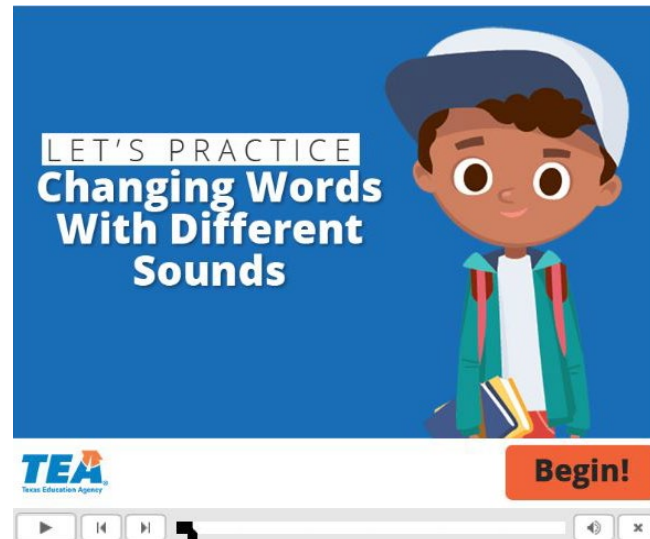
Quizlet

Video Lesson

Family Companion Video

Projected 2019-2020 Timeline

Finalizing Key Milestones: Revised Work Plan

Looking ahead, the team seeks to finalize key milestones that will drive the revised work plan and ensure we are able to deliver the highest quality materials on an agreed upon timeline.

MILESTONE	TARGET
Pilot decisions are made	August
OER Curricular Framework is finalized	August
Region 13 is staffed for project	August
OER Process Guides are fully complete/final	August
OER launches procurement site	September
Interactive Tools content is incorporated in the TEKS Guides	October
Source material for pilot grades is identified and agreed upon	October
Educator Editors are hired & fully trained	October
OER Pilot is underway in agreed upon grades	January

Appendix

Appropriation Authority

Rider 57. Open Education Resource Instructional Materials.9, 13 Out of funds appropriated above in Strategy B.2.1, Technology and Instructional Materials, the Commissioner shall set aside $10,000,000 from the Technology and Instructional Materials Fund in each fiscal year of the biennium to issue a request for proposals for state-developed open education resource instructional materials under Texas Education Code §31.071. It is the intent of the Legislature that the request should prioritize the procurement of materials in subject areas that constitute the bulk of school district purchases, including subject areas aligned with the State Board of Education curriculum revision schedule, and advanced secondary courses supporting the study of science, technology, engineering, and mathematics. The Commissioner shall require that any external entity developing open education resource instructional materials funded by this rider provide any data deemed necessary to assess the progress and success in developing such materials.

The Commissioner shall annually submit a report by September 1 to the Governor, the Lieutenant Governor, the Speaker of the House, the Legislative Budget Board, and the presiding officers of the standing committees of the legislature with primary jurisdiction over public education. The report shall include information on the number and type of open education resource instructional materials developed, use of those materials by school districts and open-enrollment charter schools, and plans for assessing the effectiveness of those materials.

GAA, Article III, Rider 57, 85th Texas Legislature, 2017