TO: Members of the State Board of Education

FROM: Carey M. Wright, Ed.D., Interim State Superintendent of Schools

DATE: April 30, 2024

SUBJECT: Adoption of High-Quality Instructional Materials (HQIM) Identification Frameworks

Purpose

The Maryland State Department of Education Office of Teaching and Learning seeks approval from the State Board of Education (SBOE) to adopt the newly developed MSDE High Quality Instructional Materials (HQIM) Selection Frameworks.

Background

The Maryland State Department of Education (MSDE) is committed to providing best in class curricular guidance and materials through a collaborative and transparent process that emphasizes students and teachers.

The Blueprint for Maryland's Future requires that MSDE develop a system to identify and promote High Quality Instructional Materials (HQIM) that support students in achieving the College and Career Readiness standard. MSDE has created a foundational HQIM framework document that outlines the definitional underpinnings of this signaling system. This document was developed in consultation with national experts and Maryland educators. MSDE has been advised by an additional panel of national experts on each of the core content areas: English Language Arts, Mathematics, Science, and Social Studies, as well as Universal Design for Learning (UDL), and supports for multilingual learners. This Framework will be used to inform the development of the Maryland HQIM evaluation rubrics and to train Maryland HQIM reviewers. Given its centrality to MSDE's curriculum and instructional strategy to meet the goals of the Blueprint, MSDE seeks the approval from the State Board of Education to adopt the proposed HQIM Framework document to become the foundation of how high-quality instructional materials are identified in Maryland, including the Key Criteria described within each document.

Executive Summary

This presentation will provide information on the following:

1. HQIM Landscape and Background
2. Research Findings
3. MSDE HQIM Theory of Action
4. MSDE HQIM Selection Frameworks Overview and Stakeholder Engagement
5. MSDE HQIM Selection Framework Adoption Request

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Action

Requesting that the State Board of Education approve the adoption of the attached newly developed MSDE High Quality Instructional Materials (HQIM) Identification Frameworks:

- ELA HQIM Selection Framework
- Math HQIM Selection Framework
- Social Studies HQIM Selection Framework
- Science HQIM Selection Framework

Attachments

- HQIM Framework Presentation.pdf
- ELA HQIM Selection Framework.pdf
- Math HQIM Selection Framework.pdf
- Social Studies HQIM Selection Framework.pdf
- Science HQIM Selection Framework.pdf

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High Quality Instructional Materials (HQIM) Initiative Deep Dive

Office of Teaching and Learning

April 30, 2024

PRESENTED BY

Dr. Deann Collins, Deputy Superintendent
Amreena Hussain, Senior Advisor HQIM Strategy
Phil Lasser, Senior Executive Director

Presentation Outline

1. HQIM Landscape and Background

2. Research Findings

3. MSDE HQIM Theory of Action

4. MSDE HQIM Selection Frameworks Overview and Stakeholder Engagement

5. MSDE HQIM Selection Framework Adoption Request

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Decision Point

The Maryland State Department of Education's (MSDE) Office of Teaching and Learning is requesting the adoption of the High-Quality Instructional Materials (HQIM) Selection Frameworks.

Key Elements of this Decision:

- The Blueprint requires that MSDE establish a system to identify High-Quality Instructional Materials (HQIM) and support districts in adopting and implementing HQIM.

- The HQIM selection framework will provide the conceptual and definitional foundation for developing evaluation rubrics and reviewing and publishing ratings for HQIM in the state of Maryland.

- MSDE has done extensive engagement with Local Education Agencies (LEAs), teachers, community organizations, academics, and state and national experts in the development of these frameworks.

National Landscape for HQIM Selection Frameworks

> **"…we just don't know enough about teacher and student access to (High Quality Materials).** Only eight states require systematic curriculum reporting by districts. Nationwide, curriculum selection remains something of a black box, leaving key stakeholders with insufficient information."

- MSDE conducted a materials adoption survey in January 2023 with a focus on Math and ELA adoption. The upcoming survey window in Summer 2024 will include Math, ELA, Science, and Social Studies.

- EdReports conducts reviews for Next Generation Science Standards (NGSS) – aligned materials

  o MSDE will be able to conduct a landscape analysis for science materials adoption in Maryland based on these ratings.

- The national landscape of rating systems to identify HQIM in social studies is still very nascent.

  o Currently available rating systems do not meet the standards aligned and grade-level requirements of Maryland's Social Studies standards and framework which are among the strongest in the country.

  o MSDE will need to define a framework that is aligned to the rigor to Maryland's Social Studies standards and develop rubrics to evaluate instructional materials for use in our state.

Source: Center for Education Market Dynamics

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Why HQIM in Maryland Now?

Students

Instructional Core

Teachers

Materials
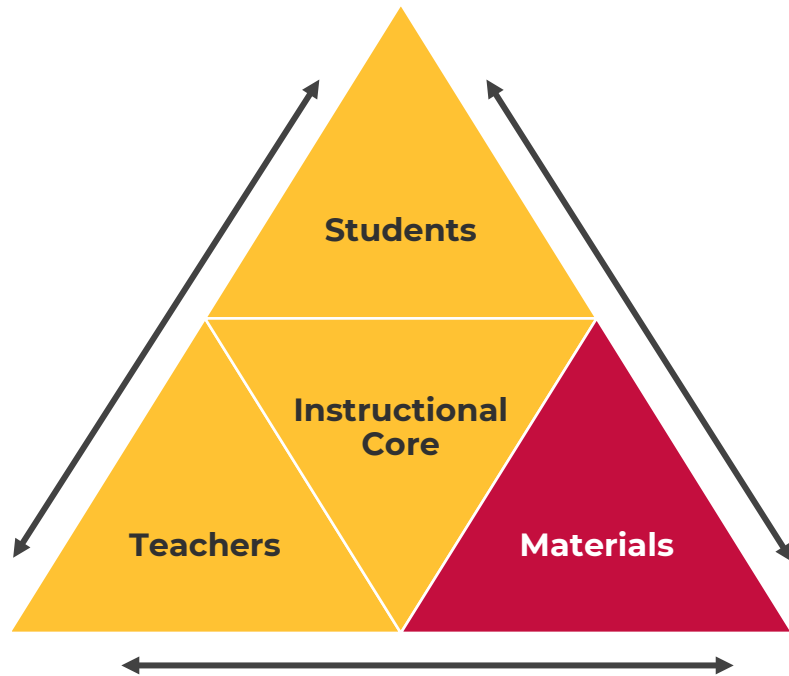
Content-rich, standards-aligned, and high-quality curricula exert a powerful influence on student achievement.

Source: ([Hiding in Plain Sight Report](#))

The Blueprint for Maryland's Future creates a mandate to significantly invest in high quality curriculum and aligned instruction

The State Board and MSDE Strategic Plan includes a charge for the Department to develop an initiative that will realize the Blueprint vision

Maryland Stakeholders are clear that we must prioritize adoption and implementation of HQIM

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Understanding Maryland's HQIM Landscape

EdReports is a national organization that was established to rate instructional materials and indicate their quality. This system centers standards alignment, grade-level rigor and complexity, and the usability of resources. LEAs in Maryland consider how the materials are rated according to EdReports when selecting which curriculum to select.

54% of LEAs use Green Materials for Elementary ELA*

96% of LEAs use Green Materials for Elementary Math*

ELA	Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations	Not rated or unknown
	% of all LEAs	% of all LEAs	% of all LEAs	% of all LEAs
K-5	54%	17%	8%	21%
6-8	46%	0%	17%	38%
9-12	38%	0%	13%	50%

Math	Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations	Not rated or unknown
	% of all LEAs	% of all LEAs	% of all LEAs	% of all LEAs
K-5	96%	0%	0%	4%
6-8	96%	4%	0%	0%
9-12	83%	0%	0%	17%

This data was collected in an LEA survey conducted January 2023. MSDE plans to launch a follow-up survey in Summer 2024 to refresh this data. MSDE *did not* collect data on science and social studies materials adoption in the first survey, but will collect this information in the upcoming survey window.

*Using EdReports as the rating system

Highlight from our national landscape research:

HQIM rating systems must be teacher-led:

A teacher-led rating system is essential in selecting materials that are grounded in educator experience and build buy-in with teachers, communities, and system.

Core design principles are well standardized across rating systems, including EdReports:

Standards alignment and grade-level instructional concepts are integral core design principles.

The rating system landscape needs to evolve on certain key criteria:

Usability, knowledge building, supporting multilingual learners, and Universal Design for Learning (UDL) concepts

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States across the country use different systems to identify HQIM:

HQIM are identified by the results of the reviews completed by EdReports.

Examples: Nebraska, Delaware, and Rhode Island

HQIM are identified using EdReports reviews as a baseline and then the State builds additional unique elements

Examples: New Mexico and Massachusetts

HQIM are identified by building a fully custom State rating system

Examples: Texas and Louisiana

Maryland's HQIM approach will use EdReports reviews as the required baseline. Maryland teacher teams will conduct reviews of EdReports rated materials based on the Maryland HQIM Selection Frameworks and Rubrics.

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Lessons from peer states, industry experts, and research: Standards Alignment Is Not Enough

"High-quality" instructional materials should align to State standards, but also:

- Build student knowledge to bolster comprehension and accelerate learning.

- Culturally affirm students and the knowledge they enter the classroom with.

- Linguistically affirm students and leverage home language as a strength not a deficit.

- Empower educators by providing user-friendly resources that improve pedagogical content knowledge.

- Focus on supporting all learners by prioritizing universal design for learning.

High-quality instructional materials / high-quality instructional materials. /. (n.d.). Retrieved February 15, 2023, from https://www.doe.k12.de.us/domain/627

Texas Education Agency. (2023, January 12). Strong Foundations Faqs. Texas Education Agency. Retrieved February 15, 2023, from https://tea.texas.gov/academics/instructional-materials/strong-foundations-faqs

Schwartz, S. (2022, June 7). 4 ways states are exerting more control over classroom materials. Education Week. Retrieved February 15, 2023, from https://www.edweek.org/teaching-learning/4-ways-states-are-exerting-more-control-over-classroom-materials/2022/06

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Maryland's HQIM Theory of Action

If MSDE does the following;

Priority 1: Signals quality of instructional materials; and

Priority 2: Helps Maryland districts adopt HQIM as identified by the state's rating system; and

Priority 3: Supports effective HQIM implementation in districts and schools through multiple implementation support pathways; and

Priority 4: Increases the number of Educator Preparation Programs (EPPs) that prepare new educators to recognize and effectively instruct around HQIM (both for incoming educators and continuing education offerings); and

Enabling Condition 1: Communicate transparently and cultivate stakeholder support; and

Enabling Condition 2: Build performance management systems and tools

Then, Maryland will have a statewide ecosystem that ensures all students are engaged in rigorous content and receive high-quality, curriculum aligned instruction.

Signal Quality of Instructional Materials

Support Districts with Adopting HQIM
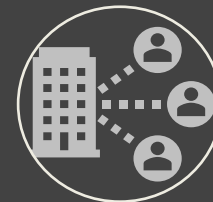
Provide HQIM Implementation Support to Districts

Work with Educator Preparation Programs (EPPs) to embed HQIM concepts and implementation in teacher preparation
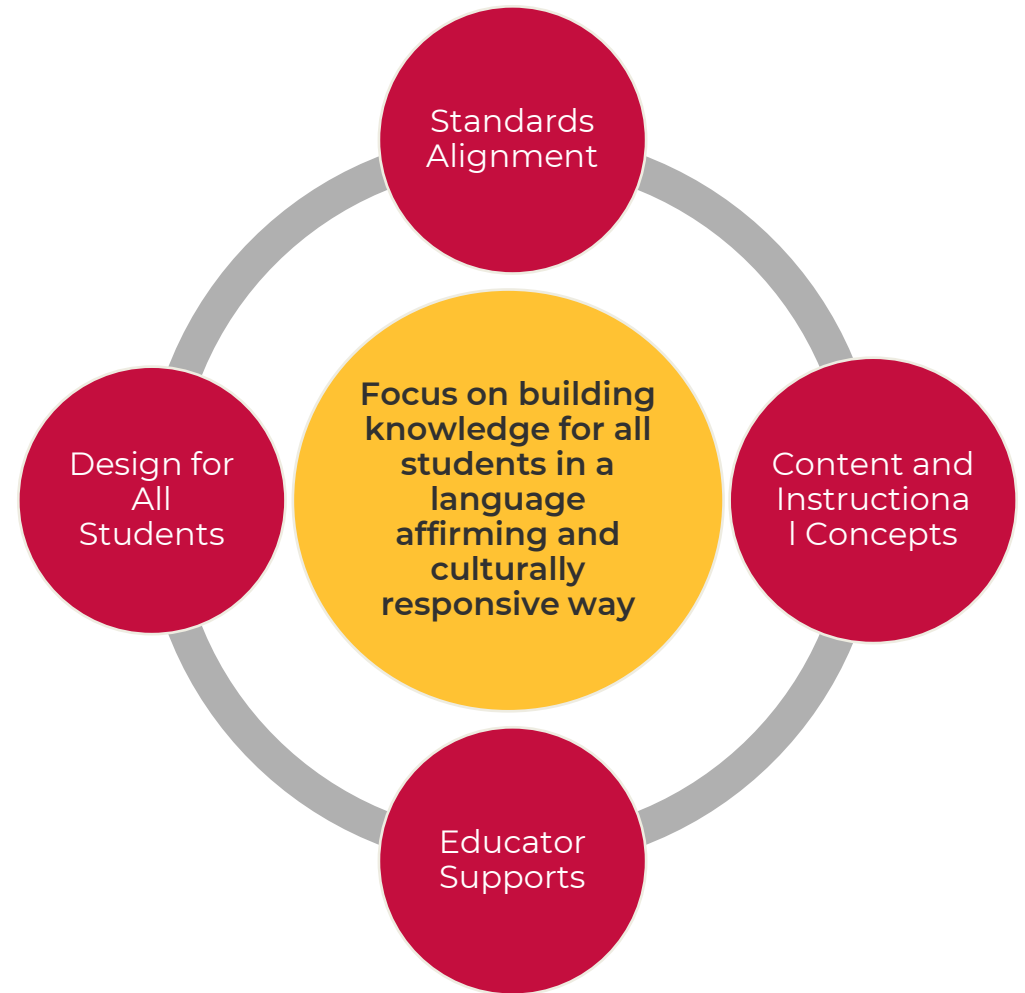
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Priority 1 - Signaling Curriculum Quality

Maryland must establish a framework for identifying HQIM that centers Maryland students and honors and advances the work already done by Maryland districts.
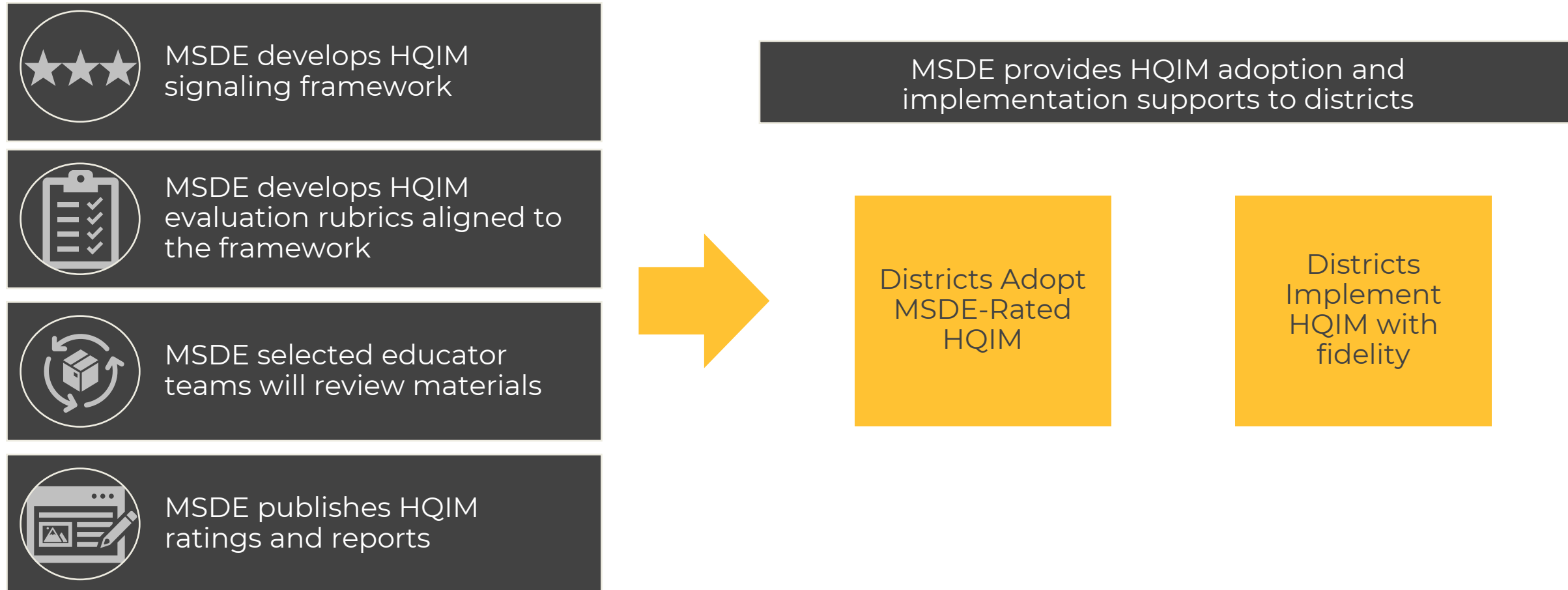
The framework should build on the foundation and knowledge-base created by best-in-class rating systems across the country, including EdReports.

Standards Alignment

Design for All Students

Focus on building knowledge for all students in a language affirming and culturally responsive way

Content and Instructional Concepts

Educator Supports

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Roles, Responsibilities, and Processes

The process to evaluate materials is fully managed by MSDE. MSDE will support districts through the HQIM adoption and implementation processes.

MSDE develops HQIM signaling framework

MSDE develops HQIM evaluation rubrics aligned to the framework

MSDE selected educator teams will review materials

MSDE publishes HQIM ratings and reports

MSDE provides HQIM adoption and implementation supports to districts

Districts Adopt MSDE-Rated HQIM

Districts Implement HQIM with fidelity

HQIM Framework Deep Dive

What is the HQIM Identification Framework?	How will it be used?	Who developed it?

What is the HQIM Identification Framework?

- It is a foundational document that outlines key elements that must be present in a curricular product to qualify it as HQIM in Maryland.

- It constitutes the definitional underpinnings of our HQIM signaling system for core criteria:
  - Standards and grade level aligned
  - Building knowledge
  - Supports multilingual learners (ML)
  - Culturally responsive and sustaining
  - Universal Design for Learning
  - Usability and educator supports
  - Pedagogical content knowledge

How will it be used?

- The MSDE HQIM evaluation rubrics will be aligned to the framework.

- All rubric developers and curriculum evaluation teacher teams will be trained on the framework.

- The framework will be posted publicly on the MSDE website so that publishers and the public have insight into how HQIM is being evaluated in our state.

Who developed it?

- **Core Development:**
  - MSDE's HQIM Core Team
  - Student Achievement Partners (framework architecture and the ELA and Math Frameworks)
  - Zachary Carey and Aneesha Badrinarayan (Science Framework)
  - Peter Ramsey (Social Studies Framework)

- **Review and Advisory:**
  - MSDE's content directors
  - All LEA CAOs and content teams
  - MSDE's HQIM Expert Advisory (composed of national experts on HQIM, UDL, subject area, and ML supports)

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This HQIM Framework is a shared foundational architecture for all content areas.

- ELA
- Math
- Science
- Social Studies
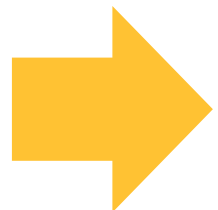
Design to Affirm All Students	Grade-level and Standards Aligned	Instructional Design	Educator Supports
• Culturally responsive-sustaining instruction • Language affirming instruction	• Materials are aligned to the Maryland State Standards	• Student Agency • Progress Monitoring and Supporting Students	• Educator knowledge • Usability

Sample Framework Components

Subject	Design Element
ELA	Grade-Level and Standards Aligned
Math	Designed to Affirm Students
Science	Educator Supports
Social Studies	Instructional Design

Key Criteria	What would reviewers look for in instructional materials?
Speaking, Listening, and Oral Language Development	• Integrated Oral Language Development • Prominent, Authentic Discourse Opportunities • Building Vocabulary
Language Affirming Instruction	• Multilingualism in Mathematics • Language Objectives • Cognitively Demanding Mathematics • Share Reasoning in Multiple Ways
Supporting Principled Adaptation to Local Contexts and Specific Student Experiences	• Related and Alternative Phenomena • Student-Centered Extensions and Alternatives • Clear guidance on constant and variable features
Progress Monitoring and Supporting Students	• Supports & Scaffolds • Simultaneous Literacy & Language Development • Progress Monitoring • Meaningful Feedback

HQIM Framework – Stakeholder Feedback (School Districts)

155 Participants

HQIM Overview Sessions:

In October 2023, 155 district content team members attended HQIM information sessions that served as an overview to the HQIM strategy and a preview of the framework

45 Participants

Content Collaborative Sessions:

In December 2023, each MSDE core content area director (ELA, Math, Science, Social Studies) held a feedback session for the HQIM framework where our teams received feedback on the framework from district content leadership.

75 Participants

In-Person Framework Feedback from District CAOs and Content Teams:

In October 2023, all districts were invited to bring content teams to the monthly Assistant Superintendent meeting where MSDE shared a draft of the framework and solicited in-person feedback in all content-specific groups.

147* Participants

HQIM Framework Feedback Survey:

In December 2023, MSDE shared the HQIM framework survey for feedback from all members of all district curriculum teams including content teams, instructional leadership teams, professional development staff, and leaders.

*147 LEA participants responded, and 98 had usable data that was included in the analysis and used by the development team for revisions.

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HQIM Framework – Stakeholder Feedback (School Districts)

Districts respondents are in strong agreement with the direction proposed in the HQIM framework. We have received 80% agreement on most indicators included in our survey about core HQIM principles, internal validity, content-specific instructional concepts, and cross-content coherence.

MSDE is committed to including district voice from every district and every core C&I function within school districts. District Feedback is an essential part of our framework development process. We have synthesized every feedback session and returned it to our development team to incorporate into the framework.
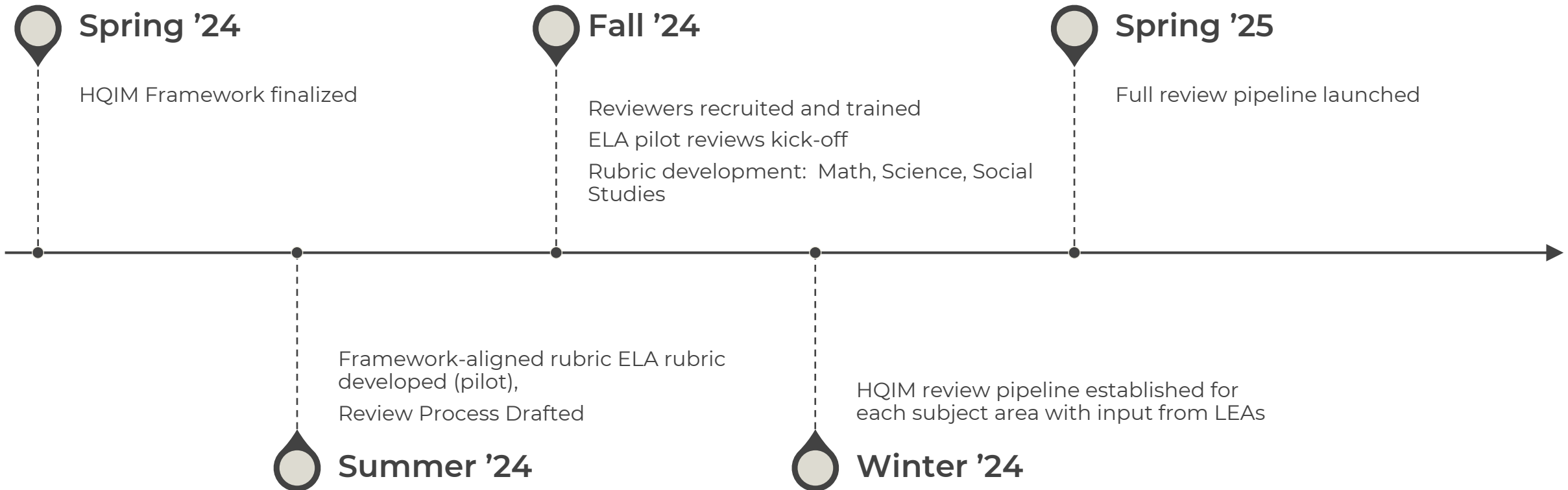
Areas of Agreement ✅

- The content-level design principles sufficiently and comprehensively represent the requirement for each content area
- Each content framework is sufficiently aligned to, and appropriately covering MSDE's core areas of focus for curriculum quality (building student knowledge and linguistically and culturally affirming)
- Adequately reflect the needs of all student groups and appropriately apply UDL considerations
- Appropriate degree of thematic coherence across all framework documents

Areas of Improvement ⚠️

- Ambiguity in language, e.g. text vs. curriculum, 'supporting' multi-linguistic vs. 'affirming' multi-linguistic students
- More explicit in UDL expectations
- Misunderstanding on the purpose of the framework – especially deeper into LEA content teams there seems to be a misunderstanding that districts will need to apply this framework and review materials
- Some concern that the framework is setting a 'too-high' bar

Note: The above summary is a sample of the type of feedback we received from districts. The above feedback has been addressed in revisions by the framework developers.

HQIM Reviews: Next Steps and Timeline

Spring '24

HQIM Framework finalized

Fall '24

Reviewers recruited and trained

ELA pilot reviews kick-off

Rubric development: Math, Science, Social Studies

Spring '25

Full review pipeline launched

Framework-aligned rubric ELA rubric developed (pilot),

Review Process Drafted

Summer '24

HQIM review pipeline established for each subject area with input from LEAs

Winter '24

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HQIM Rubrics and Reviews: Next Steps

Rubric Development

- ELA rubric is being developed first **as a pilot** to work through rubric structure, prioritization, and scoring

- Math, Science, and Social Studies rubrics will all be **developed in parallel** using ELA as a model

- MSDE anticipates having all 4 rubrics and aligned trainings developed in 2024

Reviews

- A 'pilot' set of ELA reviews will be conducted in Fall, 2024 to **user-test the rubrics and the review process** including reviewer calibration

- Once the review process is tested, **reviews for all 4 content areas will be conducted in parallel** on the same timeline

Report Publication

- MSDE is in the process of developing the report design based on rubric structure and scoring

- MSDE is in the process of developing an HQIM website where all ratings and reports will be published

- Ratings and **reports will be published on an ongoing basis at the conclusion of each review**

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HQIM Framework – Ongoing Stakeholder Feedback

We have conducted focus groups with a range of stakeholder groups

Educators

Parents and Community Members

Students

Ongoing Stakeholder Engagement

- MSDE will establish ongoing Advisories of school districts, educators, parents, community members and students

- MSDE will continue to conduct focus groups to solicit feedback on our HQIM strategy and review pipeline

- Our feedback sessions with school districts in the next phase of work will specifically focus on implementation challenges

- Our feedback sessions with educators will specifically focus on teachers' and school leaders' needs related to curriculum-aligned professional learning

- Our feedback sessions with parents, students, and community members will continue to focus on how instructional materials can best center students and specifically support learning for students furthest from opportunity

Framework Adoption

MSDE requests that the State Board of Education adopt the proposed HQIM Framework document, to become the foundation of how high-quality instructional materials are identified in Maryland, including the Key Criteria described within each document.

- ELA Framework

- Math Framework

- Social Studies Framework

- Science Framework

Questions and Discussion

Appendix

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ELA Framework Components

Grade-Level and Standards Aligned

Key Criteria for Integrated Literacy	• Reading, Writing, Speaking & Listening
Key Criteria for Foundational Skills Across Grade Levels	• Systematic and Explicit Instruction • Practice Opportunities and Resources • Fluency
Key Criteria for Text & Resource Selection	• Grade-Level Texts • Supportive Texts and Resources • Intentional Design
Key Criteria for Questions and Tasks	• Text-Based & Standards Aligned • Intentional Sequencing
Key Criteria for Volume, Quality, and Range of Writing	• Prominent, Authentic Writing Opportunities • Explicit Instruction • Varied Writing Experiences
Key Criteria for Speaking, Listening, and Oral Language Development	• Integrated Oral Language Development • Prominent, Authentic Discourse Opportunities • Building Vocabulary

ELA Framework Components

Instructional Design

Key Criteria for Building Knowledge	• Knowledge-Building Focus • Inclusive Content • Systematic organization
Key Criteria for Student Agency	• Metacognitive Processes • Choice • Collaborative Learning
Key Criteria for Progress Monitoring and Supporting Students	• Supports & Scaffolds • Simultaneous Literacy and Language Development • Progress Monitoring • Meaningful Feedback

ELA Framework Components

Educator Supports

Key Criteria for Educator Knowledge	• Examine Self • Students' Linguistic and Cultural Assets • Supporting Language Development for all Learners • Supporting Literacy Development • Text and Topic Knowledge
Key Criteria for Usability	• Design and Functionality • Adaptability for Context • Program Coherence

Designed to Affirm Students

Key Criteria for Culturally Responsive-Sustaining Instruction	• Affirm & Center Students • Literacy as a Tool for Civic Engagement • Real World Connections
Key Criteria for Language Affirming Instruction	• Multilingualism in Literacy • Language Objectives & English Language Development (ELD) Coherence • Text Selection to Support Language Development

Math Framework Components

Grade-Level and Standards Aligned

Key Criteria for Focus on Essential Mathematics	• Essential Mathematics
Key Criteria for Coherence	• Consistent Progressions • Coherent Connections
Key Criteria for Rigor and Balance	• Rigor and Balance
Key Criteria for Mathematical Practices	• Practice-Content Connections • Emphasis on Mathematical Reasoning

Instructional Design

Key Criteria for Student Agency	• Metacognitive Processes • Choice • Multiple Entry Points to Complex Tasks • Authentic Engagement as a Mathematician • Collaborative Learning
Key Criteria for Progress Monitoring and Supporting Students	• Supports & Scaffolds • Simultaneous Mathematical Meaning Making and Language Development • Relevant Contexts • Mathematical Discourse • Practice opportunities and resources • Progress Monitoring • Meaningful Feedback

Math Framework Components

Educator Supports

Key Criteria for Educator Knowledge	• Examine Self • Students' Linguistic and Cultural Assets • Supporting Language Development for all Learners • Supporting Mathematical Development • Mathematical Discourse • Collectivist Approach
Key Criteria for Usability	• Design and Functionality • Adaptability for Context • Program Coherence

Designed to Affirm Students

Key Criteria for Culturally Responsive-Sustaining Instruction	• Affirm and Center Students • Mathematics as a Tool for Civic Engagement • Real World Connections and Relevant Data
Key Criteria for Language Affirming Instruction	• Multilingualism in Mathematics • Language Objectives • Cognitively Demanding Mathematics • Share Reasoning in Multiple Ways

Science Framework Components

Grade-Level and Standards Aligned

Key Criteria for Sense-Making	• Phenomenon- or Problem-driven Learning and Performance • Three Dimensions Development • Nature of Science Development • Nature of Science and Three Dimensions Integration • Hands On
Key Criteria for Coherence	• Lesson and Unit Coherence • Skill Building Coherence • Math and ELA Alignment • Scientific Accuracy

Instructional Design

Key Criteria for Student Agency	• Cultivate Joy • Solutions-Oriented • Imaginative and Creative Risk-taking • Choice and Interest • Feelings of Success
Key Criteria for Leveraging Funds of Knowledge	• Student Idea Engagement • Storycatching • K-12 Progressions • Developmentally Appropriate Transfer
Key Criteria for Progress Monitoring and Supporting Students	• 3D Performance Monitoring • Metacognitive Processes • Asset-Oriented Feedback • Diverse Supports and Scaffolds • Disciplinary Literacy

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Science Framework Components

Educator Supports

Key Criteria for Educator Knowledge	• Examine Self • Pedagogical Content Knowledge
Key Criteria for Supporting Relationships building and Productive Classroom Culture	• Students' Linguistic and Cultural Assets • Inclusive Classroom Environments • Peer and Adult Relationship Building
Key Criteria for Supporting Principled Adaptation to Local Contexts and Specific Student Experiences	• Related and Alternative Phenomena • Surfacing Student Experiences • Student-Centered Extensions and Alternatives • Clear Guidance on Constant and Variable Features
Key Criteria for Usability	• Design and Functionality • Program Coherence

Designed to Affirm Students

Key Criteria for Culturally Responsive-Sustaining Instruction	• Affirm and Center Students • Science as a Tool for Civic Engagement • Criticality • Real World Connections
Key Criteria for Language Affirming Instruction	• Multilingualism in Science • Phenomena/Text Selection to Support Language Development

Social Studies Framework Components

Grade-Level and Standards Aligned

Key Criteria for Alignment with the Maryland Social Studies Standards (MSSS)	• Inquiry as Core Tenet • Disciplinary Content Fluency • Evaluating Sources and Leveraging Evidence
Key Criteria for Text & Resource Selection	• Grade-Level Texts • Supportive Texts and Resources
Key Criteria for Compelling Questions and Tasks	• Text-Based & Aligned to Standards and MSSFS • Intentional Sequencing
Key Criteria for Speaking, Listening, and Oral Language Development	• Integrated Oral Language Development • Prominent, Authentic Discourse Opportunities • Building vocabulary
Key Criteria for Volume, Quality, and Range of Writing	• Prominent, Authentic Writing Opportunities • Explicit Instruction • Varied Writing Experiences

Instructional Design

Key Criteria for Building Knowledge & Skills	• Knowledge-Building Focus • Inclusive Content • Historical Thinking Skills
Key Criteria for Student Agency	• Metacognitive Processes • Choice & Voice • Collaborative Learning
Key Criteria for Progress Monitoring and Supporting Students	• Supports & Scaffolds • Simultaneous Literacy & Language Development • Progress Monitoring • Meaningful Feedback

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Social Studies Framework Components

Educator Supports

Key Criteria for Educator Knowledge	• Examine Self • Inquiry Based Teaching Practices • Text, Topic Knowledge • Students' Linguistic and Cultural Assets • Supporting Language Development for ALL Learners • Supporting Literacy Development
Key Criteria for Usability	• Design and Functionality • Adaptability for Context • Program Coherence

Designed to Affirm Students

Key Criteria for Culturally Responsive Instruction	• Affirm & Center Students • Social Studies as a Tool for Civic Engagement • Real World Connections
Key Criteria for Language Affirming Instruction	• Multilingualism in Social Studies

Why Instructional Materials Matter for Maryland Students

The students of Maryland are a vibrant community of diverse learners, including a growing number of multilingual students and students from various racial and cultural backgrounds.[1] Instructional materials designed to best serve these students must facilitate enriching, culturally responsive, and language-affirming environments for all students.

Students deserve the opportunity to engage with rigorous content that builds a strong foundation for their educational journey and empowers them with essential learning skills. High-quality literacy instructional materials offer students engagement with worthy and complex texts, tasks, and learning experiences that foster critical thinking abilities and language development and amplify student voice and agency. Additionally, these materials prioritize the affirmation of students' cultural and linguistic identities, attending to inclusive learning communities that connect education to their real-world experiences and provide the support and skill to ensure that students with diverse learning needs thrive.

By aligning with college and career readiness standards and research-based approaches, high-quality instructional materials unlock and support knowledge-building that encourages active learning and leads to dynamic demonstrations of knowledge from students. Furthermore, these materials offer support for educators, equipping them with the necessary tools, content knowledge, pedagogical expertise, and research-based practices to effectively engage students and adapt to diverse community and school contexts. With this comprehensive approach, instructional materials in Maryland have the potential to create transformative learning environments that prepare students from kindergarten through graduation for a future of choice and opportunity.

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1   In 2022, Maryland's student population included 33% Black, 33% White, 22% Latinx, and 7% Asian students, as well as 12% English learners, 12% students with disabilities, and an increasing proportion who face economic challenges ([Maryland State Department of Education](#)).

Document Introduction

This framework serves as a valuable resource for educators and stakeholders across the education sector to identify key criteria in truly high-quality instructional materials. It outlines the essential elements of outstanding curricula and offers clear guidelines on the instructional shifts and educator supports needed to foster meaningful learning experiences for students. To deliver the world-class education that the [Blueprint for Maryland's Future](#) envisions, educators and leaders can rely on this framework in service of identifying the research-based, high-quality materials that are necessary to provide students with rigorous instruction, nurture spaces that affirm their cultural and linguistic identities, and ensure their continued progress and success each year.

This framework is grounded in extensive research aimed at defining the content, instructional practice, and instructional design present in high-quality instructional materials. These research-based elements are central to the criteria within this framework and critical to support the kinds of learning experiences that Maryland students deserve.

Despite its strengths as a resource for identifying high-quality instructional materials, there are limitations for how this framework can be used. While the document presents crucial guidelines, it is NOT intended to be exhaustive in addressing all the elements of instructional materials and practices needed to create an equitable experience for students. Additionally, this document is NOT a rubric, meaning it does not provide a checklist or a scoring system for evaluation of instructional materials. Instead, it offers guidance on the essential components of high-quality materials, encouraging educators to exercise professional judgment and adapt to their specific educational context. From this framework, a complimentary English language arts (ELA)/literacy rubric has been designed to make these criteria measurable in service of evaluating the quality of instructional materials.

It is also important for educators and leaders to recognize any and all humanizing considerations beyond the framework that may be necessary based on their unique students, classroom contexts, and school/district conditions in their review and selection of high-quality materials. Overall, this framework serves as a roadmap, empowering educators to select and use instructional materials that foster inclusivity, rigor, and relevance, ultimately resulting in enhanced learning outcomes for all students.

DOCUMENT ORGANIZATION

This document, intended for use when considering K–12 ELA/literacy core instructional materials, is organized into four categories (Designed to Affirm Students, Grade-Level and Standards-Aligned, Instructional Design, and Educator Supports), with domains that highlight key criteria within each section.

While specific categories have been included for culturally responsive-sustaining pedagogy and language-affirming instruction, related considerations for affirming students are woven throughout the framework. Similarly, considerations for diverse learning needs and Universal Design for Learning have been embedded throughout to reflect the way that these practices must be interlaced in thinking about content, instructional practice, and support for educators.

 A collection of research and scholarship used to inform this framework is included as an appendix.

Key Criteria for High-Quality Instructional Materials

DESIGNED TO AFFIRM STUDENTS

Affirming students creates opportunities for cultural and linguistic backgrounds to be an asset and a source of validation in the learning experience. In addition to a foundation of grade-level content, high-quality instructional materials must prioritize instructional practices that affirm students' cultural and linguistic backgrounds and support students with a range of diverse learning needs to thrive through literacy. This support includes developing culturally responsive-sustaining learning communities that center who students are, use literacy as a tool for civic engagement, and connect learning to the world outside the schoolhouse walls. Literacy instruction must also intentionally affirm students' languages and language practices through a focus on building upon students' multilingualism, ensuring that texts support language development, and designing language objectives that work in concert with content and literacy learning. Through these instructional choices, materials have the potential to deepen literacy learning, cultivate a sense of belonging, and recognize who students are and will grow to be.

Key Criteria for Culturally Responsive-Sustaining Instruction[2]

- **Affirmation and Centering of Students:** Instructional materials affirm, engage, and center past and current knowledge of Black/African, Indigenous, Brown, and non-Western literary expressions and highlight multilingualism. Instructional materials are designed to encourage students to anchor learning in their individual experiences, backgrounds, and cultural knowledge to support and further literacy work. These materials include all of the following elements:

    a. regular opportunities for students to share who they are and what they know, bringing their unique funds of knowledge to their literacy experiences;[3]

    b. reflection and conversation within the context of the text or topic under study that affirm students' identities and experiences;

    c. tasks that support students to express (orally, in writing, in media, and in other formats) how texts and topics under study do or do not affect their understanding of the world; and

    d. tasks that require students to integrate what they have read and/or learned from others with their own knowledge and synthesize ideas across texts.

- **Literacy as a Tool for Civic Engagement:** Instructional materials consistently include texts and tasks that prompt students to apply and develop their civic engagement skills and examine

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[2] This conceptualization of culturally responsive-sustaining instruction is built on the evidence from its predecessors—culturally relevant, responsive, and sustaining pedagogies. This scholarship underscores the importance of leveraging the diverse backgrounds of students as assets in the classroom that can and should be sustained through intentional instructional design. For more information about relevant scholarship, please see the citations section in the Appendix.

[3] Moll, L. C., Amanti, C., Neff, D., & González, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. Theory Into Practice, 31(2), 132–141.

social context and current events, using literacy to question the world and the current status quo. These materials include all of the following elements:

    a. opportunities for students to read, write, speak, and listen in an effort to think critically about the content/perspective of the text or resources;

    b. attention to historical and social contexts in texts; and

    c. opportunities for critically examining texts for influence, bias, and diversity of perspectives and for considering whose voice is elevated and whose is absent.

- **Real-World Connections:** Instructional materials consistently connect with students' lives, their future goals, their communities, and the world and nurture ways for students to engage in their own communities and beyond. These materials include all of the following elements:

    a. use of literacy texts and tasks to connect to current events;

    b. collaborative tasks and/or projects that involve real-world problem-solving through meaningful interactions with peers and their local communities; and

    c. connections between developing literacy skills and knowledge and students' academic and personal goals.

Key Criteria for Language Affirming Instruction

- **Multilingualism in Literacy:** Instructional materials are deliberately designed to honor and build upon students' language(s) as an asset, encouraging students to use their linguistic repertoire to communicate with one another via reading, writing, speaking, and listening while engaging in literacy. These materials include all of the following elements:

    a. promoting sustained oral and written communication, including explicit encouragement to use a range of language practices and registers and to use their full language repertoire through translanguaging so all students express themselves in a language they are comfortable with while working to learn literacy content and meet language objectives in the target language;[4]

    b. building vocabulary and understanding of new concepts in English and home language(s), including use of social and academic vocabulary; and

    c. making cross-linguistic connections, including identifying and comparing similarities and differences between home language(s) and English (e.g., cognates) or registers and registers of instruction.

- **Language Objectives & English Language Development (ELD) Coherence:** Instructional materials provide explicit alignment between language and content objectives to identify language goals that are embedded with content-based meaning. This includes language objectives for both expressive (writing and speaking) and receptive (listening and reading) communication that are aligned to text and task. Core instructional materials should also consistently and meaningfully align language objectives, language standards (e.g., WIDA), and

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4 García, O., Johnson, S. I., & Seltzer, K. (2017). The translanguaging classroom: Leveraging student bilingualism for learning. Caslon. For more, see Translanguaging Strategies, English Learner Success Forum.

ELD curriculum and instruction. This includes aligning the content of core lessons and units with ELD standards and indicating specific literacy skills that teachers should amplify through ELD instruction.

- **Text Selection to Support Language Development:** Instructional materials use texts that have all of the following elements:

    a. authentic language;

    b. rich vocabulary and syntax;

    c. content that is written in home languages, when possible, and is high quality (e.g., not poor-quality translations); and

    d. formatting that support meaning-making and language development (e.g., text engineering).

GRADE-LEVEL AND STANDARDS ALIGNED

Grade-level, standards-aligned content serves as a necessary foundation for equitable student experiences in the classroom. Engaging with this rigorous content from kindergarten through graduation sets students on a path to empowered lives, and instructional materials must be designed so that all students have access to this essential literacy work. This includes ensuring that all students are empowered by secure foundational skills, engage with worthy texts and resources, tackle high-quality questions and tasks, develop their oral language and vocabulary, and pursue a volume of writing to express their learning and ideas to become independent readers and learners.

Key Criteria for Integrated Literacy

- **Reading, Writing, Speaking & Listening**: Instructional materials demonstrate the interrelated components of literacy by highlighting the relationships among reading, writing, speaking, and listening throughout instruction. These materials include instructional design that centers around students discussing and writing about what they read, as well as using their developing foundational skills to read and write.

Key Criteria for Foundational Skills Across Grade Levels

- **Systematic and Explicit Instruction:** Instructional materials focus on the interrelated but discrete foundational skills of language: print concepts, phonological (including phonemic) awareness, phonics and word recognition, and fluency. More advanced foundational skills study continues to attend to fluency with grade-level texts as well as morphology, syllables, and etymology. These materials include all of the following elements:

    a. a clearly defined set of skills that is appropriate to the grade level (i.e., a systematic scope and sequence of foundational skills in the early grades and targeted skills in later grades to support students' continued development);

    b. explicit, research-based instruction designed in ways that are clear, authentic, specific to the language of instruction, and in service of meaning-making; and

    c.   connections between languages (cross-linguistic connections) to support students' understanding and transfer of applicable knowledge between languages (e.g., sound, syllable, word level).

- **Practice Opportunities and Resources:** Instructional materials contain abundant and research-based practice structures, tasks, and supporting resources that align with the sequence of taught foundational skills. These materials include all of the following elements:

    a.   meaningful contexts;

    b.   a variety of engaging practice modes (e.g., games, puzzles, worksheets, songs, decodable texts) that support in- and out-of-context practice, as well as decoding, encoding, and oral language development;

    c.   ability for students to use with or without teacher support; and

    d.   a design that enables distributed practice and cumulative review.

- **Fluency:** Instructional materials focus in particular on fluency. Materials contain research-based systematic and supportive instruction and practice for students to read grade-appropriate texts with a focus on accuracy, automaticity, and prosody including repeated reading and processes to make meaning from reading.

Key Criteria for Text & Resource Selection

- **Grade-Level Texts:** Instructional materials ensure that all students have extensive access and pathways to actively engage with authentic grade-level texts. These core texts for instruction are appropriately complex for the grade (based on quantitative and qualitative features) to build students' ability to read closely. [5] This includes texts for reading aloud in the early grades and use of full-length works across all grades.

- **Supportive Texts and Resources:** Instructional materials incorporate supportive texts and resources. These materials include all of the following elements:

    a.   texts at a variety of complexity levels that are sequenced around knowledge-building topics to support students' access to grade-level texts (i.e., do not assign students to static levels) and to support teachers in scaffolding materials designed to meet diverse learning needs;

    b.   a range of knowledge-focused topically connected multimedia and art resources (e.g., videos, visual art, music, virtual museums or galleries);

    c.   when supporting foundational reading, alignment with readers' needs at their developmental stage and ability to allow direct practice of taught phonics skills (e.g., decodable texts aligned to the scope and sequence); and

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[5] Council of Chief State School Officers & National Governors Association. (2013). Supplemental information for Appendix A of the Common Core State Standards for English Language Arts and Literacy: New research on text complexity. https://achievethecore.org/page/1193/supplemental-information-for-appendix-a-of-the-common-core-state-standards-for-english-language-arts-and-literacy-new-research-on-text-complexity

      d.   guidance and student-facing resources for regularly engaging in a volume of reading with these resources.

- **Intentional Design:** Across the year, instructional materials contain texts that are appropriately balanced between literary and informational.[6] Texts build in complexity to support students' increasing independence with complex texts and content within and across years. All texts include considerations for student accessibility.

Key Criteria for Questions and Tasks

- **Text Based & Standards Aligned:** Instructional materials include text-specific questions, discussion prompts, and tasks to support students' access to complex texts, language, and ideas (including for texts in home languages or translated texts). These materials include all of the following elements:

  a.   attending to each text's particular qualitative complexities (i.e., meaning/purpose, structure, language, knowledge demands);

  b.   spurring the analytical thinking required by college- and career-ready standards at each grade level (i.e., attention to key ideas, details, craft, structure); and

  c.   addressing the audience, purpose, and genre of the text and prompt, as well as key language uses and language expectations.

- **Intentional Sequencing:** Instructional materials sequence text-based questions, discussion prompts, and tasks to support students in building mental models of texts as they read. These materials include all of the following elements:

  a.   building from students' funds of knowledge;[7]

  b.   attending to the words, phrases, and sentences (including syntax) in texts so students acquire social and academic language;

  c.   embedding checks for understanding (e.g., questions, tasks) of the text or topic under study to elicit evidence of student learning and to make student thinking visible;

  d.   engaging in close reading of especially complex sections of text;

  e.   building mental models of texts as students read; and

  f.   integrating understandings across multiple texts.

Key Criteria for Volume, Quality, and Range of Writing

- **Prominent, Authentic Writing Opportunities:** Instructional materials provide frequent opportunities for students to write with an authentic communicative purpose and audience,

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[6] National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects. https://learning.ccsso.org/wp-content/uploads/2022/11/ELA_Standards1.pdf

[7] Moll, L. C., Amanti, C., Neff, D., & González, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. Theory Into Practice, 31(2), 132–141.

connected to taught skills, texts, and topics under study. These materials include all of the following elements:

 a. regularly writing to sources;

 b. conducting short, focused research projects; and

 c. crafting prose, sentences, paragraphs, and texts that allow students to communicate information and their ideas through multiple means of expression.

- **Explicit Instruction:** Instructional materials include attending to the discrete skills of writing across genres in ways that make the thinking, planning, and writing more visible. These materials include all of the following elements:

 a. explicit instruction on paragraph and text structure within context (e.g., via structure-focused mnemonic devices, graphic organizers);

 b. use of relevant tools needed for access to effective construction and composition of writing;

 c. sentence-level instruction in context (including grammar/usage);

 d. attention to the writing process, discipline- and genre-specific skills, and language development alongside development of writing skills;[8] and

 e. addressing of language-specific linguistic structures, including key language uses, language expectations, and organizational structure for the text genre and prompt.

- **Varied Writing Experiences:** Instructional materials address different types of writing (i.e., on demand, process, research) and meet college- and career-ready expectations for writing across genres. [9] This includes a focus on narrative, expository, opinion/argument, and blended forms of writing.

Key Criteria for Speaking, Listening, and Oral Language Development

- **Integrated Oral Language Development:** Instructional materials regularly integrate oral language, writing, reading, and discussion about grade-level texts, topics, and skills.[10] These materials include all of the following elements:

 a. attention to meaning and oral language development within foundational skills instruction;

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8 English Learners Success Forum. (n.d.). ELA guidelines. Retrieved July 11, 2023, from https://www.elsuccessforum.org/ela-guidelines

9 National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects. https://learning.ccsso.org/wp-content/uploads/2022/11/ELA_Standards1.pdf

10 English Learners Success Forum. (n.d.). ELA guidelines. Retrieved July 11, 2023, from https://www.elsuccessforum.org/ela-guidelines

    b.   writing activities that engage students in discussion and oral rehearsals as part of the writing process;[11]

    c.   opportunities for listening comprehension through collaborative conversation about grade-level texts and topics; and

    d.   use of expressive language (i.e., speaking, writing) with increasingly complex language and syntax, demonstrating growing proficiency in the language of instruction.

- **Prominent, Authentic Discourse Opportunities:** Instructional materials include frequent, sustained discourse for students to discuss texts and topics under study. This academic discourse simultaneously builds knowledge, vocabulary, and language skills to express ideas and comprehension.

- **Vocabulary Building:** Instructional materials include explicit and research-based teaching of text-based vocabulary, including special attention to both academic and typically connected, interdisciplinary vocabulary as needed (e.g., art, history, science, social studies). These materials include all of the following elements:

    a.   practice of newly taught words orally and in writing, including through multiple relevant examples that support students making connection with targeted words;

    b.   student-friendly definitions;

    c.   morphological study;

    d.   visual representations; and

    e.   encouragement for the use, review, and assessment of targeted words throughout the unit.

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[11] English Learners Success Forum. (n.d.). ELA guidelines. Retrieved July 11, 2023, from https://www.elsuccessforum.org/ela-guidelines

INSTRUCTIONAL DESIGN

Instructional materials must attend to research-based instructional practices that support meaningful engagement for all students to be deemed high quality. It is through this intentional design that instructional materials contribute to learning communities in which students unlock knowledge; engage with peers as readers, writers, and thinkers; and regularly demonstrate their learning. This type of learning community builds students' literacy identities and experiences of joy in the literacy classroom.

Key Criteria for Building Knowledge

- **Knowledge-Building Focus:** Instructional materials center on building knowledge about self, others, and the world through regular interaction with knowledge-rich texts and literacy experiences. Units include topically connected, interdisciplinary content (e.g., include art, history, math, science, social studies). Reading skills and strategies are primarily taught and used in service of building knowledge through reading, writing, speaking, and listening.

- **Inclusive Content:** Instructional materials use texts and resources that affirm expansive and diverse perspectives and identities, including content from a variety of community, cultural, and language backgrounds within and across school years. This includes texts and resources at each grade level with all of the following elements:

    a. elevation of multiple perspectives;

    b. opportunities to compare and contrast narratives and counternarratives;

    c. inspiration for reflection, motivation, and civic engagement in response to ideas and content presented; and

    d. engagement of students in learning about the joy, resilience, determination, ingenuity, and leadership of all groups and communities, including historically marginalized communities.

- **Systematic Organization:** Instructional materials are built around knowledge-focused units that are topically connected and sequenced systematically, within and across grades, to connect to and build upon students' expanding knowledge bases.

Key Criteria for Student Agency

- **Metacognitive Processes:** Instructional materials apply a research-based approach to develop students' metacognition by directly teaching and supporting students to monitor understanding during reading and self-regulate during writing. These materials include all of the following elements:

    a. setting goals, self-monitoring growth, and reflecting on the impact of students' choices and ongoing development as readers, writers, and communicators;

b. providing explicit practices to develop students' metalinguistic awareness around language use and choices; 12

c. modeling and developing strategies that support students in making their thinking visible through speaking or writing as they develop their understanding; and

d. supporting students with diverse learning needs in developing metacognitive strategies.

- **Choice:** Instructional materials prompt teachers to provide students ample time to explore literacy concepts and content, during which students are given regular opportunities to make choices about how to spend time, whom to spend it with, and what materials are used (texts, topics, and tasks). These materials include all of the following elements:

    a. options for choosing methods for expressing students' understanding that best reflect their strengths as learners and their understanding of the content;

    b. self-selection of texts or resources (e.g., selections that represent their interests, identities, abilities);

    c. tasks that invite students to identify and pursue their own questions; and

    d. regular student feedback about literacy experiences and instruction.

- **Collaborative Learning:** Instructional materials engage all students in collaborative learning through a variety of researched-based routines, structures, and tasks that allow for whole-group, small-group, and independent thinking. Materials explicitly plan for students to demonstrate their curiosity and share their tentative thinking; ask questions; and adjust their understanding by building on one another's ideas through speaking, listening, reading, and writing.

Key Criteria for Monitoring Progress and Supporting Students

- **Supports & Scaffolds:13** Instructional materials are designed to support a variety of student strengths and diverse learning needs in ways that are based on research and do not interfere with their ability to engage with grade-level content. These materials include all of the following elements:

    a. text- and/or content-specific guidance on identifying and addressing potential individual student needs so that supports, scaffolds, and extensions can be effectively differentiated, including adjustments to content, process, or product;

    b. resources that provide reteaching of skills and concepts for students not yet proficient in grade-level foundational reading, writing, and language skills; and

    c. supports and scaffolds that are designed to shift responsibility to students over time.

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12 English Learners Success Forum. (n.d.). ELA guidelines. Retrieved July 11, 2023, from https://www.elsuccessforum.org/ela-guidelines

13 Thoughtfully designed questions and tasks that provide access to grade-level, culturally responsive-sustaining, and language-affirming experiences for students are one form of support for students and are addressed in other sections of this framework.

- **Simultaneous Literacy and Language Development:** Instructional materials include intentional language learning opportunities alongside appropriate, research-based supports for multilingual learners and students with diverse learning needs to develop literacy and language simultaneously. These materials include all of the following elements:

  a. explicit instruction in writing, text structure, syntax (sentence structure), and cohesive devices (words that connect ideas in a text such as although, however);

  b. embedded high-leverage language development supports that are aligned to the content and literacy goals (e.g., identifying cognates, sentence frames); and

  c. teacher guidance for strategic grouping to support the development of language.

- **Progress Monitoring:** Instructional materials embed resources and frequent opportunities to monitor learning and respond to students' progress in grade-level literacy skills, application of those skills, development of language, and growth of knowledge using their existing language resources.[14] Materials demonstrate how to diagnose critical student needs and draw clear connections to integrating supports and prioritizing instruction. These materials include all of the following elements:

  a. embedded and consistent formative assessment practices for content, literacy, and language learning;

  b. varied and multiple means of demonstrating integrated content, literacy, and language learning (e.g., podcast, mock interview, blogpost);

  c. regular monitoring of grade-level reading proficiency;

  d. regular monitoring of oral language development as well as specific, discrete language skills that are assessed within the content and literacy tasks; and

  e. regular monitoring of writing over time (e.g., writing portfolios), including opportunities to demonstrate progress in home language(s) and target language.

- Meaningful Feedback: Instructional materials provide frequent opportunities for feedback to advance content understanding, literacy skills, language development, and metalinguistic awareness, as proven effective by research and as appropriate to the type of literacy instruction. These materials include all of the following elements:

  a. peer and teacher cycles of feedback, including communicating progress with affirming evidence of literacy progress;

  b. normalization of mistake-making and affirmation of effort and growth;

  c. guidance for explicit, timely, informative, and accessible formative feedback to address partial understandings and alternative thinking about tasks, texts, and topics in ways that allow learners to monitor their own progress effectively and to use that information to guide their own effort and practice; and

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14 English Learners Success Forum. (n.d.). ELA guidelines. Retrieved July 11, 2023, from https://www.elsuccessforum.org/ela-guidelines

d. guidance on how and when to collect data, as well as how to respond to specific student strengths and needs.

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EDUCATOR SUPPORTS

To promote facilitation of meaningful learning experiences for all students, instructional materials ensure effective supports for educators. Throughout the instructional materials, explicit tools and resources focus on enhancing educators' depth of literacy knowledge for teaching, using pedagogical content knowledge in planning for instruction, and practicing responsive teaching to build on or extend students' critical thinking. These tools and resources also encourage reflective practice among educators, including the examination of their own identities, and employ research-based practices. In addition, resources are thoughtfully designed for ease of use and fit to community context.

Key Criteria for Educator Knowledge

- **Examination of Self:** Instructional materials support teachers in examining their own identities, biases, and belief systems to help them understand how these factors might influence instructional choices and the lens through which they interpret student thinking. These materials may include reflection prompts, examples of educator thinking, or embedded professional learning.

- **Students' Linguistic and Cultural Assets:** Instructional materials support educators to see and leverage students' linguistic and cultural assets, approaching these assets with a disposition of curiosity and appreciation. These materials include prompts for educators to learn about and integrate the knowledge, strengths, and resources of students, families, and the community — especially those who have been historically marginalized.

- **Supporting Language Development for All Learners:** Instructional materials build educators' understanding of research-based practices to support language development for all learners, especially for multilingual learners and students with diverse learning needs. These materials include all of the following elements:

    a. building of knowledge about how language works and how students' language develops, including oracy and language development standards;

    b. use of home language, translanguaging, and development of cross-linguistic connections to deepen understanding of the linguistic features across languages and registers;

    c. simultaneous development of language, content, and literacy skills, including deepening understanding of instructional strategies that support this goal (e.g., embedding supports for vocabulary and nonlinguistic visual language supports); and

    d. examples of sample student responses within the context of lesson content and task with a range of language proficiency levels.

- **Supporting Literacy Development:** Instructional materials deepen educators' literacy knowledge for teaching through building educators' understanding of research-based

practices to support literacy development. These materials include all of the following elements:

    a. development of word recognition and language comprehension and the metacognitive processes that support the development of these skills; and

    b. progression of writing skill development (i.e., handwriting and spelling to support sentence-, paragraph-, and text-level composition).

- **Text and Topic Knowledge:** Instructional materials support educators to engage students with rich texts and topics. These materials include all of the following elements:

    a. text analysis for anchor texts, including quantitative and qualitative complexity;

    b. considerations for engaging a diverse group of students in anchor text/unit content in inclusive ways (e.g., guidance, explanatory content, teacher notes), including navigating critical conversations to humanize the interactions within literacy work; and

    c. explanations, examples of concepts, and/or additional resources to support teachers in building their own knowledge of the content and topics under study.

Key Criteria for Usability

- **Design and Functionality:** Instructional materials are designed to support ease of student and teacher use. These materials include all of the following elements:

    a. scalability and accessibility and the ability to disseminate the curriculum in a way that ensures equitable student, teacher, and community access;

    b. visually appealing design with an organized and logical format;

    c. appropriate pacing;

    d. clear and concise educator-facing guidance that enables educators to prepare lessons in a timely manner; and

    e. a variety of ways to engage with the content, including leveraging current technology and tools.

- **Adaptability for Context:** Instructional materials contain materials and/or meaningful suggestions for how to adapt for district, school, and/or classroom context. These materials may include varied selections for topics under study; flexibility to modify tasks to connect to local resources, organizations, or issues; or varied pacing suggestions based on number of school days or minutes of instruction.

- **Program Coherence:** Core instructional materials work in concert with (or have the potential to work in concert with) additional supplemental ELA/literacy materials (e.g., interventional materials). These materials include aligned and research-based content and instructional approaches across materials.

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Research & Scholarship Supporting the Framework

A robust research and scholarship base underpins this framework. For more information about research-supported practice, see Student Achievement Partners' [Essential X Equitable Instructional Practice Framework™.](#)

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DRAFT

Why Instructional Materials Matter for Maryland Students

The students of Maryland are a vibrant community of diverse learners, including a growing number of multilingual students and students from various racial and cultural backgrounds.[1] Instructional materials designed to best serve these students must facilitate enriching, culturally responsive, and language-affirming environments for all students.

Students deserve the opportunity to engage with rigorous content that builds a strong foundation for their educational journey and empowers them with essential learning skills. High-quality math instructional materials offer students engagement with worthy and complex tasks and learning experiences that foster critical thinking abilities and language development and amplify student voice and agency. Additionally, these materials prioritize the affirmation of students' cultural and linguistic identities, attending to inclusive learning communities that connect education to their real-world experiences and provide the support and skill to ensure that students with diverse learning needs thrive.

By aligning with college and career readiness standards and research-based approaches, high-quality instructional materials unlock and support knowledge-building that encourages active learning and leads to dynamic demonstrations of knowledge from students. Furthermore, these materials offer support for educators, equipping them with the necessary tools, content knowledge, pedagogical expertise, and research-based practices to effectively engage students and adapt to diverse community and school contexts. With this comprehensive approach, instructional materials in Maryland have the potential to create transformative learning environments that prepare students from kindergarten through graduation for a future of choice and opportunity.

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[1] In 2022, Maryland's student population included 33% Black, 33% White, 22% Latinx, and 7% Asian students, as well as 12% English learners, 12% students with disabilities, and an increasing proportion who face economic challenges ([Maryland State Department of Education](#)).

Document Introduction

This framework serves as a valuable resource for educators and stakeholders across the education sector to identify key criteria in truly high-quality instructional materials. It outlines the essential elements of outstanding curricula and offers clear guidelines on the instructional shifts and educator supports needed to foster meaningful learning experiences for students. To deliver the world-class education that the [Blueprint for Maryland's Future envisions](#), educators and leaders can rely on this framework in service of identifying the research-based, high-quality materials that are necessary to provide students with rigorous instruction, nurture spaces that affirm their cultural and linguistic identities, and ensure their continued progress and success each year.

This framework is grounded in extensive research aimed at defining the content, instructional practice, and instructional design present in high-quality instructional materials. These research-based elements are central to the criteria within this framework and critical to support the kinds of learning experiences that Maryland students deserve.

Despite its strengths as a resource for identifying high-quality instructional materials, there are limitations for how this framework can be used. While the document presents crucial guidelines, it is NOT intended to be exhaustive in addressing all the elements of instructional materials and practices needed to create an equitable experience for students. Additionally, this document is NOT a rubric, meaning it does not provide a checklist or a scoring system for the evaluation of instructional materials. Instead, it offers guidance on the essential components of high-quality materials, encouraging educators to exercise professional judgment and adapt to their specific educational context.

It is also important for educators and leaders to recognize any and all humanizing considerations beyond the framework that may be necessary based on their unique students, classroom contexts, and school/district conditions in their review and selection of high-quality materials. Overall, this framework serves as a roadmap, empowering educators to select and use instructional materials that foster inclusivity, rigor, and relevance, ultimately resulting in enhanced learning outcomes for all students.

DOCUMENT ORGANIZATION

This document, intended for use when considering K–12 mathematics core instructional materials, is organized into four categories (Designed to Affirm Students, Grade-Level and Standards-Aligned, Instructional Design, and Educator Supports), with domains that highlight key criteria in each section.

While specific categories have been included for culturally responsive-sustaining pedagogy and language-affirming instruction, related considerations for affirming students are woven throughout the framework. Similarly, considerations for diverse learning needs and Universal Design for Learning have been embedded throughout to reflect the way that these practices must be interlaced in thinking about content, instructional practice, and support for educators.

 A collection of research and scholarship used to inform this framework is included as an appendix.

Key Criteria for High-Quality Instructional Materials

DESIGNED TO AFFIRM STUDENTS

Affirming students creates opportunities for cultural and linguistic backgrounds to be an asset and a source of validation in the learning experience. In addition to a foundation of grade-level content, high-quality instructional materials must prioritize instructional practices that affirm students' cultural and linguistic backgrounds and support students with a range of diverse learning needs to thrive through mathematics. This support includes developing culturally responsive-sustaining learning communities that center who students are, use mathematics as a tool for civic engagement, and connect learning to the world outside the schoolhouse walls. Mathematics instruction must also intentionally affirm students' languages and language practices through a focus on building upon students' multilingualism, ensuring that texts support disciplinary language development, and designing language objectives that work in concert with content and mathematics learning. Through these instructional choices, materials have the potential to deepen mathematics learning, cultivate a sense of belonging, and develop students' mathematical identities — to see themselves as participants in mathematics.[2]

Key Criteria for Culturally Responsive-Sustaining Instruction[3]

- **Affirmation and Centering of Students:** Instructional materials affirm, engage, and center past and current knowledge of Black/African, Indigenous, Brown, and non-Western conceptions of math and highlight multilingualism and non-Western mathematicians and their discoveries. Instructional materials are designed to encourage students to anchor learning in individual experiences, backgrounds, and cultural knowledge to expand their mathematics knowledge and skills.

- **Mathematics as a Tool for Civic Engagement:** Instructional materials consistently include tasks that prompt students to apply and develop their civic engagement skills and examine social contexts and current events, using mathematics to question the world and the current status quo.

- **Real-World Connections and Relevant Data:** Instructional materials consistently connect with students' lives, their future goals, their communities, and the world and nurture ways to engage in their own communities and beyond. These materials include all of the following elements:

  a. use of mathematical concepts and tasks to connect to current events;

  b. collaborative tasks and/or projects that involve real-world problem-solving through meaningful interactions with peers and their local communities;

  c. structures (e.g., tasks, classroom activities, routines, assignments) to explore mathematical concepts from current events and data that are relevant to students'

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2 Aguirre, J., Mayfield-Ingram, K., & Martin, D. B. (2013). The impact of identity in K-8 mathematics learning and teaching: Rethinking equity-based practices. National Council of Teachers of Mathematics.

3 This conceptualization of culturally responsive-sustaining instruction is built on evidence from its predecessors — culturally relevant, responsive, and sustaining pedagogies. This scholarship underscores the importance of leveraging the diverse backgrounds of students as assets in the classroom that can and should be sustained through intentional instructional design. For more information about relevant scholarship, please see the citations section in the appendix.

lives and communities so that students see themselves in the tasks and understand how the tasks relate to their context and promote a sense of belonging;[4] and

d. teacher guidance to support students in developing mathematical skills and knowledge that are relevant to their academic and professional goals.

Key Criteria for Language Affirming Instruction

- **Multilingualism in Mathematics:** Instructional materials are deliberately designed to honor and

    a. build upon students' language(s) as an asset, encouraging students to use their linguistic repertoire to communicate with one another via reading, writing, speaking, and listening while engaging in mathematical learning. These materials include all of the following elements:

    b. providing facilitation and engagement support for students to communicate as they do the math, make meaning, and collaboratively solve problems;

    c. building mathematical language and content in English and home language(s), including use of social and academic vocabulary, through translanguaging so all students express themselves in a language they are comfortable with while working to learn mathematical content and meet language objectives in the target language;[5] and

    d. making cross-linguistic connections, including identifying and comparing similarities and differences between home language(s) and English (e.g., cognates) or registers and registers of instruction.

- **Language Objectives:** Instructional materials provide explicit alignment between language and content objectives to ensure that the language goals embedded within the standards are being attended to in every lesson. This includes language objectives for both expressive (writing and speaking) and receptive (listening and reading) communication that are aligned to the math learning goal.

- **Cognitively Demanding Mathematics:** Instructional materials provide cognitively demanding mathematics tasks that offer multiple research-based entry points and linguistic scaffolds to meet the needs of multilingual learners and students with diverse learning needs.

- **Reasoning in Multiple Ways:** Instructional materials include tasks that invite students to share their reasoning in multiple ways and guidance (e.g., annotations for teachers facilitating the tasks) about encouraging students to transverse between and among different representations (e.g., oral language and pictorial representations, written word and math tools).

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4 Tate, W. F. (1995). Returning to the root: A culturally relevant approach to mathematics pedagogy. *Theory Into Practice*, *34*(3), 166–173.

5 García, O., Johnson, S. I., & Seltzer, K. (2017). The translanguaging classroom: Leveraging student bilingualism for learning. Caslon. For more, see Translanguaging Strategies, English Learner Success Forum.

GRADE-LEVEL AND STANDARDS ALIGNED

Grade-level, standards-aligned content serves as a necessary foundation for equitable student experiences in the classroom. Engaging with this rigorous content from kindergarten through graduation sets students on a path to empowered lives, and instructional materials must be designed so that all students have access to this essential work. This includes ensuring all students are empowered by secure engagement with the most important and applicable mathematics of each grade or course; are positioned as mathematical leaders and doers in classrooms; leverage high-quality questions and tasks to practice and tune Standards of Mathematical Practice with content standards, develop their conceptual understanding, procedural skill and fluency, and application; and develop language along with mathematical content knowledge.

Key Criteria for Focus on Essential Mathematics

- **Essential Mathematics:** Instructional materials prioritize the most important and applicable concepts, knowledge, and mathematical skills. These materials include all of the following elements:

  a. a focus on the major work of the grade (K–8)[6] and Essential Concepts from *Catalyzing Change in High School Mathematics*[7] (see appendix); and

  b. guidance for students and teachers to use the materials as designed and spend most of their time focused on the essential mathematics of the grade/course.

Key Criteria for Coherence

- **Consistent Progressions:** Instructional materials are consistent with the progressions in college and career-ready standards. These materials include all of the following elements:

  a. content progressions based on the grade-by-grade and course-by-course progressions in college and career-ready standards;

  b. extensive work for all students in grade-level or high school course-level problems; and

  c. grade-level or high school course-level concepts that are explicitly related to prior knowledge from earlier grades or courses.

- **Coherent Connections:** Instructional materials foster coherence through connections within a single grade, or course, where appropriate and where required by college and career-ready standards. These materials include all of the following elements:

  a. supporting content to further engage students in the major work of the grade in K–8 and supporting content to further engage students in Essential Concepts in high school; and

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6 National Governors Association, Council of Chief State School Officers, Achieve, & National Association of State Boards of Education. (2013, April 9). *K–8 publishers' criteria for the Common Core State Standards for Mathematics.* https://www.thecorestandards.org/wp-content/uploads/Math_Publishers_Criteria_K-8_Spring_2013_FINAL1.pdf

7 National Council of Teachers of Mathematics. (2018). Catalyzing change in high school mathematics: Initiating critical conversations.

      b.   preservation of the focus, coherence, and rigor of college and career-ready standards even when targeting specific objectives.

Key Criteria for Rigor and Balance

- **Rigor and Balance:** Instructional materials reflect the aspect(s) of rigor — conceptual understanding, procedural skill and fluency, and/or application — called for by the standards.[8] These materials include all of the following elements:

      a.   development of students' conceptual understanding of key mathematical concepts, especially where called for in specific content standards or cluster headings;

      b.   attention throughout the year to procedural skill and required fluencies of each grade-level[9]; and

      c.   sufficient time for teachers and students to use the materials as designed and work with applications that engage students in problem-solving.

Key Criteria for Mathematical Practices

- **Practice-Content Connections:** Instructional materials meaningfully integrate Standards for Mathematical Practice with content standards and attend to the full meaning of each practice standard in tasks and problems.[10]

- **Emphasis on Mathematical Reasoning:** Instructional materials support the standards' emphasis on mathematical reasoning through indicating and providing guidance about the opportunities for discourse, communication, problem-solving, and modeling.

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INSTRUCTIONAL DESIGN

Instructional materials must attend to research-based instructional practices that support meaningful engagement for all students to be deemed high quality. It is through this intentional design that instructional materials contribute to learning communities in which students unlock knowledge, engage with tasks and peers as mathematicians, regularly demonstrate their learning, and experience joy in the math classroom. This type of learning community builds students' mathematical identities, allowing students to see themselves and their peers as mathematical experts, thinkers, and doers in the classroom.

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[8] The three aspects of rigor are not always separate in materials. (Conceptual understanding and fluency go hand in hand, fluency can be practiced in the context of applications, and brief applications can build conceptual understanding.) Nor are the three aspects of rigor always together in materials. (Fluency requires dedicated practice. Rich applications cannot always be shoehorned into the mathematics topic of the day. And conceptual understanding will not always come along unless explicitly taught.)

[9] https://achievethecore.org/category/774/mathematics-focus-by-grade-level

[10] National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). Common Core State Standards for Mathematics. https://learning.ccsso.org/wp-content/uploads/2022/11/Math_Standards1.pdf

Key Criteria for Student Agency

- **Metacognitive Processes:** Instructional materials develop students' metacognitive skills to promote understanding of math concepts by directly teaching and supporting students to monitor understanding and progress over time. These materials include all of the following elements:

    a. setting goals, self-monitoring growth, and reflecting on the impact of students' choices and ongoing development as mathematical doers, critical thinkers, and communicators;

    b. providing explicit practices to develop students' metalinguistic awareness around how language works in mathematics, language use, and choices connected to mathematical ideas;

    c. modeling and developing strategies that support students in making their thinking visible through speaking, writing, or drawing their developing understanding; and

    d. supporting students with diverse learning needs in developing metacognitive strategies.

- **Choice:** Instructional materials prompt teachers to provide students ample time to explore math concepts, during which students are given opportunities to make choices about how to spend time, whom to spend it with, and what materials are used.

- **Multiple Entry Points to Complex Tasks:** Instructional materials include tasks that are complex, with multiple entry points (e.g., allow for multiple solution strategies, encourage use of multiple representations) that promote collaboration and different ways of thinking and explaining.

- **Authentic Engagement as a Mathematician:** Instructional materials promote productive struggle and the mathematical modeling process through quality math tasks that are sequenced to build conceptual understanding and procedural skill and fluency, prioritize inquiry, provide opportunities to take risks, allow for rough draft thinking and multiple approaches, invite the use of math tools, and use mistakes for learning so that students engage in collaborative learning.

- **Collaborative Learning:** Instructional materials engage all students in collaborative learning through a variety of research-based routines, structures, and tasks that allow for whole-group, small-group, and independent thinking. Materials explicitly plan for students to demonstrate their curiosity and share their tentative thinking; ask questions; and adjust their understanding by listening to and building on one another's shared ideas.

Key Criteria for Monitoring Progress and Supporting Students

- **Supports and Scaffolds[11]:** Instructional materials are designed to support a variety of student strengths and diverse learning needs in ways that are supported by research and maintain

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[11] Thoughtfully designed questions and tasks that provide access to grade-level, culturally responsive-sustaining, and language-affirming experiences for students are one form of support for students and are addressed in other sections of this framework.

attention to grade-level content alongside practice standards. These materials include all of the following elements:

    a. scaffolds and supports that are designed based on mathematical learning progressions and the coherence of math concepts across and within grades and courses;

    b. guidance on identifying scaffolds and appropriate supports that build on students' mathematical thinking, ideas, and experiences; and

    c. content-specific guidance on identifying and addressing potential individual student needs so that supports, scaffolds, and extensions can be effectively differentiated, including adjustments to content, process, or product.

- **Simultaneous Mathematical Meaning-Making and Language Development:** Instructional materials include intentional language learning opportunities alongside appropriate, research-based supports for multilingual learners and students with diverse learning needs to develop mathematical meaning-making and language simultaneously. Materials include questions for students to raise metalinguistic awareness of how language works in math and integrate language standards alongside mathematical content standards.[12]

- **Relevant Contexts:** Instructional materials provide contextualized tasks and problems — and opportunities to contextualize tasks and problems — that incorporate students' everyday lives, families, and communities' ways of knowing, including their language and culture.[13]

- **Mathematical Discourse:** Instructional materials are designed to allow for students to shape the mathematical discourse by specifying opportunities for students to listen to, share with, and build on peer mathematical thinking.

- **Practice Opportunities and Resources:** Instructional materials include well-designed, grade-level practice opportunities that focus on essential mathematics and align within the progression. These materials include all of the following elements:

    a. a variety of modes and meaningful contexts (e.g., games, puzzles, whiteboards, card sorts, interactive problem-solving);

    b. low floor, high ceiling — a flexible range of access and challenge that allows students to engage and practice across a spectrum of problems;

    c. purpose over quantity — intentional and clear connections to the current learning progression and involvement of students in reflection and self-assessment through the provision of solutions (calculations, representations, and/or writing) with reflection prompts to mark progress toward goals; and

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12 Moschkovich, J. (2012). Mathematics, the Common Core, and language: Recommendations for mathematics instruction for ELs aligned with the Common Core. https://ul.stanford.edu/sites/default/files/resource/2021-12/02-JMoschkovich%20Math%20FINAL_bound%20with%20appendix.pdf

13 Celedón-Pattichis, S., Borden, L. L., Pape, S. J., Clements, D. H., Peters, S. A., Males, J. R., ... & Leonard, J. (2018). Asset-based approaches to equitable mathematics education research and practice. Journal for Research in Mathematics Education, 49(4), 373–389.

    d.   fluency — design that supports the deep connections between conceptual understanding and fluency.

- **Progress Monitoring:** Instructional materials embed frequent opportunities for students to demonstrate understanding of grade-level mathematical concepts using their existing language resources.[14] They also embed resources and frequent opportunities to monitor and respond to students' understanding of grade-level mathematics. Materials demonstrate how to diagnose critical student needs and draw clear connections to integrating supports and prioritizing instruction. These materials include all of the following elements:

    a.   embedded and consistent formative assessment practices for mathematical content, mathematical literacy, and language learning;

    b.   varied ways and multiple means of using formative data (including opportunities, beyond calculation alone, to explain, write, represent, self-reflect, and connect ideas) to demonstrate students' mathematical thinking and to make instructional decisions based on students' mathematical thinking; and

    c.   regular monitoring of grade-level mathematics development.

- **Meaningful Feedback:** Instructional materials provide frequent opportunities and facilitation notes on how to provide meaningful feedback to advance mathematical understanding and language. These materials include all of the following elements:

    a.   peer and teacher cycles of feedback, including communicating progress with affirming evidence of mathematical progress;

    b.   normalization of mistake-making and affirmation of effort and growth;

    c.   guidance for explicit, timely, informative, and accessible formative feedback to address partial solutions and alternative thinking in ways that allow learners to monitor their own progress effectively and to use that information to guide their own effort and practice without sacrificing their math confidence;

    d.   focus among students on sense-making and/or metacognitive processes; and

    e.   guidance on how and when to collect data, as well as how to respond to specific student strengths and needs.

EDUCATOR SUPPORTS

To promote facilitation of meaningful learning experiences for all students, instructional materials ensure effective support for educators. Throughout the instructional materials, explicit tools and resources focus on enhancing educators' depth of mathematical knowledge for teaching, using pedagogical content knowledge in planning for instruction, and practicing responsive teaching to build on or extend students' mathematical thinking. These tools and resources also encourage reflective practices among educators, including the examination of their own identities as well as identifying

14 English Learners Success Forum. (n.d.). Math guidelines. Retrieved July 11, 2023, from www.elsuccessforum.org/math-guidelines

places where teacher actions may contribute to building positive mathematical identities in their students. In addition, resources are thoughtfully designed for ease of use and fit to community context.

Key Criteria for Educator Knowledge

- **Examination of Self:** Instructional materials support teachers in examining their own identities, biases, and belief systems to help them understand how these factors might influence instructional choices and the lens through which they interpret student thinking. These materials may include reflection prompts, examples of educator thinking, or embedded professional learning.

- **Students' Linguistic and Cultural Assets:** Instructional materials support educators to leverage students' linguistic and cultural assets, approaching these assets with a disposition of curiosity and appreciation. These materials include prompts for educators to learn about and integrate the knowledge, strengths, and resources of students, families, and the community — especially those who have been historically marginalized.[15] This includes connecting to and bringing in math topics and ideas from the backgrounds of students, drawing from students' home and everyday language to learn mathematics, and building and strengthening relationships that elicit and center these assets to bridge and propel relevance of learning. [16]

- **Supporting Language Development for all Learners:** Instructional materials build educators' understanding of research-based practices to support language development for all learners, especially for multilingual learners and students with diverse learning needs, including (all of the following):

    a. developing explicit language objectives for communication about mathematics[17];

    b. building knowledge of students' language development and language development standards, as connected to the mathematics of the lesson or unit;

    c. enacting math language routines[18] to foster mathematical discourse and communication amongst students;

    d. providing examples of sample student responses, in the context of actual mathematics tasks, with a range of language proficiency[19] ;

    e. suggestions of ways to capture student progress from everyday language to language for more formal academic and mathematical purposes; and

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15 Aguirre, J., Mayfield-Ingram, K., & Martin, D. B. (2013). The impact of identity in K-8 mathematics learning and teaching: Rethinking equity-based practices. National Council of Teachers of Mathematics.

16 Moschkovich, J. (2013). Principles and guidelines for equitable mathematics teaching practices and materials for English language learners. Journal of Urban Mathematics Education, 6(1), 45–57.

17 Gottlieb, M., & Ernst-Slavit, G. (2014). Academic language in diverse classrooms: Definitions and contexts. Corwin.

18 English Learners Success Forum. (n.d.). Math guidelines. Retrieved July 11, 2023, from www.elsuccessforum.org/math-guidelines

19 English Learners Success Forum. (n.d.). Math guidelines. Retrieved July 11, 2023, from www.elsuccessforum.org/math-guidelines

f.   guidance on what to look for, listen for, questions to ask, and/or feedback to give when supporting multilingual learners.

- **Supporting Mathematical Development:** Instructional materials deepen educators' mathematical knowledge for teaching through building educators' understanding of research-based practices to support routines for reasoning, inquiry-based approaches, and structures that develop and affirm positive math mindsets during the process of supporting all students in understanding grade-level mathematics. These materials include all of the following elements:

  a.   teacher guidance on multiple math strategies and the ways in which those approaches represent different, but equally valid, conceptions of the same mathematical idea(s); and

  b.   guidance on what to look for, what to listen for, questions to ask, and/or feedback to give so that mathematical inquiry and reasoning is student led.

- **Mathematical Discourse:** Instructional materials are designed to foster educator facilitation of mathematical discourse shaped by students through specifying opportunities for students to listen to, share with, and build on peer mathematical thinking. These materials include guidance on structuring student activities that have all of the following elements:

  a.   sharing their own mathematical thinking with their peers;

  b.   engaging with their peers' mathematical thinking;

  c.   reflecting on and articulating their own understanding of their peers' mathematical perspectives;

  d.   building on and extending their peers' mathematical ideas; and

  e.   providing feedback to their peers on their mathematical reasoning.

- **Collectivist Approach:** Instructional materials provide teacher guidance that counters traditional math structures of individualism and competition by structuring the doing of mathematics through collaboration.

Key Criteria for Usability

- **Design and Functionality:** Instructional materials are designed to support ease of student and teacher use. These materials include all of the following elements:

  a.   scalability and accessibility and the ability for the curriculum to be disseminated in a way that ensures equitable student, teacher, and community access;

  b.   visually appealing design with an organized and logical format;

  c.   appropriate pacing;

  d.   clear and concise educator-facing guidance that enables educators to prepare lessons in a timely manner; and

  e.   a variety of ways to engage with the content, including leveraging current technology and tools (e.g., online graphing calculators, digital manipulatives).

- **Adaptability for Context:** Instructional materials contain materials and/or meaningful suggestions for how to adapt for district, school, and/or classroom context. These materials may include varied selections for topics under study; flexibility to modify tasks to connect to local resources, organizations, or issues; or varied pacing suggestions based on number of school days or minutes of instruction.

- **Program Coherence:** Core instructional materials guide the use of additional supplemental mathematics materials (e.g., interventional materials) in content and approach. Use of supplemental materials supports students in accessing the grade-level mathematics content that is concurrently happening in core instruction.

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Table 1. Progress to Algebra in Grades K–8

K	1	2	3	4	5	6	7	8
Know number names and the count sequence	Represent and solve problems involving addition and subtraction		Represent & solve problems involving multiplication and division	Use the four operations with whole numbers to solve problems	Understand the place value system	Apply and extend previous understandings of multiplication and division to divide fractions by fractions	Apply and extend previous understanding of operations with fractions to add, subtract, multiply, and divide rational numbers	Work with radical and integer exponents
Count to tell the number of objects	Understand and apply properties of operations and the relationship between addition and subtraction	Represent and solve problems involving addition and subtraction	Understand properties of multiplication and the relationship between multiplication and division	Generalize place value understanding for multi-digit whole numbers	Perform operations with multi-digit whole numbers and decimals to hundredths	Apply and extend previous understandings of numbers to the system of rational numbers	Analyze proportional relationship and use them to solve real-world and mathematical problems	Understand the connections between proportional relationships, lines, and linear equations**
Compare numbers								
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from	Add and subtract within 20	Add and subtract within 20	Multiply & divide within 100	Use place value understanding and properties of operations to perform multi-digit arithmetic	Use equivalent fractions as a strategy to add and subtract fractions	Understand ratio concepts and use ratio reasoning to solve problems	Use properties of operations to generate equivalent expressions	Analyze and solve linear equations and pairs of simultaneous linear equations
Work with numbers 11-19 to gain foundations for place value	Work with addition and subtraction equations	Understand place value	Solve problems involving the four operations, and identify & explain patterns in arithmetic	Extend understanding of fraction equivalence and ordering	Apply and extend previous understandings of multiplication and division to multiply and divide fractions	Apply and extend previous understandings of arithmetic to algebraic expressions	Solve real-life and mathematical problems using numerical and algebraic expressions and equations	Define, evaluate, and compare functions
	Extend the counting sequence	Use place value understanding and properties of operations to add and subtract	Develop understanding of fractions as numbers	Build fractions from unit fractions by applying and extending previous understandings of operations	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition	Reason about and solve one-variable equations and inequalities		Use functions to model relationships between quantities
	Understand place value	Measure and estimate lengths in standard units	Solve problems involving measurement and estimation of intervals of time, liquid volumes, & masses of objects	Understand decimal notation for fractions, and compare decimal fractions	Graph points in the coordinate plane to solve real-world and mathematical problems*	Represent and analyze quantitative relationships between dependent and independent variables		
	Use place value understanding and properties of operations to add and subtract	Relate addition and subtraction to length	Geometric measurement: understand concepts of area and relate area to multiplication and to addition					
	Measure lengths indirectly and by iterating length units							

*Indicates a cluster that is well thought of as part of a student's progress to algebra, but that is currently not designated as Major by one or both of the assessment consortia in their draft materials. Apart from the asterisked exception, the clusters listed here are a subset of those designated as Major in both of the assessment consortia's draft documents. ** Depends on similarity ideas from geometry to show that slope can be defined and then used to show that a linear equation has a graph which is a straight line and conversely.

K–8 Publishers' Criteria for the Common Core State Standards for Mathematics, 9 Apr. 2013, achievethecore.org/content/upload/Math_Publishers_Criteria_K-8_Spring_2013_FINAL.pdf.

Research & Scholarship Supporting the Framework

A robust research and scholarship base underpins this framework. For more information about research-supported practice, see Student Achievement Partners' Essential X Equitable Instructional Practice Framework™.

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Social Studies High-Quality Instructional Materials Selection Framework
Office of Teaching and Learning

Why Instructional Materials Matter for Maryland Students

The students of Maryland are a vibrant community of diverse learners, including a growing number of multilingual students and students from various racial and cultural backgrounds.[1] Instructional materials designed to best serve these students must facilitate enriching, culturally responsive, and language-affirming environments for all students.

Students deserve the opportunity to engage with rigorous content that builds a strong foundation for their educational journey and empowers them with essential learning skills. High-quality instructional materials offer students engagement with worthy and complex texts, tasks, and learning experiences that foster critical thinking abilities and language development and amplify student voice and agency. Additionally, these materials prioritize the affirmation of students' cultural and linguistic identities, attending to inclusive learning communities that connect education to their real-world experiences and provide the support and skill to ensure that students with diverse learning needs thrive.

By aligning with college and career readiness standards and research-based approaches, high-quality instructional materials unlock and support knowledge-building that encourages active learning and leads to dynamic demonstrations of knowledge from students. Furthermore, these materials offer support for educators, equipping them with the necessary tools, content knowledge, pedagogical expertise, and research-based practices to effectively engage students and adapt to diverse community and school contexts. With this comprehensive approach, instructional materials in Maryland have the potential to create transformative learning environments that prepare students from kindergarten through graduation for a future of choice and opportunity.

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[1] In 2022, Maryland's student population included 33% Black, 33% White, 22% Latinx, and 7% Asian students, as well as 12% English learners, 12% students with disabilities, and an increasing proportion who face economic challenges (Maryland State Department of Education).

Document Introduction

This framework serves as a valuable resource for educators and stakeholders across the education sector to identify key criteria in truly high-quality instructional materials. It outlines the essential elements of outstanding curricula and offers clear guidance on the instructional shifts and educator supports needed to foster meaningful learning experiences for students. To deliver the world-class education that the [Blueprint for Maryland's Future](#) envisions, educators and leaders can rely on this framework in service of identifying the research-based, high-quality materials that are necessary to provide students with rigorous instruction, nurture spaces that affirm their cultural and linguistic identities, and ensure their continued progress and success each year.

This framework is grounded in extensive research aimed at defining the content, instructional practice, and instructional design present in high-quality instructional materials. These research-based elements are central to the criteria within this framework and critical to support the kinds of learning experiences that Maryland students deserve.

Despite its strengths as a resource for identifying high-quality instructional materials, there are limitations for how this framework can be used. While the document provides crucial guidelines, it is NOT intended to be exhaustive in addressing all the elements of instructional materials and practices needed to create an equitable experience for students. Additionally, this document is NOT a rubric, meaning it does not provide a checklist or a scoring system for evaluation of instructional materials. Instead, it offers guidance on the essential components of high-quality materials, encouraging educators to exercise professional judgment and adapt to their specific educational context.

It is also important for educators and leaders to recognize any and all humanizing considerations beyond the framework that may be necessary based on their unique students, classroom contexts, and school/district conditions in their review and selection of high-quality materials. Overall, this framework serves as a roadmap, empowering educators to select and use instructional materials that foster inclusivity, rigor, and relevance, ultimately resulting in enhanced learning outcomes for all students.

DOCUMENT ORGANIZATION

This document, intended for use when considering K–12 social studies core instructional materials, is organized into four categories (Designed to Affirm Students, Grade-Level and Standards-Aligned, Instructional Design, and Educator Supports), with domains that highlight key criteria within each section.

While specific categories have been included for culturally responsive-sustaining pedagogy and language-affirming instruction, related considerations for affirming students are woven throughout the framework. Similarly, considerations for diverse learning needs and Universal Design for Learning have been embedded throughout to reflect the way that these practices must be interlaced in thinking about content, instructional practice, and support for educators.

A collection of research and scholarship used to inform this framework is included as an appendix.

Key Criteria for High-Quality Instructional Materials

DESIGNED TO AFFIRM STUDENTS

Affirming students creates opportunities for cultural and linguistic backgrounds to be an asset and a source of validation in the learning experience. In addition to a foundation of grade-level content, high-quality instructional materials must prioritize instructional practices that affirm students' cultural and linguistic backgrounds and support students with a range of diverse learning needs to thrive through Social Studies. This support includes developing culturally responsive-sustaining learning communities that center who students are, use literacy as a tool for civic engagement, and connect learning to the world outside the schoolhouse walls. Social studies instruction must also intentionally affirm students' languages and language practices through a focus on building upon students' multilingualism, ensuring that texts support language development, and designing language objectives that work in concert with content and literacy learning. Through these instructional choices, materials have the potential to deepen learning, cultivate a sense of belonging and recognize who students are and will grow to be.

Key Criteria for Culturally Responsive-Sustaining Instruction

- **Affirmation and Centering of Students:** Instructional materials affirm, engage, and center past and current knowledge of Black/African, Indigenous, Brown, and non-Western perspectives and highlight multilingualism. Instructional materials are designed to encourage students to anchor learning in their individual experiences, backgrounds, and cultural knowledge to support and further literacy work. These materials include all of the following elements:

  a. regular opportunities for students to share who they are and what they know, bringing their unique funds of knowledge to their literacy experiences;[2]

  b. reflection and conversation within the context of the text or topic under study that affirm students' identities and experiences;

  c. tasks that support students to express (orally, in writing, in media, and in other formats) how texts and topics under study do or do not affect their understanding of the world; and

  d. tasks that require students to integrate what they have read and/or learned from others with their own knowledge and synthesize ideas across texts.

- **Social Studies as a Tool for Civic Engagement:** Instructional materials consistently use texts and tasks that prompt students to apply the knowledge of disciplinary concepts and tools to develop their civic engagement skills, examine current events, build authentic inquiries, and take informed action. These materials include all of the following elements:

  a. opportunities for students to read, write, listen, and speak in an effort to think critically about the content/perspective of the text or resources;

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2 Moll, L. C., Amanti, C., Neff, D., & González, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. Theory Into Practice, 31(2), 132–141.

      b.   opportunities for students to apply disciplinary knowledge, skills, and perspectives to inquire about problems involved with public issues;

      c.   attention to historical and social contexts in texts; and

      d.   opportunities for critically examining texts for influence, bias, and diversity of perspectives and for considering whose voice is elevated and whose is absent.

- **Real-World Connections:** Instructional materials consistently connect with students' lives, their future goals, their communities, and world and nurture ways for students to engage in their own communities and beyond. These materials include all of the following elements:

      a.   use of historical sources and disciplinary tasks to connect to current events;

      b.   engagement in collaborative tasks and/or projects that involve real-world problem-solving through meaningful interactions with peers and their local communities; and

      c.   connections between developing literacy skills and knowledge and students' academic and personal goals.

Key Criteria for Language Affirming Instruction

- **Multilingualism in Social Studies:** Instructional materials are deliberately designed to support multilingualism with a specific focus on building disciplinary-specific thinking skills (corroboration, sourcing, contextualization) while encouraging students to leverage their linguistic repertoire to communicate with one another via reading, writing, speaking, and listening. These materials include all of the following elements:

      a.   promoting sustained oral and written communication, including explicit encouragement to use a range of language practices and registers and to use their full language repertoire through translanguaging so all students express themselves in a language they are comfortable with while working to learn literacy content and meet language objectives in the target language;

      b.   building vocabulary and understanding of new concepts in English and home language(s), including use of social and academic vocabulary; and

      c.   making translanguaging connections, such as by making connections between students' home language(s) or register and the language or register of instruction (e.g., cognates, academic language registers).[3]

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[3] García, O., Johnson, S. I., & Seltzer, K. (2017). The translanguaging classroom: Leveraging student bilingualism for learning. Caslon. For more, see Translanguaging Strategies, English Learner Success Forum.

GRADE-LEVEL AND STANDARDS ALIGNED

Grade-level, standards-aligned content serves as a necessary foundation for equitable student experiences in the classroom. Engaging with this rigorous content from kindergarten through graduation sets students on a path to empowered lives, and instructional materials must be designed so that all students have access to this essential literacy work. The ideas, concepts, skills, and understandings gained in the social studies disciplines prepare young people to be more effective citizens and provide students with the tools to understand, interpret, and effectively meet the challenges of the 21st century. In social studies, learners should be engaged in skill-based inquiry arcs (focused on evaluating evidence, questioning, and communicating conclusions) and academic concepts and approaches that help to organize and make sense of disciplinary content and knowledge. This includes ensuring that all students engage with worthy texts and resources, tackle high-quality questions and tasks, develop their oral language and vocabulary, and pursue a volume of writing to express their learning and ideas to become independent readers and learners.

Key Criteria for Alignment with the Maryland Social Studies Standards (MSSS)

- **Inquiry as a Core Tenet:** Instructional materials reflect the idea that inquiry is the core tenet of effective social studies instruction. Further, materials focus on the interrelated enduring understandings, concepts, and skills from the core social studies disciplines (civics, economics, geography, and history). The instructional materials also contain clear opportunities to practice asking questions, investigate essential questions, and gather relevant evidence to develop claims. These materials include all of the following elements:

  a. content of the Maryland Social Studies Frameworks & Standards (MSSFS);

  b. investigation of compelling and supporting questions in a structured way;

  c. units that build toward taking informed action and provide students with an opportunity to apply their learning to real-world challenges;

  d. explicit instruction designed in ways that are clear and authentic;

  e. explicit opportunities for teachers and students to develop and plan inquiry arcs; and

  f. lesson objectives aligned to grade-appropriate K–12 college- and career-ready literacy standards.

- **Disciplinary Content Fluency:** Instructional materials contain accurate, detailed content with a variety of culturally responsive sources and abundant, well-designed practice opportunities along with supporting resources that align with the sequence of the MSSFS. These materials include all of the following elements:

  a. lessons and units that build disciplinary knowledge and skills through the evaluation of sources and evidence and reflect the practice of social scientists; and

  b. authentic opportunities to build content knowledge and disciplinary skills across units in history, civics, geography, and economics.

- **Evaluation of Sources and Leveraging of Evidence:** Instructional materials focus in particular on opportunity for source evaluation and the use of evidence to support claims. Materials contain systematic and supportive practice opportunities for students to investigate how the reliability of a document can be affected by the circumstances under which it was created.

Further, instructional materials provide systematic opportunities for learners to gather relevant information from multiple sources while developing claims and counterclaims.

Key Criteria for Text & Resource Selection

- **Grade-Level Texts:** Instructional materials ensure that all students have extensive opportunities to actively engage with grade-level texts. These core texts for instruction are appropriately complex for the grade (based on quantitative and qualitative features) to build students' ability to read closely.1 These materials include opportunities to engage with longer primary, secondary, and historiographical works across all elementary and secondary levels. In early elementary grades, the texts are used for reading aloud.

- **Supportive Texts and Resources:** Instructional materials incorporate supportive texts and resources. These materials include all of the following elements:

  a. texts at a variety of complexity levels from students' home language that are sequenced around knowledge-building topics/themes to support of students' access to grade-level texts;

  b. a range of knowledge-focused topically connected multimedia and art resources (e.g., videos, visual art, music, virtual museums or galleries); and

  c. authentic texts that have opportunities for rich vocabulary and syntax to support language development.

Key Criteria for Compelling Questions and Tasks

- **Text Based and Aligned to Standards and MSSFS:** Instructional materials include text-specific questions, discussion prompts, essential questions, and tasks to support students' access to primary and secondary sources. These materials include all of the following elements:

  a. alignment to the essential questions embedded within the MSSFS;

  b. attention to each text's particular qualitative complexities (i.e., meaning/purpose, structure, language, knowledge demands);

  c. ways to spur the analytical thinking required by college- and career-ready standards at each grade level (i.e., attention to key ideas, details, craft, structure); and

  d. use of the origin, authority, structure, context, and collaborative value of the sources to guide the selection of evidence from multiple sources.

- **Intentional Sequencing:** Instructional materials sequence essential questions, text-based questions, discussion prompts, and tasks to support students in building enduring understandings targeted in the MSSFS. These materials include all of the following elements:

  a. building from students' funds of knowledge;4

  b. attending to the words, phrases, and sentences (including syntax) in texts;

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4 Moll, L. C., Amanti, C., Neff, D., & González, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. Theory Into Practice, 31(2), 132–141.

    c. embedding checks for understanding (e.g., questions, tasks) of the text, topic, or literacy skill under study to elicit evidence of student learning;

    d. engaging in close reading of especially complex or historically significant sections of text;

    e. building mental models of texts as students read; and

    f. integrating understandings across multiple sources.

Key Criteria for Volume, Quality, and Range of Writing

- **Prominent, Authentic Writing Opportunities:** Instructional materials provide frequent opportunities for students to write, which are connected to taught skills, texts, and topics under study. These materials include all of the following elements:

    a. conducting short, focused research projects;

    b. crafting prose, sentences, paragraphs, and texts that allow students to communicate information and their ideas through multiple means of expression;

    c. constructing explanations using reasoning, correct sequence, examples, and details with relevant information and data while acknowledging the strengths and weaknesses of the explanations;

    d. refining claims and counterclaims attending to precision, significance, and knowledge conveyed through the claim; and

    e. identifying evidence that draws information directly and substantially from multiple sources to detect inconsistencies in evidence to revise and strengthen claims.

- **Explicit Instruction:** Instructional materials include attending to the discrete disciplinary-aligned skills of social studies-aligned writing. These materials include all of the following elements:

    a. explicit instruction on paragraph and text structure (e.g., via structure-focused mnemonic devices, graphic organizers);

    b. use of relevant tools needed for access to effective construction and composition of writing;

    c. grammar/usage instruction in and out of context; and

    d. attention to the writing process and language development alongside development of writing skills.

- **Varied Writing Experiences:** Instructional materials address different types of writing (i.e., on demand, process, research) and meet college- and career-ready expectations for writing across genres.5 These materials include a focus on argumentative, informative, and blended forms of writing.

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5 English Learner Success Forum. (n.d.). ELA guidelines: Benchmark 1. https://www.elsuccessforum.org/ela-guidelines

Key Criteria for Speaking, Listening, and Oral Language Development

- **Integrated Oral Language Development:** Instructional materials regularly integrate discipline-specific oral language, writing, reading, and discussion about grade-level texts and social studies topics.6 These materials include all of the following elements:

  a. attention to meaning and oral language development within disciplinary instruction;

  b. writing activities that engage students in discussion as part of the writing process;7

  c. use of expressive language (i.e., speaking, writing) with increasingly complex language and syntax, demonstrating growing proficiency in the language of instruction;

  d. activity organizers that are aligned to the text structure of primary and secondary sources;

  e. glossaries that, when possible, include student home languages; and

  f. explicit connections between language and content objectives.

- **Prominent, Authentic Discourse Opportunities:** Instructional materials include frequent opportunities for students to discuss texts and topics under study. This academic discourse simultaneously builds knowledge, vocabulary, and language skills to express ideas and comprehension. These discourse opportunities include prompts that are explicitly connected to various historical sources (primary and/or secondary documents: text, speech, visual arts, music).

- **Vocabulary Building:** Instructional materials include explicit and research-based teaching of discipline-specific and text-based vocabulary, including special attention to academic and content-based vocabulary. These materials include all of the following elements:

  a. practice of newly taught words in a variety of modes (i.e., orally, in writing), including through multiple relevant examples that support students making connections with words;

  b. student-friendly definitions;

  c. visual representations; and

  d. encouragement for the use, review, and assessment of targeted words throughout the unit.

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6 English Learners Success Forum. (n.d.). ELA guidelines. Retrieved July 11, 2023, from https://www.elsuccessforum.org/ela-guidelines

7 English Learners Success Forum. (n.d.). ELA guidelines. Retrieved July 11, 2023, from https://www.elsuccessforum.org/ela-guidelines

INSTRUCTIONAL DESIGN

Instructional materials must attend to research-based instructional practices that support meaningful engagement for all students to be deemed high quality. It is through this intentional design that these resources contribute to learning communities in which students unlock knowledge; are authentically engaged as readers, writers, and thinkers; have the support they need; and regularly demonstrate their learning in dynamic ways. This type of learning community builds students' literacy identities and experiences of joy in the literacy classroom.

Key Criteria for Building Knowledge & Skills

- **Knowledge-Building Focus:** Instructional materials center on building knowledge through engaging, inquiry-based investigations about civics, people of the nations and world, geography, economics, and history. Units feature regular interaction with, but are not limited to, knowledge-rich texts, data sets, and simulations. Literacy skills and strategies are primarily taught and used in service of building disciplinary knowledge through reading, writing, speaking, and listening. These materials include all of the following elements:

    a. scaffolding of the degree of difficulty or complexity within activities;

    b. opportunities to generalize learning to new situations; and

    c. support for prior knowledge and key ideas.

- **Inclusive Content:** Instructional materials for key areas of the MSSS are expansive and representative of diverse identities, including content from a variety of community, cultural, and language backgrounds within and across school years. At each grade level, these materials include all of the following elements:

    a. elevation of multiple perspectives;

    b. counternarratives that challenge dominant narratives;

    c. inspiration for reflection, motivation, or civic engagement in response to ideas and content presented; and

    d. engagement of students in learning about the joy, resilience, determination, ingenuity, and leadership of all groups and communities, including historically marginalized communities.

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- **Historical Thinking Skills:** Instructional materials include the synthesis of historical thinking skills throughout, including opportunities for critical historical inquiry. These materials include regular opportunities for all of the following elements:

    a. contextualization: locating a document in time and place and understanding how these factors shape its content;

    b. corroboration: considering details across multiple sources to determine points of agreement and disagreement;

    c. sourcing: considering who wrote a document as well as the circumstances of its creation;

d. chronological thinking: considering how events in history unfold over time; and

e. claim development: analyzing claims, interrogating the credibility of evidence, and developing counterclaims.

Key Criteria for Student Agency

- **Metacognitive Processes:** Instructional materials develop students' metacognition by directly teaching and supporting students to monitor understanding during reading and self-regulate during writing. This includes setting goals; self-monitoring growth; and reflecting on the impact of students' choices and ongoing development as readers, writers, and communicators. For multilingual learners, materials provide guidance on developing students' meta-awareness around language use and choices.[8] These materials include all of the following elements:

    a. setting goals and self-monitoring growth;

    b. reflecting on the impact of students' choices;

    c. modeling and developing strategies that support students in making their thinking visible through speaking or writing as they develop their understanding; and

    d. providing guidance for building metacognition for students with diverse learning needs.

- **Choice and Voice:** Instructional materials include a balance of student-choice and teacher-defined tasks. Students are provided regular opportunities to make choices about how to spend time, whom to spend it with, and what materials are used (texts, topics, and tasks). These materials include all of the following elements:

    a. options for choosing methods to express students' understanding that best reflect their strengths as learners and their understanding of the content;

    b. self-selection of texts or resources (e.g., selections that represent their interests, identities, abilities);

    c. tasks that invite students to identify and pursue their own inquiry arcs;

    d. regular student feedback about literacy experiences and instruction; and

    e. texts learners can identify themselves within.

- **Collaborative Learning:** Instructional materials engage all students in collaborative learning through a variety of research-based routines, structures, and tasks that allow for whole-group, small-group, and independent thinking. Materials explicitly plan for students to demonstrate their curiosity and share their tentative thinking; ask questions; and adjust their understanding by building on one another's ideas through speaking, listening, reading, and writing.

Key Criteria for Monitoring Progress and Supporting Students

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[8]English Learners Success Forum. (n.d.). ELA guidelines. Retrieved July 11, 2023, from https://www.elsuccessforum.org/ela-guidelines

- **Supports and Scaffolds[9]:** Instructional materials are designed to support a variety of student strengths and diverse learning needs in ways that are based on research and do not interfere with their ability to engage with grade-level content. These materials include all of the following elements:

  a. text- and/or content-specific guidance on identifying and addressing potential individual student needs so that supports, scaffolds, and extensions can be effectively differentiated;

  b. reteaching opportunities for students not yet proficient in reading, writing, and language grade-level skills; and

  c. supports and scaffolds that are designed to shift responsibility to students over time.

- **Simultaneous Literacy and Language Development:** Instructional materials provide appropriate supports for multilingual learners. These materials include all of the following elements:

  a. explicit instruction in writing, text structure, syntax (sentence structure), and cohesive devices (words that connect ideas in a text such as although, however);

  b. sentence or discussion frames; and

  c. strategic grouping to allow for students to converse in home languages.

- **Progress Monitoring:** Instructional materials embed frequent opportunities to monitor and develop students' progress in disciplinary literacy skills, application of those skills, development of language, and growth of content knowledge. These materials include all of the following elements:

  a. embedded and consistent formative assessment practices for content, literacy, and language learning;

  b. varied and multiple means of demonstrating integrated content, historical thinking skills, literacy, and language learning (e.g., podcast, mock interview, blogpost);

  c. regular monitoring of grade-level reading proficiency; and

  d. regular monitoring of oral language development.

- **Meaningful Feedback:** Instructional materials provide frequent opportunities for feedback to advance content understanding and disciplinary literacy skills, as appropriate to the type of literacy instruction. These materials include all of the following elements:

  a. peer and teacher cycles of feedback, including communicating progress;

  b. normalization of mistake-making and affirmation of effort and growth;

  c. guidance for explicit, timely, informative, and accessible formative feedback to address partial understandings and alternative thinking about tasks, texts, and topics in ways

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9 Thoughtfully designed questions and tasks that provide access to grade-level, culturally responsive-sustaining, and language-affirming experiences for students are one form of support for students and are addressed in other sections of this framework.

that allow learners to monitor their own progress effectively and to use that information to guide their own effort and practice; and

d. guidance on how and when to collect data, as well as how to respond to specific student strengths and needs.

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EDUCATOR SUPPORTS

To promote facilitation of meaningful learning experiences for all students, instructional materials ensure effective supports for educators. Throughout the instructional materials, explicit tools and resources focus on enhancing educators' depth of social studies-specific knowledge for teaching, using pedagogical content knowledge in planning for instruction, and practicing inquiry-based teaching to build on or extend students' critical thinking. These tools and resources also encourage reflective practice among educators, including the examination of their own identities, and employ research-based practices. In addition, resources are thoughtfully designed for ease of use and fit to community context.

Key Criteria for Educator Knowledge

- **Examination of Self:** Instructional materials support teachers in examining their own identities, biases, and belief systems to help them understand how these factors might influence instructional choices and the lens through which they interpret student thinking.". These materials may include reflection prompts, examples of educator thinking, or embedded professional learning.

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- **Inquiry-Based Teaching Practices:** Instructional materials support teachers in engaging with students in the inquiry process and inquiry-based pedagogical practices (question formulation, research, inquiry reflection, evaluation, and synthesis).

Key Criteria for Educator Knowledge

- **Text and Topic Knowledge:** Instructional materials support educators to engage students with rich texts and topics. These materials include all of the following elements:

  a. text analysis for anchor texts, including quantitative and qualitative complexity;

  b. considerations for engaging a diverse group of students in anchor text/unit content in inclusive ways (e.g., guidance, explanatory content, teacher notes); and

  c. explanations, examples of concepts, and/or additional resources to support teachers in building their own knowledge of the content and topics under study.

- **Students' Linguistic and Cultural Assets:** Instructional materials support educators to leverage students' linguistic and cultural assets. These materials include prompts for educators to learn about and integrate the knowledge, strengths, and resources of students, families, and the community — especially those who have been historically marginalized.

- **Supporting Language Development for All Learners:** Instructional materials build educators' understanding of research-based practices to support language development for all learners, especially for multilingual learners and students with diverse learning needs. These materials include all of the following elements:

  a. use of home language, translanguaging, and development of cross-linguistic connections to deepen understanding of the linguistic features across languages and registers; and

  b. development of oracy skills.

- **Supporting Literacy Development:** Instructional materials build educators' understanding of research-based practices to support literacy development through social studies instruction. These materials include all of the following elements:

  a. building of knowledge of students' language development, including oracy, and language development standards;

  b. simultaneous development of language, content, and literacy skills; and

  c. examples of student language with varying levels of language proficiency within the lesson context.

Key Criteria for Usability

- **Design and Functionality:** Instructional materials are designed to support ease of student and teacher use. This includes (all of the following):

  a. a visually appealing design with an organized and logical format;

  b. materials that are appropriately paced;

  c. clear and concise educator-facing guidance; and

  d. a variety of ways to engage with the content, including leveraging current technology

- **Adaptability for Context:** Instructional materials contain materials and/or meaningful suggestions for how to adapt for district, school, and/or classroom context. This may include varied selections for topics under study; flexibility to modify tasks to connect to local resources, organizations, or issues; or varied pacing suggestions based on number of school days or minutes of instruction.

- **Program Coherence:** Core instructional materials work in concert with (or have the potential to work in concert with) additional supplemental Social Studies materials (e.g., interventional materials). This includes, aligned and research-based content and instructional approaches across materials.

Research & Scholarship Supporting the Framework

A robust research and scholarship base underpins this framework. For more information about research-supported practice, see Student Achievement Partners' Essential X Equitable Instructional Practice Framework™.

DESIGNED TO AFFIRM STUDENTS

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DRAFT

Why Instructional Materials Matter for Maryland Students

The students of Maryland are a vibrant community of diverse learners, including a growing number of multilingual students and students from various racial and cultural backgrounds.1 Instructional materials designed to best serve these students must facilitate enriching, culturally responsive, and language affirming environments for all students.

Students deserve the opportunity to make sense of phenomena through the use of science and engineering practices (SEPs) to build a strong foundation for their educational journey and empower them with essential learning skills. High-quality instructional materials offer students engagement with relevant phenomena and problems that foster critical thinking abilities and language development and amplify student voice and agency. Additionally, these materials prioritize the affirmation of students' cultural and linguistic identities, attending to inclusive learning communities that connect education to their real-world experiences and provide the support and skill to ensure that students with diverse learning needs thrive.

By aligning with college and career readiness standards and research-based approaches, high-quality instructional materials unlock and support knowledge-building that encourages active learning and leads to dynamic demonstrations of knowledge from students. Furthermore, these materials offer support for educators, equipping them with the necessary tools, content knowledge, pedagogical expertise, and research-based practices to effectively engage students and adapt to diverse community and school contexts. With this comprehensive approach, instructional materials in Maryland have the potential to create transformative learning environments that prepare students from kindergarten through graduation for a future of choice and opportunity.

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[1] In 2022, Maryland's student population included 33% Black, 33% White, 22% Latinx and 7% Asian students, as well as 12% English learners, 12% students with disabilities, and an increasing proportion who face economic challenges (Maryland Department of Education).

Document Introduction

This framework serves as a valuable resource for educators and stakeholders across the education sector to identify key criteria in truly high-quality instructional materials. It outlines the essential elements of outstanding curricula and offers clear guidance on the instructional shifts and educator supports needed to foster meaningful learning experiences for students. To deliver the world-class education that the [Blueprint for Maryland's Future](#) envisions, educators and leaders can rely on this framework in service of identifying the research-based, high-quality materials that are necessary to provide students with rigorous instruction, nurture spaces that affirm their cultural and linguistic identities, and ensure their continued progress and success each year.

This framework is grounded in extensive research aimed at defining the content, instructional practice, and instructional design present in high-quality instructional materials. These research-based elements are central to the criteria within this framework and critical to support the kinds of learning experiences that Maryland students deserve.

Despite its strengths as a resource for identifying high-quality instructional materials, there are limitations for how this framework can be used. While the document provides crucial guidelines, it is NOT intended to be exhaustive in addressing all the elements of instructional materials and practices needed to create an equitable experience for students. Additionally, this document is NOT a rubric, meaning it does not provide a checklist or a scoring system for the evaluation of instructional materials. Instead, it offers guidance on the essential components of high-quality materials, encouraging educators to exercise professional judgment and adapt to their specific educational context.

It is also important for educators and leaders to recognize any and all humanizing considerations beyond the framework that may be necessary based on their unique students, classroom contexts, and school/district conditions in their review and selection of high-quality materials. Overall, this framework serves as a roadmap, empowering educators to select and use instructional materials that foster inclusivity, rigor, and relevance, ultimately resulting in enhanced learning outcomes for all students.

DOCUMENT ORGANIZATION

This document, intended for use when considering K–12 science core instructional materials, is organized into four categories (Designed to Affirm Students, Grade-Level and Standards-Aligned, Instructional Design, and Educator Supports), with domains that highlight key criteria in each section.

While specific categories have been included for culturally responsive-sustaining pedagogy and language-affirming instruction, related considerations for affirming students are woven throughout the framework. Similarly, considerations for diverse learning needs and Universal Design for Learning have been embedded throughout to reflect the way that these practices must be interlaced in thinking about content, instructional practice, and support for educators.

A collection of research and scholarship used to inform this framework is included as an appendix.

Key Criteria for High-Quality Instructional Materials

DESIGNED TO AFFIRM STUDENTS

Affirming students creates opportunities for cultural and linguistic backgrounds to be an asset and a source of validation in the learning experience. In addition to a foundation of grade-level content, high-quality instructional materials must prioritize instructional practices that affirm students' cultural and linguistic backgrounds and support students with a range of diverse learning needs to thrive through science. This support includes developing culturally responsive-sustaining learning communities that center who students are and the cultural identities they bring with them. These learning communities use science as a tool for building cultural competence; perspective-taking; and social, political, and ecological thinking and for engaging in the content in ways that foster relationships, community, and a sense of pride and understanding of students' contexts. Science instruction must also intentionally affirm students' languages and language practices through a focus on building upon students' multilingualism and ensuring that all students can meaningfully access and engage with science ideas and practices using their unique linguistic assets. Through these instructional choices, materials have the potential to ensure that all learners find success in science and can cultivate identities as scientists and engineers.

Key Criteria for Culturally Responsive-Sustaining Instruction[2]

- **Affirmation and Centering of Students:** Instructional materials affirm, engage, and center past and current knowledge of Black/African, Indigenous, Brown, and non-Western literary expressions and highlight multilingualism. Instructional materials are designed to encourage students to anchor learning in their individual experiences, backgrounds, and cultural knowledge to support and further their scientific knowledge and skills. These materials include all of the following elements:

    a. regular opportunities for students to share who they are and what they know, bringing their unique funds of knowledge to their science experiences;[3]

    b. reflection and conversation within the context of the text or topic under study that affirm students' identities and experiences; and

    c. authentic and meaningful activities (e.g., scenarios, investigations, tasks) that reflect both the authenticity of the discipline (i.e., how science is done in a variety of real-world contexts) and authenticity to students' lived experiences.

- **Science as a Tool for Civic Engagement:** Instructional materials consistently include phenomena and tasks that prompt students to apply and develop their civic engagement skills and examine social context and current events, using science to question the world and the current status quo.

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[2] This conceptualization of culturally responsive-sustaining instruction is built on the evidence from its predecessors—culturally relevant, responsive, and sustaining pedagogies. This scholarship underscores the importance of leveraging the diverse backgrounds of students as assets in the classroom that can and should be sustained through intentional instructional design. For more information about relevant scholarship, please see the citations section in the Appendix.

[3] Moll, L. C., Amanti, C., Neff, D., & González, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice, 31*(2), 132–141.

- **Real-World Connections:** Instructional materials consistently connect with students' lives, their future goals, their communities, and the world and nurture ways to engage in their own communities and beyond. These materials include all of the following elements:

    a. use of scientific phenomena and tasks to connect to current events;

    b. collaborative tasks and/or projects that involve real-world problem-solving through meaningful interactions with peers and their local communities;

    c. structures (e.g., tasks, classroom activities, routines, assignments) to explore scientific phenomena from current events and data that are relevant to students' lives and communities so that students see themselves in the tasks and understand how they relate to their context and promote a sense of belonging;[4]

    d. opportunities for students to reflect on how science phenomena, problems, and activities affect themselves, their families, and their communities and how their specific communities might shape the phenomena/problems/activities; and

    e. teacher guidance to support students in developing SEPs and disciplinary knowledge that are relevant to their academic and professional goals.

Key Criteria for Language-Affirming Instruction

- **Multilingualism in Science:** Instructional materials are deliberately designed to honor and build upon students' language(s) as an asset, encouraging students to use their linguistic repertoire to communicate with one another via reading, writing, speaking, and listening while engaging in scientific learning. These materials include all of the following elements[5]:

    a. promoting sustained oral and written communication, including explicit encouragement to use a range of language practices and registers and to use their full language repertoire through translanguaging so all students express themselves in a language they are comfortable with while working to learn science content and meet language objectives in the target language;

    b. building vocabulary and understanding of new concepts in English and home language(s), including use of social and academic vocabulary;

    c. making cross-linguistic connections, including identifying and comparing similarities and differences between home language(s) and English (e.g., cognates) or registers and registers of instruction;

    d. stating clear and specific integrated three-dimensional goals that emphasize the ways students use language for learning and communicating meaning in science;[5]

    e. introducing students to new language after students have developed conceptual understanding so they can understand and communicate science ideas;[5]

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4 Tate, W. F. (1995). Returning to the root: A culturally relevant approach to mathematics pedagogy. Theory Into Practice, 34(3), 166–173.

5 García, O., Johnson, S. I., & Seltzer, K. (2017). The translanguaging classroom: Leveraging student bilingualism for learning. Caslon. For more, see Translanguaging Strategies, English Learner Success Forum.

    f.   making the purpose of using language to communicate about scientific phenomena clear to students and teachers;5

    g.   offering ongoing discussion opportunities for students to listen actively, express, revisit, and refine their three-dimensional understanding and language over time;6 and

    h.   offering ongoing opportunities for students to revisit and refine their three-dimensional understanding and language over time through reading, viewing, writing, and representing.5

- **Language Objectives:** Instructional materials provide explicit alignment between language and content objectives to ensure that the language goals embedded within the standards are being attended to in every lesson. This includes language objectives for both expressive (writing and speaking) and receptive (listening and reading) communication that are aligned to the science performance expectations.

- **Phenomena/Text Selection to Support Language Development:** Instructional materials use texts that have all of the following elements:

    a.   authentic language;

    b.   rich vocabulary and syntax;

    c.   content that is written in home languages, when possible, and is high quality (e.g., not poor-quality translations); and

    d.   formats that support sensemaking and language development (e.g., text engineering)and examine social contexts and current events, using science to question the world and the current status quo.

GRADE-LEVEL AND STANDARDS ALIGNED

Grade-level, standards-aligned opportunities to develop and demonstrate sense-making with the three dimensions in science serve as a necessary foundation for equitable student experiences in the classroom. Engaging in three-dimensional, phenomenon- or problem-driven teaching and learning from kindergarten through graduation sets students on a path to informed lives as critical thinkers. This includes ensuring that all students make sense of phenomena and problems that are meaningful and compelling and do so in ways that build understanding that is transferrable through the use of SEPs, disciplinary core ideas (DCIs), and crosscutting concepts (CCCs)

Key Criterial for Sense-Making

- **Phenomenon- or Problem-Driven Learning and Performance:** Instructional materials are organized to center student learning around making sense of phenomena (i.e., specific

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6 Placeholder

occurrences in the natural or designed world) and/or problems (i.e., situations people want to change). These materials include all of the following elements:

    a.   compelling phenomena and/or problems that are specific, meaningful to particular communities, and of the appropriate scope to drive student sense-making and promote learning of the targeted grade-appropriate standards;

    b.   opportunities to engage with a range of phenomena, such as everyday occurrences and those that are relevant to society or culturally significant;

    c.   student questions about phenomena/problems, and experiences (both prior experiences and those cultivated in the moment in class) related to the phenomena/problems, to motivate student sense-making and/or problem-solving; and

    d.   instructional activities that help students answer questions they have about the phenomena and surface new questions that future lessons will help them answer.

- **Three Dimensions Development:** Instructional materials build student understanding of explicit, grade-appropriate elements of SEPs, DCIs, and CCCs through engagement with the phenomena/problems. Moreover, the identified dimensions are required to explain the selected phenomenon or solve the identified problem.

- **Scientific Accuracy:** Instructional materials use scientifically accurate and grade-appropriate scientific information, phenomena, and representations to support students' three-dimensional learning.

- **Nature of Science Development:** Instructional materials organize learning around using the SEPs, CCCs, DCIs, and nature of science together in service of sense-making. Nature of science expectations in the Next Generation Science Standards offer a route to building an understanding of the history and inequities in science.7 Instructional materials build students' understanding of the nature of science elements, explicitly connected to understanding. These materials include all of the following elements:

    a.   how specific scientific understandings have been constructed;

    b.   who has been included and excluded in scientific activities and communication of findings;

    c.   the impact of how science has been, and is, done on a range of human and nonhuman communities and environments; and

    d.   connections between the nature of science and problem/question definition and critical interpretation of findings.

- **Hands On:** Instructional materials provide students with the opportunity to regularly take part in hands-on investigation, modeling, and engineering. Learning experiences emphasize students' thinking as scientists with opportunities to pose questions; plan and carry out investigations that include the collection, organization, and analysis of data; develop and use

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7 Next Generation Science Standards. Appendix H – Understanding the scientific enterprise: The nature of science in the Next Generation Science Standards.

models to construct and represent their understanding; and develop explanations and arguments based on evidence.

Key Criteria for Coherence

- **Lesson and Unit Coherence:** Instructional materials include logical sequences within units, across units, and within a grade band. Lessons and units in the materials build on prior lessons and experiences by addressing questions raised in previous lessons and leading students to pose new questions that will be explored in subsequent lessons. In doing so, the materials build understanding toward a defined set of three-dimensional expectations.

- **Three-Dimensional Coherence:** Instructional materials build DCIs, SEPs, and CCCs progressively from one lesson or unit to the next. In the materials, scaffolding to support student development of SEPs and CCCs decreases over progression to support student independence.

- **Instructional Model Coherence:** Instructional materials include routines and strategies situated within an instructional model that offer coherence in the types of learning experiences and the approach to learning.

- **Assessment Coherence:** Instructional materials include an approach to assessment that aligns with the approach to instruction.

INSTRUCTIONAL DESIGN

Instructional materials must support meaningful engagement for all students to be deemed high quality. It is through this intentional design that instructional materials contribute to learning communities in which students develop a deep understanding of the natural and designed world; are authentically engaged as scientists and engineers; have the support they need; and regularly demonstrate their learning in dynamic ways.

Key Criteria for Student Agency

- **Metacognitive Processes:** Instructional materials develop and surface students' metacognition by teaching and supporting students to monitor understanding while engaging in science learning. These materials include all of the following elements:

  a. setting goals, self-monitoring growth, and reflecting on the impact of students' choices and ongoing development as scientists and engineers;

  b. providing opportunities for students to think about how language is used in science for sense making, expression of complex relationships, describing phenomenon and problems;

  c. providing opportunities to revisit student models, explanations, and designs as part of the process of intentional reflection; and

    d.   providing strategies to help students understand the relationship between the three dimensions and the variety of language used (e.g., everyday, science specific, home language).[8]

- **Choice and Voice:** Instructional materials include a balance of student-choice and teacher-defined tasks and offer a variety of phenomena/problems that support student choice and leverage students' approaches to sense-making.

- **Authentic Engagement as a Scientist:** Instructional materials promote productive struggle and the sense-making process through engaging, relevant phenomena that are sequenced to build conceptual understanding of DCIs, concepts, and practices; provide opportunities to take risks; allow for iterative building of knowledge and multiple approaches; and use misconceptions as opportunities for entry points for learning.

- **Collaborative Learning:** Instructional materials engage all students in collaborative learning through a variety of routines, structures, and tasks that allow for whole-group, small-group, and independent thinking. Materials explicitly plan for students to demonstrate their curiosity and share their tentative thinking; ask questions; and adjust their understanding by building on one another's ideas through speaking, listening, reading, and writing.

Key Criteria for Monitoring Progress and Supporting Students

- **K–12 Progressions:** Instructional materials identify and build on students' prior learning in all three dimensions. These materials include all of the following elements:

      a.   explicit identification of prior student learning expected for all three dimensions; and

      b.   clear explanations of how the prior learning will be built upon.

- **Supports & Scaffolds:** Instructional materials are designed to support a variety of student strengths and diverse learning needs in ways that are based in research and do not interfere with their ability to engage with grade-level content. These materials include all of the following elements:

      a.   guidance on potential individual student needs so that supports, scaffolds, and extensions can be effectively differentiated to support three-dimensional sensemaking;

      b.   resources that provide acceleration opportunities for students who are not yet proficient in reading, writing, and language grade-level skills;

      c.   resources that provide extensions for students who have met performance expectations to continue growth; and

      d.   supports and scaffolds that are designed to shift to student independence over time.

- **Simultaneous Science Sense-Making and Language Development:** Instructional materials include intentional language learning opportunities alongside appropriate, research-based supports for multilingual learners and students with diverse learning needs to develop scientific sense-making and language simultaneously.

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[8] English Learner Success Forum. Guidelines for improving science and engineering materials for multilingual learners

- **Relevant Contexts:** Instructional materials provide contextualized tasks and problems that are relevant to students and their communities and emphasize phenomena and sense-making that incorporate student and community interests and agency. Instructional materials lift up diverse cultures via asset-oriented narratives.

- **Three-Dimensional Performance Progress Monitoring:** Instructional materials embed frequent opportunities to monitor and develop students' progress in scientific sense-making using the three dimensions and nature of science. These opportunities are fully coherent with instructional design, implying that they reflect students' opportunities to learn, and the same criteria as instructional materials, as appropriate to the scope and nature of the assessment(s). These materials include all of the following elements:

    a. consistent multidimensional assessment opportunities that center on making sense of phenomena and addressing problems with the three dimensions and nature of science;

    b. embedded and consistent formative assessment practices to surface student understanding and inform instructional decision-making;

    c. varied and multiple means of surfacing sense-making with multiple dimensions that coherently measure and signal what is most valued about student learning in science, including attention to culturally and linguistically responsive practices;

    d. routine opportunities to demonstrate understanding at a range of complexity, including simple checks on understanding and more complex performance tasks at appropriate intervals; and

    e. routine opportunities to surface data about students' experience and to triangulate this with performance information to inform instruction.

- **Meaningful Feedback:** Instructional materials provide frequent opportunities for feedback to advance content understanding and disciplinary literacy skills, as appropriate to the type of literacy instruction. These materials include all of the following elements:

    a. peer and teacher cycles of feedback, including communicating progress;

    b. normalization of mistake-making and affirmation of effort and growth;

    c. guidance for explicit, timely, informative, and accessible formative feedback to address partial understandings about tasks, texts, and topics in ways that allow learners to monitor their own progress effectively and to use that information to guide their own effort and practice;

    d. focusing of students' attention on sense-making and/or metacognitive processes; and

    e. guidance on how and when to collect data, as well as how to respond to specific student strengths and needs.

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EDUCATOR SUPPORTS

To promote facilitation of meaningful learning experiences for all students, instructional materials ensure effective support for educators to engage all students in meaningful three-dimensional phenomenon-/problem-based learning through reflection; background focused on content and pedagogical content knowledge in the lessons, units, and/or program; and supports for understanding and use of research-based practices. In addition, resources are thoughtfully designed for ease of use and fit to community context.

Key Criteria for Educator Knowledge

- **Examination of Self:** Instructional materials support teachers in examining their own identities, biases, and belief systems to help them understand how these factors might influence instructional choices and the lens through which they interpret student thinking. These materials may include reflection prompts, examples of educator thinking, or embedded professional learning.

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- **Pedagogical Content Knowledge:** Instructional materials explicitly support teachers in building students' science understanding by helping educators understand how students learn science. These materials include all of the following elements:

    a. explanations, examples, additional conceptual information, and related phenomena to support teachers in building their own knowledge of the targeted phenomena, problems, SEPs, DCIs, and CCCs;

    b. explicit guidance for instructional strategies and routines that support authentic student sense-making (e.g., how to elicit student ideas and surface student questions that drive ongoing learning experiences); and

    c. explicit guidance for instructional strategies and routines that are consistent with how students learn science (e.g., rather than simply providing teachers with alternative conceptions or common student ideas, provide information about what experiences young children often have that lead them to believe one thing and how to use that facet of understanding to build a more accurate and complete understanding in grade-appropriate ways).

Key Criteria for Educator Knowledge

- **Students' Linguistic and Cultural Assets:** Instructional materials support educators in understanding how to surface and value diverse sense-making repertoires and how to leverage students' linguistic and cultural assets in service of scientific sense-making across the three dimensions. These materials include all of the following elements:

    a. integrated structures for educators and prompts for them to learn about and integrate the knowledge, strengths, and resources of students, families, and the community — especially those who have been historically marginalized;

    b. diverse examples of how different student experiences and language can be leveraged within specific instructional contexts; and

    c.   explicit prompts and supports for surfacing student assets within teacher guides or other facilitator materials.

- **Supporting Language Development for All Learners:** Instructional materials build educators' understanding of research-based practices to support language development for all learners, especially for multilingual learners. These materials include all of the following elements:

  - use of home language, translanguaging, and developing cross-linguistic connections to deepen understanding of the linguistic features across languages and registers; and

  - development of oracy skills.

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- **Inclusive Classroom Environments:** Instructional materials include specific guidance, instructional strategies, and routines for cultivating classroom cultures in which all students can have a voice and feel a sense of belonging. These materials include all of the following elements:

  a.   structures for ensuring that all students can share their ideas;

  b.   opportunities for students to see their ideas as valued elements/expertise within the science classroom setting; and

  c.   opportunities for students to recognize self and peer assets while celebrating diversity of experiences.

Key Criteria for Supporting Principled Adaptation to Local Contexts and Specific Student Experiences

- **Related and Alternative Phenomena:** Instructional materials provide guidance for how to identify and use alternative phenomena and problems as part of instructional activities, including locally relevant and compelling phenomena/problems.

- **Surfacing of Student Experiences:** Instructional materials include explicit structures for collecting student interest and experience data and triangulating this information with performance/proficiency data to inform possible needed adaptations of materials.

- **Student-Centered Extensions and Alternatives:** Instructional materials provide guidance for possible extension activities, alternative investigations, or design projects that allow for student choice and adaptation to specific communities and students. These materials may include structures and guidance, with opportunities for teachers and students to have complete autonomy over content, or they may include more structured opportunities, with specific elements that are open to choice and adaptation.

- **Clear Guidance on Constant and Variable Features:** Instructional materials are designed such that they assume some local adaptation will be needed to authentically support diverse learners. Instructional materials explicitly support teachers in understanding which elements of the materials should not be adapted (or should be done so very carefully) and which elements have been designed such that teachers and students can modify them with great success (e.g., to connect with local resources and priorities, to be appropriate to available time for instruction).

Key Criteria for Usability

- **Design and Functionality:** Instructional materials are designed to support ease of student and teacher use. These materials include all of the following elements:

    a. visually appealing design with an organized and logical format;

    b. appropriate pacing;

    c. clear and concise educator-facing guidance;

    d. a variety of ways to engage with the content, including leveraging current technology and tools;

    e. manipulatives that are well organized, with an emphasis on ease of setup; and

    f. appropriate guidance for hands-on activities.

- **Adaptability for Context:** Instructional materials contain materials and/or meaningful suggestions for how to adapt for district, school, and/or classroom context. These materials may include varied selections for topics under study; flexibility to modify tasks to connect to local resources, organizations, or issues; or varied pacing suggestions based on number of school days or minutes of instruction.

- **Program Coherence:** Core instructional materials work in concert with (or have the potential to work in concert with) additional supplemental science materials (e.g., Maryland Environmental Literacy Standards Framework, local projects, school-based science/STEM initiatives). These materials include aligned and research-based content and instructional approaches across materials.

Research & Scholarship Supporting the Framework

A robust research and scholarship base underpins this framework. For more information about research-supported practice, see Student Achievement Partners' Essential X Equitable Instructional Practice Framework™.

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