



Disciplinary Literacy Standards for the Preparation
of Middle Grades (5-9) and High School (7-12) Teachers

Implementation Resources

September 2024

Introduction

To support educator preparation providers in implementing the Disciplinary Literacy Standards for the Preparation of Middle Grades (5-9) and High School (7-12) Teachers, a small stakeholder group convened to curate an initial set of resources to support educator preparation providers (EPP) in implementing these standards, which were shared with EPPs immediately after State Board of Education approval in March 2024. This first set of resources are meant to support the implementation of the Disciplinary Standards for the Preparation of Middle Grades (5-9) and High School (7-12) in the context of standalone teacher preparation courses. These standards are robust; for this reason, it is recommended that the standards be addressed through a series of teacher preparation courses when possible.

These implementation resources (September 2024) are organized as follows. Listed under “General Resources” are guidance documents, books, podcasts, videos and websites that provide important background knowledge for designing courses focused on preparing educators to teach disciplinary literacy. They can also inform the overall design of these courses. Included in this section is a [Sample Course Calendar](#) mapping a 15-week undergraduate course with sample formative and summative assessments aligned with the standards. Contributed by Dr. Christina Ponzio of GVSU, the sample undergraduate and graduate course documents are under continued development and thus document accessibility needs can be directed to (ponzioc@gvsu.edu). The second table, “Resources Organized by Standard,” specifies what resources align to each of the Disciplinary Literacy Preparation Standards. Provided last is a glossary of key terms within the standards.

[General Resources](#)
[Resources Organized by Standard](#)

General Resources

Resource	Annotation
Disciplinary Literacy Standards for the Preparation of Middle Grades (5-9) and High School (7-12) Teachers	<p>The Michigan Department of Education adopted this set of standards in March of 2024. These standards replace the 2002 for reading coursework required by rule for secondary certifications.</p>
Disciplinary Literacy Essentials Webinar	<p>This pre-recorded webinar provides a general introduction to disciplinary literacy, the origins of Michigan’s focus on disciplinary literacy, connections to academic disciplines, and a clarification of the difference between content-area literacy and disciplinary literacy approaches.</p>
Essential Instructional Practices for Disciplinary Literacy in the Secondary Classroom: Grades 6 to 12	<p>This foundational document is part of Michigan’s suite of Essential Practices documents. It articulates a vision for research-supported, Tier 1 instruction that has been shown to increase adolescent literacy proficiency. There are five sections in the document: General Practices, English Language Arts, Mathematics, Science, and Social Studies.</p>
Disciplinary Literacy Essentials - Beyond “the Core”	<p>This document serves as a companion to the <i>Essential Instructional Practices for Disciplinary Literacy in the Secondary Classroom: Grades 6 to 12</i> document. It articulates what the ten Essential Instructional Practices might look like in secondary Visual Arts, Dance & Movement, Choral & Instrumental Music, World & Heritage Languages, and Drama & Theater courses.</p>
Resource Hubs	<p>This Google Drive folder includes links to spreadsheets with recommended resources aligned to each of the ten Essential Instructional Practices. There is a separate Resource Hub for the following academic disciplines: English language arts, Mathematics, Science, and Social Studies. Suggested resources for other academic disciplines can be found in the Disciplinary Literacy Essentials–Beyond “the Core” document.</p>
EduPaths Courses and Facilitation Guides	<p>Members of Michigan’s Disciplinary Literacy Task Force have created a free, asynchronous series of courses aligned to the <i>Essential Instructional Practices for Disciplinary Literacy in the Secondary Classroom: Grades 6 to 12</i> document. Designed as an introductory learning series for educators who are unfamiliar with the</p>

	<p>Essential Practices, these resources can provide a helpful starting point for secondary teacher preparation candidates. Bulk enrollment is available by contacting abuza@gomaisa.org. Analogous materials are also available within the linked facilitation guides. These guides include links to Google slide decks that can be copied and customized for in-person learning experiences on the EduPaths Disciplinary Literacy series content.</p>
<p><u>BELE Framework</u></p>	<p>The Building Equitable Learning Environments (BELE) Network works with educators, policymakers, grantmakers, schools and school support organizations to innovate and implement learning environments grounded in research and in the science of learning and development. One output of their work is the BELE Framework, which outlines approaches at the state, district, school, classroom, and community level that provide equitable learning environments for all. This Framework influenced the content and language of the <i>Essential Instructional Practices for Disciplinary Literacy in the Secondary Classroom: Grades 6 to 12</i> and <i>Essential School-Wide Practices in Disciplinary Literacy: Grades 6 to 12</i> documents.</p>
<p>Disciplinary Literacy Task Force <u>Mailing List</u></p>	<p>Professors in secondary teacher preparation courses may choose to sign up to receive updates on professional learning opportunities and resource development offered by Task Force members.</p>
<p><u><i>Essential School-Wide Practices in Disciplinary Literacy: Grades 6 to 12</i></u></p>	<p>The purpose of this document is to increase Michigan’s capacity to improve adolescents' literacy by identifying effective practices that can be implemented at the organizational level in secondary schools. To meet the needs of all learners, organizational practices must support literacy development in ways that systematically impact learning throughout schools. Each of the eight recommended school-wide practices should occur in all Michigan middle and high school learning environments.</p>
<p><u>Essential Practices for Disciplinary Literacy: A Tool to Support Educator Preparation Programs</u></p>	<p>This document provides a general overview of the key elements involved in disciplinary literacy approaches.</p>
<p><u>Sample Course Calendar with Assessments</u></p>	<p>This document provides an overview of the curriculum developed in alignment with the updated standards for the Disciplinary Literacy course taught to all</p>

	<i>undergraduates</i> in secondary education at Grand Valley State University. Links to formative and summative assessments aligned to all standards are also included.
<u>Sample Course Calendar with Assessments</u>	This document provides an overview of the curriculum developed in alignment with the updated standards for the Disciplinary Literacy <i>graduate</i> course at Grand Valley State University. Links to summative assessments aligned to standards are also included.
<u>Glossary</u>	A glossary of important terms found throughout the standards.
Books	Description
<u><i>Disciplinary Literacy in Action: How to Create and Sustain a School-Wide Culture of Deep Reading, Writing, and Thinking</i></u> by M. McCracken Voigt and R. Cossett Lent	This book provides a framework for supporting disciplinary development, instructional strategies, and ideas for developing teacher efficacy and leadership. The framework addresses the following: <ul style="list-style-type: none"> • Collaborative learning that preserves discipline-specific content yet keeps innovative daily practices of reading, writing, thinking, and doing at the forefront • Planning by autonomous literacy leadership teams with administrative support • Implementation augmented by peer and disciplinary literacy coaching • Reflection that leads to ongoing collective problem solving
<u><i>Disciplinary Literacy Inquiry & Instruction</i></u> , Second Edition by J. Ippolito, C. L. Dobbs, and M. Charner-Laird	In the second edition, the authors provide an updated framework for guiding discipline-specific teaching and learning in K–12 classrooms. Based on the RAND model of reading comprehension, their framework supports teachers in exploring the language, genres, and modalities of their disciplines while attuning specifically to texts, tasks, students, and classroom cultures
<u><i>Reading for Understanding</i></u> , Third Edition by C. Greenleaf, R. Schoenbach, L. Friedrich, L. Murphy, & N. Hogan	Building from nearly 30 years of research in adolescents’ literacy development, this newly updated text offers a framework, vignettes, instructional activities, links to videos and more to support the social and personal, cognitive, knowledge building and metacognitive dimensions of reading within the disciplines.
<u><i>Widening the Lens Integrating Multiple Approaches to Support</i></u>	Hamilton and Van Duinen’s newly published text was developed based on their work teaching disciplinary literacy courses to pre-service teachers at Grand Valley

<u><i>Adolescent Literacy</i></u> by E. Hamilton & D. Van Duinen	State University and Hope College. Integrating an asset-based approach to adolescents and their literacy practices, this book integrates research, theory and practices and offers suggested resources, teaching strategies, and discussion questions.
<u><i>Words Worth Using</i></u> by D. Townsend	This newly published text offers a framework for considering what words are “worth using” in order to maximize adolescents’ academic language learning through the development of their metalinguistic awareness.
Podcasts	Description
<u><i>All About Literacy</i></u> podcast	This podcast was created by Deb Van Duinen (Hope College) and Erica Hamilton (Grand Valley State University) based on their curriculum for their disciplinary literacy courses for pre-service teachers.
<u>Reading and Thinking Like Scientists</u> <u>Teaching art or thinking like an artist</u> <u>Inquiry-Based Disciplinary Literacy in Math</u> <u>Close reading in ELA vs History</u> <u>Literacy and Health/PE</u> <u>Think like a Musician</u> <u>Disciplinary Literacy in PE</u>	This selection of videos illustrates the disciplinary language and literacy practices within various disciplines and associated fields.
Websites	Description
<u>Annenberg Series: Disciplinary Literacy</u>	This online course provides an overview of disciplinary literacy, concepts related to disciplinary reading and writing and general instructional practices to support the development of literacy in mathematics, science, English, and social studies. Resources include online text with interactive features, case studies and over 70 videos.
<u>Literacy in Subject Areas</u>	This resource was created by Trish Weekes, an educator in Australia, to provide resources to explore language and literacy across the disciplines and their associated fields.

Resources Organized by Standard

Topic	Standard	Resource Cross-reference the table above for more information about these resources.
All topics	All standards	<ul style="list-style-type: none"> • <u>Essential Instructional Practices for Disciplinary Literacy in the Secondary Classroom: Grades 6 to 12</u> • <u>Disciplinary Literacy Essentials - Beyond “the Core”</u> • <u>Resource Hubs</u> • <u>BELE Framework</u> • <u>Disciplinary Literacy Task Force Mailing List</u> • <u>Essential Practices for Disciplinary Literacy: A Tool to Support Educator Preparation Programs</u> • <u>Sample Curriculum Map: Undergrad</u> • <u>Sample Curriculum Map: Grad</u>
Disciplinary Literacy	1.1. Demonstrate knowledge of major theoretical, conceptual, and evidence-based components of literacy, disciplinary literacy, and disciplinary literacy instruction, including: academic language and vocabulary, reading comprehension and instruction, critical thinking and analysis, speaking, listening, and viewing, writing and writing processes	<ul style="list-style-type: none"> • <u>Disciplinary Literacy Essentials Webinar</u> • <u>Reading for Understanding</u>, Ch. 1: Engaged Literacy for All • <u>Reading for Understanding</u>, Ch. 2: The Reading Apprenticeship Framework • <u>All About Literacy</u> podcast, “Disciplinary Literacy” episode with Jenelle Williams • <u>ILA Content Area and Disciplinary Literacy</u>
Texts	1.2. Demonstrate knowledge of the range of definitions and conceptualizations of text and consider implications for/connections to concepts such as digital literacies and visual literacies.	<ul style="list-style-type: none"> • <u>EduPaths Disciplinary Literacy Course 4–Disciplinary Literacy: Identifying, Developing, and Analyzing Resources and Text Sets</u> • <u>Reading for Understanding</u>, Ch. 1: Engaged Literacy for All • <u>Reading for Understanding</u>, Ch. 2: The Reading Apprenticeship Framework • <u>Reading for Understanding</u>, Ch. 5: Extensive Academic Reading • <u>Literacy in Subject Areas</u>

<p>Disciplinary Purposes for Writing, Reading, Speaking and Listening</p>	<p>Explore and recognize a range of compelling reasons for students to engage in literacy, including the following:</p> <p>1.3.a. writing in the discipline and how to establish authentic purposes and audiences for disciplinary writing during instruction</p> <p>1.3.b. reading in the discipline and how to establish authentic purposes for disciplinary reading during instruction</p> <p>1.3.c. presenting and listening in the discipline and how to establish authentic purposes and audiences for presenting and listening to presentations.</p>	<ul style="list-style-type: none"> ● EduPaths Disciplinary Literacy Course 2–Disciplinary Literacy: Framing Problems and Setting Purpose (Practices 1 & 9) ● EduPaths Disciplinary Literacy Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), <u>Part 1</u> and <u>Part 2</u> ● EduPaths Disciplinary Literacy Course 6–Disciplinary Literacy: Planning for Writing and Communication (<u>Part 1</u> and <u>Part 2</u>) ● Reading for Understanding, Ch. 7: Knowledge-Building Dimension ● Annenberg Series: Disciplinary Literacy Literacy in Subject Areas ● Reading and Thinking Like Scientists (6:46) ● Teaching art or thinking like an artist ● Inquiry-Based Disciplinary Literacy in Math ● Close reading in ELA vs History ● Literacy and Health/PE ● Think like a Musician ● Disciplinary Literacy in PE
<p>Disciplinary Literacy and Identity</p>	<p>1.4.a. Demonstrate awareness of the importance of making literacy processes and learning relevant to all students through an understanding of their individual identities, including their funds of knowledge, prior experiences, frames of reference, culture and performance styles. They will be able to recognize how student instruction is impacted by teacher identity and learn about the identities of adults and children in the learning community</p>	<ul style="list-style-type: none"> ● EduPaths Disciplinary Literacy Course 1–Disciplinary Literacy: Identity and Community ● All About Literacy podcast, “Sociocultural Theories of Literacy” episode with Drs. Raven Jones and Theda Gibbs Grey ● Reading for Understanding, Ch. 3: The Social and Personal Dimension
<p>Inquiry-Based Purposes for Literacy Development</p>	<p>1.4.b. Demonstrate awareness of the importance of making literacy processes and learning relevant to all students through an understanding of their</p>	<ul style="list-style-type: none"> ● EduPaths Disciplinary Literacy Course 2–Disciplinary Literacy: Framing Problems and Setting Purpose (Practices 1 & 9) ● Reading for Understanding, Ch. 8: Disciplinary Inquiry

	individual identities, including their funds of knowledge, prior experiences, frames of reference, culture and performance styles. They will be able to demonstrate an understanding that literacy learning is best framed around problems and questions that set purpose for the use of literacy practices.	
Integrating Verbal and Visual Texts	1.5. Explore and draw on the relationship between verbal and visual texts as mutually supportive methods for meaningful communication. Model strategies for reading and interpreting visual texts implementing tools such as Visual Thinking Strategies.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy Course 4–Disciplinary Literacy: Identifying, Developing, and Analyzing Resources and Text Sets • EduPaths Disciplinary Literacy Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), Part 1 and Part 2 • Reading for Understanding, Ch. 7: Knowledge-Building Dimension
Disciplinary Dispositions, Thinking, and Communication	<p>1.6. Classify, describe, and model the dispositions, strategies, and patterns of thinking typical in academic disciplines.</p> <p>1.7. Classify, describe, and model strategies for effective oral communication in academic disciplines.</p>	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy Course 2–Disciplinary Literacy: Framing Problems and Setting Purpose (Practices 1 & 9) • EduPaths Disciplinary Literacy Course 6–Disciplinary Literacy: Planning for Writing and Communication • Reading for Understanding, Ch. 4: The Metacognitive Dimension • Reading for Understanding, Ch. 6: The Cognitive Dimension • Reading for Understanding, Ch. 7: Knowledge-Building Dimension • Annenberg Series: Disciplinary Literacy • Literacy in Subject Areas • Reading and Thinking Like Scientists (6:46) • Teaching art or thinking like an artist • Inquiry-Based Disciplinary Literacy in Math • Close reading in ELA vs History • Literacy and Health/PE • Think like a Musician • Disciplinary Literacy in PE

<p>Identifying Tiered Vocabulary</p>	<p>1.8.a. Evaluate how language is used in powerful and effective ways in the discipline based on the purpose, audience, context, and genre of a verbal or visual text and consider implications for instruction. They will be able to identify tiered vocabulary words relevant to their content area in connection with a given verbal and/or visual text, content expectation, or topic and identify appropriate instructional strategies for these words (e.g., morphemic analysis, teaching multiple meanings of a word)</p>	<ul style="list-style-type: none"> • EduPath Disciplinary Literacy Course 7– Disciplinary Literacy: Teaching Language in the Context of Use • Reading for Understanding, Ch. 7: Knowledge-Building Dimension • Words Worth Using by D. Townsend
<p>Presenting Vocabulary in Context</p>	<p>1.8.b. Evaluate how language is used in powerful and effective ways in the discipline based on the purpose, audience, context, and genre of a verbal or visual text and consider implications for instruction. They will be able to present vocabulary as language in use (as opposed to words from decontextualized lists) and identify opportunities for students to talk about and use new words.</p>	<ul style="list-style-type: none"> • EduPath Disciplinary Literacy Course 7– Disciplinary Literacy: Teaching Language in the Context of Use • Reading for Understanding, Ch. 7: Knowledge-Building Dimension • Words Worth Using by D. Townsend
<p>Critical Reflective Practice</p>	<p>2.1 Engage in reflection throughout instructional planning, teaching, and selection of texts and materials to affirm diversity, advance equity, enact inclusion, and improve their teaching practices.</p>	<ul style="list-style-type: none"> • Critical Self Reflection: TED TALK • Reflective-Practice-Tool-for-Teacher-Educators.pdf (educatordiversity.org)

Evaluating Instructional Resources	2.2 Demonstrate the ability to evaluate instructional resources, including published curricular materials, for appropriateness in terms of educational context.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 4</u>–Disciplinary Literacy: Identifying, Developing, and Analyzing Resources and Text Sets • <i>Reading for Understanding</i>, Ch. 5: Extensive Academic Reading • <i>Reading for Understanding</i>, Ch. 8: Disciplinary Inquiry
Schoolwide Literacy Supports, Structures and Resources	2.3.a. Identify available school-wide literacy supports, structures and resources. (Literacy coaches, school librarians, curriculum coordinators, department chairs, mentor teachers, MTSS Supports, etc.). They will be able to collaboratively participate in ongoing inquiry with colleagues, mentor teachers, and literacy specialists.	<ul style="list-style-type: none"> • <i>Essential School-Wide Practices in Disciplinary Literacy: Grades 6 to 12</i> • <i>Disciplinary Literacy in Action: How to Create and Sustain a School-Wide Culture of Deep Reading, Writing, and Thinking</i>, Ch. 3-5 (“How to Create a School-Wide Culture of Disciplinary Literacy”) • <i>Disciplinary Literacy Inquiry & Instruction</i>, Ch. 7: Taking Disciplinary Literacy Work to Scale While Considering Contextual Factors
Schoolwide Strategies for Literacy Development	2.3.b. Identify available school-wide literacy supports, structures and resources. (Literacy coaches, school librarians, curriculum coordinators, department chairs, mentor teachers, MTSS Supports, etc.). They will be able to identify strategies educators use to forge family, community, and school relationships to enhance students’ content and literacy learning.	<ul style="list-style-type: none"> • <i>Essential School-Wide Practices in Disciplinary Literacy: Grades 6 to 12</i> • <i>Disciplinary Literacy in Action: How to Create and Sustain a School-Wide Culture of Deep Reading, Writing, and Thinking</i>, Ch. 3-5 (“How to Create a School-Wide Culture of Disciplinary Literacy”) • <i>Disciplinary Literacy Inquiry & Instruction</i>, Ch. 7: Taking Disciplinary Literacy Work to Scale While Considering Contextual Factors
Providing Feedback	2.4 Articulate the importance of differentiating instructional processes and product expectations based on frequent, formative, growth-oriented feedback that affirms high academic expectations and support for all students.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 3</u>–Disciplinary Literacy: Planning for and Implementing Assessment (Practice 8)
Selecting High Quality, Diverse and Multimodal Texts	2.5 Select a wide range of high-quality diverse and multi-modal texts authentic to the disciplines of varying complexity, structure, and	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 4</u>–Disciplinary Literacy: Identifying, Developing, and Analyzing Resources and Text Sets • <i>Reading for Understanding</i>, Ch. 5:

	genre to support student inquiry around authentic disciplinary problems. They will be able to select and use evidence-based instructional strategies and materials to develop students' reading and reading comprehension, vocabulary, critical thinking, writing as a process, listening and speaking, viewing and visual representations	<p>Extensive Academic Reading</p> <ul style="list-style-type: none"> • <i>Reading for Understanding</i>, Ch. 8: Disciplinary Inquiry
Inquiry-Based Instruction: Student Choice	2.6.a. Plan disciplinary-specific, problem-based inquiries that engage students in developing and asking questions. They will be able to design opportunities for students that offer choice in modality, topic, medium, etc. in their reading, writing, and communication.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 2</u>-Disciplinary Literacy: Framing Problems and Setting Purpose (Practices 1 & 9) • <i>Reading for Understanding</i>, Ch. 3: The Social and Personal Dimension • <i>Reading for Understanding</i>, Ch. 5: Extensive Academic Reading • <i>Reading for Understanding</i>, Ch. 8: Disciplinary Inquiry
Inquiry-Based Instruction: Collaboration	2.6.b. Plan disciplinary-specific, problem-based inquiries that engage students in developing and asking questions. They will be able to design opportunities for students to collaborate with peers in reading, writing, and creating, and plan for the facilitation of these opportunities.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 2</u>-Disciplinary Literacy: Framing Problems and Setting Purpose (Practices 1 & 9) • <i>Reading for Understanding</i>, Ch. 3: The Social and Personal Dimension • <i>Reading for Understanding</i>, Ch. 8: Disciplinary Inquiry
Inquiry-Based Instruction: Relevance	2.6.c. Plan disciplinary-specific, problem-based inquiries that engage students in developing and asking questions. They will be able to consider and plan for opportunities to connect instruction and content to student identities, communities, and literacy practices.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 2</u>-Disciplinary Literacy: Framing Problems and Setting Purpose (Practices 1 & 9) • <i>Reading for Understanding</i>, Ch. 3: The Social and Personal Dimension • <i>Reading for Understanding</i>, Ch. 8: Disciplinary Inquiry

Explicitly Teaching Vocabulary	2.7.a. Build learning progressions to meet students at their point of understanding and scaffold to support movement along the progression, in reading, writing, speaking, and listening. They will be able to develop plans to integrate strategic vocabulary instruction into a lesson and explicitly teach words that build necessary knowledge for reading and writing texts of instruction	<ul style="list-style-type: none"> • <i>Reading for Understanding</i>, Ch. 7: Knowledge-Building Dimension • EduPaths Disciplinary Literacy <u>Course 7</u>–Teaching Language in the Context of Use (Practices 7 & 10)
Gradual Release of Responsibility: Varied Interaction Structures	2.7.b. Build learning progressions to meet students at their point of understanding and scaffold to support movement along the progression, in reading, writing, speaking, and listening. They will be able to justify choices between individual, partner, small group or whole group activities that intentionally align with student learning objectives.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), <u>Part 1</u> and <u>Part 2</u> • <i>Reading for Understanding</i>, Ch. 3: The Social and Personal Dimension • <i>Reading for Understanding</i>, Ch. 4: The Metacognitive Dimension • <i>Reading for Understanding</i>, Ch. 6: The Cognitive Dimension
Students' Learning Goals and Self/Peer Assessment	3.1.a. Identify data sources that would explain student progress in the discipline and explain the function/purpose of each. They will be able to explain the importance of engaging students in the development of learning goals, as well as in supported, productive self- and peer-assessment and feedback	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 3</u>–Disciplinary Literacy: Planning for and Implementing Assessment (Practice 8) • <i>Reading for Understanding</i>, Ch. 3: The Social and Personal Dimension
Evaluating Students' Learning through Assessments	3.1.b. Identify data sources that would explain student progress in the discipline and explain the function/purpose of each. They will be able to use student work to determine students' disciplinary literacy strengths and needs; select	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 3</u>–Disciplinary Literacy: Planning for and Implementing Assessment (Practice 8) • <i>Reading for Understanding</i>, Ch. 3: The Social and Personal Dimension <p>Possible assessments:</p> <ul style="list-style-type: none"> • Personal Reading History (From <i>Reading for Understanding</i>)

	and administer other formal and informal assessments appropriate for assessing students' disciplinary literacy development.	<ul style="list-style-type: none"> • <u>Learner Interest and Reading Survey (From <i>Reading for Understanding</i>)</u> • <u>Literacy Questionnaire (From University of Michigan)</u> • <u>Rhody Secondary Reading Attitude Assessment</u> • <u>Curriculum Embedded Reading Assessment (From <i>Reading for Understanding</i>)</u> • <u>Content Area Reading Inventory</u>
Culturally and Linguistically Relevant Assessment Practices	3.2.a. Evaluate the implications of language and literacy development on different assessment forms or types. They will be able to engage in observation and assessment guided by an understanding of, and respect for, the student as a member of cultural and linguistic communities.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 3–Disciplinary Literacy: Planning for and Implementing Assessment (Practice 8)</u> <p>Possible assessments:</p> <ul style="list-style-type: none"> • <u>Personal Reading History (From <i>Reading for Understanding</i>)</u> • <u>Learner Interest and Reading Survey (From <i>Reading for Understanding</i>)</u> • <u>Literacy Questionnaire (From University of Michigan)</u> • <u>Rhody Secondary Reading Attitude Assessment</u> • <u>Curriculum Embedded Reading Assessment (From <i>Reading for Understanding</i>)</u> • <u>Content Area Reading Inventory</u>
Assessing Textual Understanding through Higher-Order Thinking Questions	3.2.b. Evaluate the implications of language and literacy development on different assessment forms or types. They will be able to pose culturally responsive questions that foster textual understanding and higher-order engagement with a variety of multi-modal texts	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), Part 1 and Part 2</u> • <u><i>Reading for Understanding</i>, Ch. 3: The Social and Personal Dimension</u> <p>Possible assessments:</p> <ul style="list-style-type: none"> • <u>Curriculum Embedded Reading Assessment (From <i>Reading for Understanding</i>)</u> • <u>Content Area Reading Inventory</u>
Differentiating Instruction through Formative Assessment	3.3.a. Demonstrate an understanding of assessment as an opportunity to identify and build upon student strengths, as well as to address areas of improvement. They will be able to differentiate instructional processes and product expectations based on frequent, formative, growth-	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 3–Disciplinary Literacy: Planning for and Implementing Assessment (Practice 8)</u> <p>Possible assessments:</p> <ul style="list-style-type: none"> • <u>Personal Reading History (From <i>Reading for Understanding</i>)</u> • <u>Learner Interest and Reading Survey (From <i>Reading for Understanding</i>)</u> • <u>Literacy Questionnaire (From University of Michigan)</u> • <u>Rhody Secondary Reading Attitude</u>

	oriented feedback that affirms high academic expectations and support for all students.	<p><u>Assessment</u></p> <ul style="list-style-type: none"> • <u>Curriculum Embedded Reading Assessment (From <i>Reading for Understanding</i>)</u> • <u>Content Area Reading Inventory</u>
Eliciting Students' Thinking	3.3.b. Demonstrate an understanding of assessment as an opportunity to identify and build upon student strengths, as well as to address areas of improvement. They will be able to elicit student thinking to draw conclusions about the student's progress in the disciplinary content	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), <u>Part 1</u> and <u>Part 2</u> • <u><i>Reading for Understanding</i>, Ch. 7: Knowledge-Building Dimension</u>
Designing a Variety of Assessments	3.4.a. Compare and contrast the strengths, limitations, reliability, and validity of discipline-specific assessments. They will be able to design and practice a variety of assessment types (observational, peer-peer evaluation, reflection, benchmark), formats (multiple choice, project-based), and purposes (for learning, of learning).	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 3–Disciplinary Literacy: Planning for and Implementing Assessment (Practice 8)</u> <p>Possible assessments:</p> <ul style="list-style-type: none"> • Personal Reading History (From <i>Reading for Understanding</i>) • <u>Learner Interest and Reading Survey (From <i>Reading for Understanding</i>)</u> • <u>Literacy Questionnaire (From University of Michigan)</u> • <u>Rhody Secondary Reading Attitude Assessment</u> • <u>Curriculum Embedded Reading Assessment (From <i>Reading for Understanding</i>)</u> • <u>Content Area Reading Inventory</u>
Designing Authentic Assessments	3.4.b. Compare and contrast the strengths, limitations, reliability, and validity of discipline-specific assessments. They will be able to prioritize observation and assessment that is closest to actual reading and writing (e.g., prioritizing student work/writing as data for making instructional decisions as opposed to relying on standardized test scores, which can mask proficiencies and areas in need of development).	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 3–Disciplinary Literacy: Planning for and Implementing Assessment (Practice 8)</u> <p>Possible assessments:</p> <ul style="list-style-type: none"> • Personal Reading History (From <i>Reading for Understanding</i>) • <u>Learner Interest and Reading Survey (From <i>Reading for Understanding</i>)</u> • <u>Literacy Questionnaire (From University of Michigan)</u> • <u>Rhody Secondary Reading Attitude Assessment</u> • <u>Curriculum Embedded Reading Assessment (From <i>Reading for Understanding</i>)</u> • <u>Content Area Reading Inventory</u>

<p>Learning about and Appreciating Students' Funds of Knowledge</p>	<p>4.1.a. Honor all learners, positioning them as sense-makers capable of doing meaningful work and as humans worthy of love and affirmation. They will be able to learn about and appreciate students' cultural, religious, family intellectual and personal experiences and resources to inform literacy instruction.</p>	<ul style="list-style-type: none"> ● EduPaths Disciplinary Literacy <u>Course 1</u>–Disciplinary Literacy: Identity and Community ● <u>All About Literacy</u> podcast, “Sociocultural Theories of Literacy” episode with Drs. Raven Jones and Theda Gibbs Grey ● <u>Reading for Understanding</u>, Ch. 3: The Social and Personal Dimension <p>Possible assessments:</p> <ul style="list-style-type: none"> ● Personal Reading History (From <i>Reading for Understanding</i>) ● <u>Learner Interest and Reading Survey (From Reading for Understanding)</u> ● <u>Literacy Questionnaire (From University of Michigan)</u> ● <u>Rhody Secondary Reading Attitude Assessment</u>
<p>Leveraging Students' Funds of Knowledge</p>	<p>4.1.b. Honor all learners, positioning them as sense-makers capable of doing meaningful work and as humans worthy of love and affirmation. They will be able to tap into students' funds of knowledge in support of developing their disciplinary literacy knowledge and unique identities.</p>	<ul style="list-style-type: none"> ● EduPaths Disciplinary Literacy <u>Course 1</u>–Disciplinary Literacy: Identity and Community ● <u>All About Literacy</u> podcast, “Sociocultural Theories of Literacy” episode with Drs. Raven Jones and Theda Gibbs Grey ● <u>Reading for Understanding</u>, Ch. 3: The Social and Personal Dimension <p>Possible assessments:</p> <ul style="list-style-type: none"> ● Personal Reading History (From <i>Reading for Understanding</i>) ● <u>Learner Interest and Reading Survey (From Reading for Understanding)</u> ● <u>Literacy Questionnaire (From University of Michigan)</u> ● <u>Rhody Secondary Reading Attitude Assessment</u>
<p>Incorporating High Quality, Diverse and Multimodal Texts in Instruction</p>	<p>4.2.a. Demonstrate understanding of theories and concepts related to adolescent verbal and/or visual literacy learning and apply this knowledge to learning experiences that develop motivated and engaged literacy learners. They will be able to practice incorporating visual, digital and print texts and experiences designed to</p>	<ul style="list-style-type: none"> ● EduPaths Disciplinary Literacy <u>Course 4</u>–Disciplinary Literacy: Identifying, Developing, and Analyzing Resources and Text Sets ● EduPaths Disciplinary Literacy Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), <u>Part 1</u> and <u>Part 2</u> ● <u>Reading for Understanding</u>, Ch. 4: The Metacognitive Dimension ● <u>Reading for Understanding</u>, Ch. 6: The Cognitive Dimension

	differentiate and enhance students' disciplinary literacy and the learning environment	<ul style="list-style-type: none"> • <i>Reading for Understanding</i>, Ch. 5: Extensive Academic Reading • <i>Reading for Understanding</i>, Ch. 7: Knowledge-Building Dimension
Incorporating High Quality, Diverse and Multimodal Texts for Disciplinary Investigation	4.2.b. Demonstrate understanding of theories and concepts related to adolescent verbal and/or visual literacy learning and apply this knowledge to learning experiences that develop motivated and engaged literacy learners. They will be able to engage students with online texts, databases, and multimodal tools in the service of investigations	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy <u>Course 4</u>–Disciplinary Literacy: Identifying, Developing, and Analyzing Resources and Text Sets • EduPaths Disciplinary Literacy Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), <u>Part 1</u> and <u>Part 2</u> • <i>Reading for Understanding</i>, Ch. 5: Extensive Academic Reading • <i>Reading for Understanding</i>, Ch. 7: Knowledge-Building Dimension
Routines and Strategies for Varied Interaction Structures	4.3.a. Create physical and social literacy-rich environments that use routines and strategies for independent and collaborative learning. They will be able to: establish compelling reasons and allocate time for whole-group, small-group, and paired discussion of verbal/visual texts, using a range of discussion and grouping strategies.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), <u>Part 1</u> and <u>Part 2</u> • <i>Reading for Understanding</i>, Ch. 3: The Social and Personal Dimension • <i>Reading for Understanding</i>, Ch. 4: The Metacognitive Dimension • <i>Reading for Understanding</i>, Ch. 6: The Cognitive Dimension
Gradual Release of Responsibility: Modeling and Instruction	4.3.b. Create physical and social literacy-rich environments that use routines and strategies for independent and collaborative learning. They will be able to: provide modeling and instruction to teach students how to generate their own higher-level questions about verbal/visual texts.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), <u>Part 1</u> and <u>Part 2</u> • <i>Reading for Understanding</i>, Ch. 4: The Metacognitive Dimension • <i>Reading for Understanding</i>, Ch. 6: The Cognitive Dimension
Digital Citizenship	4.4 Promote responsible digital citizenship in literacy and language learning experiences.	<ul style="list-style-type: none"> • EduPaths Disciplinary Literacy Course 5: Planning Text-Based Activities and Discussions (Practices 3 & 5), <u>Part 1</u> and <u>Part 2</u>

Glossary

The terms below are part of the technical and disciplinary language of education. Many of these terms are familiar, but many also have multiple interpretations, so it is important to develop shared understandings of our operating definitions as you consider the practice recommendations in this document. We offer definitions of some important terms below. These particular terms are woven throughout this document and were identified as essential words of academic discourse by members of the statewide working group.

Academic language
Assessment
Authentic
Critical literacy
Critical thinking
Culturally responsive
Curriculum
Differentiation
Digital literacy
Direct instruction
Disciplines
Disciplinary literacy
Discourse
Discursive
Diversity, equity, and inclusion
Explicit instruction
Evidence-based

Identity
Inquiry
Learning progressions
Literacy
Metadiscourse
Modeling
Morphemic analysis
Multimodal
Problem-based learning
Reading comprehension
Scaffolds/Scaffolding
Text
Tiered vocabulary
Visual literacy

Funds of knowledge
Genre

<p>Academic language</p>	<p>Academic language refers to the oral, written, auditory, and visual language proficiency required to learn effectively in schools and academic programs—i.e., it’s the language used in classroom lessons, books, tests, and assignments, and it’s the language that students are expected to learn and achieve fluency in. Frequently contrasted with “conversational” or “social” language, academic language includes a variety of formal-language skills—such as vocabulary, grammar, punctuation, syntax, discipline-specific terminology, or rhetorical conventions—that allow students to acquire knowledge and academic skills while also successfully navigating school policies, assignments, expectations, and cultural norms. Even though students may be highly intelligent and capable, for example, they may still struggle in a school setting if they have not yet mastered certain terms and concepts or learned how to express themselves and their ideas in expected ways. It is important to note that the term “academic language” can be problematic, as it has historically valued White Mainstream English over other equally valid language systems, including African American (Black) English. It is necessary to understand that this term cannot be separated from issues of privilege and power with our educational systems.</p>
<p>Assessment</p>	<p>The term assessment refers to the wide variety of methods or tools that educators use to evaluate, measure, and document the academic readiness, learning progress, skill acquisition, or educational needs of students.</p> <ul style="list-style-type: none"> ● Formal and informal: Formal assessments are generally tests, projects, performances, or other assigned tasks given to a whole class or group that are graded and intended to assess specific learning goals. Informal assessments are generally not graded and are geared more towards supporting the learning of individual students or groups of students. They can be planned or can be enacted in the moment. (Formal and informal assessment definitions overlap quite a bit with summative and formative, below) ● Diagnostic: a type of assessment designed specifically to gather information on students’ skillsets or knowledge in a particular area. The idea is to gather information quickly in what are generally ungraded tasks with the goal of better understanding students’ strengths and challenges with respect to a specific learning target. Diagnostic assessment results are then used to individualize instruction or inform instructional interventions. ● Formative: “Formative assessment is a planned, ongoing process used by all students and teachers during learning and teaching to elicit and use evidence of student learning to improve student understanding of intended disciplinary learning outcomes and support students to become self directed learners. Effective use of the formative assessment process

	<p>requires students and teachers to integrate and embed the following practices in a collaborative and respectful classroom environment: Clarifying learning goals and success criteria within a broader progression of learning; Eliciting and analyzing evidence of student thinking; Engaging in self-assessment and peer feedback; Providing actionable feedback; and Using evidence and feedback to move learning forward by adjusting learning strategies, goals, or next instructional steps.”</p> <ul style="list-style-type: none"> ● Summative: “used to evaluate student learning at the conclusion of a specific instructional period—typically at the end of a unit, course, semester, program, or school year. Summative assessments are typically scored and graded tests, assignments, or projects that are used to determine whether students have learned what they were expected to learn during the defined instructional period.” ● Benchmark: Benchmark (or interim) assessments are “used to evaluate where students are in their learning progress and determine whether they are on track to performing well on future assessments, such as standardized tests, end-of-course exams, and other forms of “summative” assessment. Interim assessments are usually administered periodically during a course or school year (for example, every six or eight weeks) and separately from the process of instructing students (i.e., unlike formative assessments, which are integrated into the instructional process).” ● Standardized: “Standardized assessments are designed, administered, and scored in a standard, or consistent, manner. They often use a multiple-choice format, though some include open-ended, short-answer questions. Historically, standardized tests featured rows of ovals that students filled in with a number-two pencil, but increasingly the tests are computer-based. Standardized tests can be administered to large student populations of the same age or grade level in a state, region, or country, and results can be compared across individuals and groups of students.” ● Reliability and validity: Reliability and validity are both about how well a method or tool measures a particular outcome. Reliability is the degree to which a measure is consistent or produced similar results in similar conditions. Validity is the accuracy of a measure or tool, or whether or not it actually measures the intended outcome. With respect to assessment, reliable assessments provide consistent results that line up with other sources of information. Valid assessments are those that actually measure and evaluate the intended learning targets.
Authentic	<p>“In education, the term authentic learning refers to a wide variety of educational and instructional techniques focused on connecting what students are taught in school to real-world issues, problems, and</p>

	<p>applications. The basic idea is that students are more likely to be interested in what they are learning, more motivated to learn new concepts and skills, and better prepared to succeed in college, careers, and adulthood if what they are learning mirrors real-life contexts, equips them with practical and useful skills, and addresses topics that are relevant and applicable to their lives outside of school.” Tasks and texts that are authentic to a discipline then are those tasks and texts that are connected to actual research, investigation, learning, and work that takes place in an academic domain.</p>
Critical literacy	<p>Critical literacy is the ability to read texts in an active, reflective manner in order to better understand power, inequality, culture, formative assessment, community, and injustice in human relationships.</p>
Critical thinking	<p>Although there are a wide range of definitions for critical thinking, they all tend to share the idea that critical thinking involves the analysis of evidence, observations, and all available information to reach a reasoned conclusion with respect to a problem, issue, or question. Core to critical thinking is the act of questioning and exploring potential biases that might shape evidence or even one’s own conclusions. Critical thinking in some perspectives also attends to issues of power and inequity and involves asking questions about how information or narratives are shaped in that context.</p>
Culturally responsive	<p>Cultural responsiveness requires individuals to be culturally competent. This competency is having an awareness of one’s own cultural identity and views about difference, and the ability to learn and build on the varying cultural and community norms of students and their families. It is the ability to understand the within-group differences that make each student unique, while celebrating the between-group variations that make our [world] a tapestry that culturally responsive leaders need to continuously support minoritized students through examination of assumptions about race and culture. Further, they argue that as demographics continue to shift, so should practice that responds to student needs, understanding that it is “deleterious for students to have their cultural identities rejected in school and unacknowledged as integral to student learning” (Khalifa, Gooden, & Davis, 2016).</p>
Curriculum	<p>The overall design of instruction or opportunities provided for learning. A curriculum may include materials and textbooks, planned activities, lesson plans, lessons, and the total program of formal studies or educational experiences provided by a teacher or school. (Note: Definitions of curriculum vary widely because of alternative perceptions held by theorists about the nature and organization of formal schooling.) ASCD authors provide additional context on various kinds of curricula:</p> <ul style="list-style-type: none"> • Recommended curriculum: derives from experts in the field.

	<ul style="list-style-type: none"> ● Written curriculum: found in the documents produced by the state, the school system, the school, and the classroom teacher, specifying what is to be taught. The written curriculum also includes materials developed by classroom teachers. ● Supported curriculum: the one for which there are complementary instructional materials available, such as textbooks, software, and multimedia resources. ● Tested curriculum: the one embodied in tests developed by the state, school system, and teachers. The term “test” is used broadly here to include standardized tests, competency tests, and performance assessments. ● Taught curriculum: the one that teachers actually deliver. Researchers have pointed out that there is enormous variation in the nature of what is actually taught, despite the superficial appearance of uniformity (Gehrke, Knapp, & Sirotnik, 1992). ● Learned curriculum: the bottom-line curriculum—what students learn. <p>Two other types of curriculum—although not explicit and visible in school curriculum documents, materials, and test—are also worth noting:</p> <ul style="list-style-type: none"> ● The hidden curriculum (a term coined by Jackson, 1968) is the unintended curriculum—what students learn from the school’s culture and climate. It includes such elements as the use of time, allocation of space, funding for programs and activities, and disciplinary policies and practices. ● The excluded curriculum is what has been left out, either intentionally or unintentionally. Eisner (1979) terms this the “null curriculum”, since it is not readily apparent. Gehrke, Knapp, and Sirotnik (1992) point out that the excluded curriculum is “powerful by virtue of its absence” (p.53).
Differentiation	Instruction designed to be specific for individuals or groups of learners to enhance the learning of skills, concepts, and strategies. Modifying the content, the style of teaching, and the products signifies that a customized experience that grew out of a student’s specific learning needs has occurred.
Digital literacy	The ability to use digital technologies, particularly information and communication tools, to locate, consider, evaluate, produce, and share information. Digital literacy thus requires both technical skills related to the access and use of digital tools, as well as cognitive and metacognitive processes related to critical thinking, information processing, etc. Related to digital literacy is the idea of digital citizenship, which is the ability to access and use digital technologies in safe and responsible ways. Digital citizenship also involves appropriate participation in civic discourse and online communities.

<p>Direct instruction</p>	<p>Direct instruction is a broad term used to describe the explicit teaching of a particular skill set or body of knowledge through lecture delivery or demonstrations to students.</p> <p>Direct instruction is a valuable approach to teaching discrete skills and particular sets of facts that students need. It can and should be paired with other instructional approaches like inquiry-based learning.</p> <p>In direct instruction, the teacher is providing information to the students. In the 6-12 classroom, this might be seen as a lecture or dialogue. The students’ role is to listen, ask meaningful questions, take notes, and consolidate information.</p>
<p>Disciplines</p>	<p>An academic discipline is a field of study or a branch of knowledge that is generally connected to programs and specializations that are taught and researched as part of higher education. In other words, academic disciplines are socially constructed categories for learning and problem solving connected to specific areas of expertise and study. Disciplines have a particular object of research or area of study (though these may be shared with other disciplines), and they have a base of shared knowledge specific to the field that is organized by theories and concepts. Disciplines also have specialized tools, vocabularies, and methods used in the course of their work. Conventional content areas in US K-12 schools (science, English, Math, Social Studies) are organized around broad notions of academic disciplines.</p>
<p>Disciplinary literacy</p>	<p>Disciplinary literacy refers to the specialized literacy practices of a particular disciplinary domain or area (e.g. mathematics, history, biology). These practices include the ways that scholars identify, evaluate, use, and produce the wide range of texts and information or data sources typical of their particular discipline, including the specialized reading, writing, and communication practices used to analyze, produce, and share information. Disciplinary literacy also includes specialized vocabularies and communication norms that shift across purposes and audiences authentic to the discipline. Some scholars include ways of thinking about text and communication as a part of disciplinary literacy.</p> <p>Disciplinary literacy instruction helps students learn the content and practices of important academic disciplines and also helps them develop critical literacy and thinking skills. This includes, but is not limited to, the use and production of a wide range of texts. Disciplinary literacy instruction also helps to prepare students for critical media consumption, college level learning, and a range of career trajectories.</p>

<p>Discourse</p>	<p>Discourse, in the context of this document, refers to the ways of using language and communication practices in a particular community or domain. Discourse norms and practices shift across disciplines and/or communities.</p> <p>Explicitly teaching students the discourse of a discipline helps them gain access to content presented in disciplinary texts, prepares them to produce disciplinary work, and builds their metacognitive awareness of language across domains.</p>
<p>Discursive</p>	<p>Discursive means “of or relating to discourse.” So the discursive practices of a discipline, for example, are the distinct ways that people in that discipline generally use communication and language in their work.</p> <p>In mathematical writing, for example, adjectives are used only when needed and with precision. When reading a mathematics text, therefore, mathematicians tend to view adjectives as precise descriptors and don’t look for deeper meanings. In historical writing, however, adjectives have the potential to convey an attitude or perspective about events, so historians think about who the author of a text was as they also analyze their word choice and consider the possible bias of the source. The discursive practices of the disciplines are different, so texts are read differently as well.</p>
<p>Diversity, equity, and inclusion</p>	<p>“Diversity is the presence of differences that may include race, gender, religion, sexual orientation, ethnicity, nationality, socioeconomic status, language, (dis)ability, age, religious commitment, or political perspective. Populations that have been-and remain- underrepresented among practitioners in the field and marginalized in the broader society. Equity is promoting justice, impartiality and fairness within the procedures, processes, and distribution of resources by institutions or systems. Tackling equity issues requires an understanding of the root causes of outcome disparities within our society. Inclusion is an outcome to ensure those that are diverse actually feel and/or are welcomed. Inclusion outcomes are met when you, your institution, and your program are truly inviting to all. To the degree to which diverse individuals are able to participate fully in the decision-making processes and development opportunities within an organization or group.”</p>
<p>Explicit instruction</p>	<p>Explicit instruction involves planned and purposeful instruction in which a teacher clearly lays out identifiable learning goals for students, provides modeling or demonstration of a skill or strategy, opportunities for practicing the developing skill with feedback, and additional independent practice with clear criteria for success.</p>

	<p>Explicit instruction is particularly important for the development of academic vocabulary, disciplinary reading skills, and disciplinary writing skills. Learning goals should drive the selection of instructional strategies, and learning processes need to be clearly modeled and scaffolded for students.</p>
Evidence-based	<p>A widely used adjective in education, evidence-based refers to any concept or strategy that is derived from or informed by objective evidence—most commonly, educational research or metrics of school, teacher, and student performance. Among the most common applications are <i>evidence-based decisions</i>, <i>evidence-based school improvement</i>, and <i>evidence-based instruction</i>. The related modifiers <i>data-based</i>, <i>research-based</i>, and <i>scientifically based</i> are also widely used when the evidence in question consists largely or entirely of data, academic research, or scientific findings.</p>
Funds of knowledge	<p>Funds of knowledge is a concept that emerged from the work of researchers Luis Moll, Cathy Amanti, Deborah Neff, and Norma Gonzalez (2001). They describe funds of knowledge “as the historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being” (p. 133). In other words, funds of knowledge represent the resources that students can call upon in their learning through life experience and in connection to social networks in their community. Attending to funds of knowledge in a learning community can help both teachers and students tap into valuable resources and extend their learning opportunities beyond the classroom walls. A concept that emerged from the work of researchers Luis Moll, Cathy Amanti, Deborah Neff, and Norma Gonzalez (2001). They describe funds of knowledge “as the historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being” (p. 133). In other words, funds of knowledge represent the resources that students can call upon in their learning through life experience and in connection to social networks in their community. Attending to funds of knowledge in a learning community can help both teachers and students tap into valuable resources and extend their learning opportunities beyond the classroom walls.</p>
Genre	<p>Genre is a category of artistic composition, as in music or literature, characterized by similarities in form, style, or subject matter. It is also used to describe different forms or types of writing and communication. A genre has identifiable characteristics and structures that differentiate it from others. While most commonly used in literature and English Language Arts, genre is used across these documents to refer to different types of texts that are produced in the disciplines. Different genres of text have different conventions,</p>

	structures, and other features, and it is important to make these visible to students as they both read and produce a range of texts.
Identity	Age, gender, religious or spiritual affiliation, sexual orientation, race, ethnicity and socioeconomic status are all identities. Some identities are things people can see easily (like race or assumed gender), while other identities are internalized and are not always easy to see (like a disability, socioeconomic status or education level). The broader society, over history, has defined, ascribed meaning, and given status and power to various identities. Since they can shape the experiences of students within classrooms, it is important for teachers to understand social identities to actively develop inclusive learning environments for all students.
Inquiry	Inquiry-based learning is a form of learning that starts with the development and exploration of questions, problems or scenarios—rather than simply delivering information or facts. Inquiry learning involves students in investigations, research, phenomena-based or problem-based learning experiences in which they construct knowledge. It is often facilitated with a teacher helping to guide the inquiry process. While more time consuming, research suggests that inquiry-based learning in all major content areas results in deeper student learning of conceptual knowledge. All of the major sets of learning standards and/or frameworks (CCSS, NGSS, C3) now explicitly attend to and promote inquiry in the classroom. Inquiry-based learning falls along a continuum. Inquiry with high teacher direction and low student direction may be referred to as “Limited Inquiry”. When students have more direction on the continuum, we may use the term “Structured Inquiry”. Further along the continuum with higher student direction is referred to as “Guided Inquiry”, and inquiry with the highest level of student control and the lowest level of teacher control is referred to as “Open Inquiry”.
Learning progressions	“A learning progression is a carefully sequenced set of building blocks that students must master en route to mastering a more distant curricular aim. These building blocks consist of subskills and bodies of enabling knowledge. To illustrate, if a curricular aim calls for students to become skilled writers of persuasive essays, a learning progression for this aim might include a subskill that requires students to be able to craft supporting arguments for a given position. To master this subskill, students might need bodies of knowledge that enable them to understand certain spelling and punctuation rules or to use specific vocabulary—for example, <i>sound</i> , <i>valid</i> , and <i>justifiable</i> —associated with argumentation. The complete learning progression for a persuasive writing skill might include a half dozen subskills.”
Literacy	In this document, literacy is framed as a set of socially constructed (developed by people through interaction) practices that use some form of a symbol system to communicate meaning, along with a

	<p>medium to produce and share it. Therefore, literacy is more than just the skill sets of reading and producing different forms of texts; it also includes the application of these skills “for specific purposes in specific contexts of use” (Scribner & Cole, 1981). Literacy then provides the means to access, process, and communicate information. It is central to all academic disciplines and should thus be included as an important component in disciplinary instruction. Literacy has always been a collection of cultural and communicative practices shared among members of particular groups. As society and technology change, so does literacy. Because technology has increased the intensity and complexity of literate environments, the 21st century demands that a literate person possess a wide range of abilities and competencies, many literacies.</p>
Metadiscourse	<p>Metadiscourse is a term that refers to a discussion about a discussion (and so on), as opposed to a simple discussion about a given topic. It involves communication and consideration of communication itself. Metadiscursive then means “of and pertaining to metadiscourse.”</p> <p>So metadiscursive analysis is the process of using language to analyze and consider how language is used in different contexts. Building metadiscursive awareness is important so that students become more thoughtful and strategic in their use of language. Students move through multiple academic domains over the course of a day, each with differing ways of communicating, and it is helpful to make this visible to them.</p>
Modeling	<p>Modeling is the teaching practice of demonstrating a process for students in order to show them how it is done. Effective modeling involves breaking down complex practices into steps when helpful; questioning learners about what they are seeing; thinking out loud; and engaging students in dialogue about the practice or process once demonstrated. More specific to science and mathematics, modeling also refers to the development of simplified representations of complex concepts or systems that help to explain a phenomenon or to make predictions about the phenomenon. Models can be mental representations or other external representations that exist in diverse formats, from drawings to 3D models to physical enactments of systems.</p>
Morphemic analysis	<p>Morphemic analysis is a strategy used to determine or infer the meanings of words by examining their meaningful parts (prefixes, suffixes, roots, etc). Morphemic analysis is a key skill for building word knowledge that is important across all of the academic disciplines.</p>
Multimodal	<p>Refers to something occurring or being communicated through multiple media of communication or varying forms of expression. For example, a campaign video may have images, music, text, and data</p>

	<p>all presented in one multimodal text. Students regularly interact with multimodal texts (videos with embedded audio text, for example), and need instruction and practice in order to be critical consumers of these texts.</p>
<p>Problem-based learning</p>	<p>A student oriented pedagogical framework in which learning about a given topic is grounded in collaborative work to solve a complex problem or answer an open-ended question. Problem based learning is often used interchangeably with inquiry-based learning. In this document, we preferred to use problem-based learning as we see it as a more open and flexible term. In this framework, engaging problems drive learning and help to motivate students and provide purpose for literate practice. Problem based learning involves problem exploration and definition; elicitation and consideration of prior knowledge; generation of new questions that must be answered; evaluation of possible problem solutions or answers and ways to develop them; and engagement in the process of resolving the problem or answering the question; communication of findings, conclusions, or claims; and the possibility of generating new questions. These practices, in general, are common to all disciplinary learning. Moreover, problems provide purpose for learning and direction for the use and production of text.</p>
<p>Reading comprehension</p>	<p>From C.E. Snow, in International Encyclopedia of Education (Third Edition), 2010: "Reading comprehension is the process of simultaneously constructing and extracting meaning through interaction and engagement with print. The success of a comprehension event depends on a good match of reader skills, text difficulty, and task definition. Reader skills of vocabulary and background knowledge are particularly important. Tasks are defined differently by the demands of different texts (e.g., fiction vs. nonfiction), by different cultures, and by different disciplines.</p> <p>Approaches to comprehension instruction cannot ignore basic word-reading skills for struggling readers, but can usefully promote active engagement with varied texts, in both oral and literate modes, in pursuit of authentic learning goals." <i>Language at the Speed of Sight: How we Read, Why so Many Can't, and What can be Done About It</i> by Mark Seidenberg provides components of text comprehension, which include the following:</p> <ul style="list-style-type: none"> • Lexical decoding: components of words (graphemes, phonemes, syllables, morphemes); relations between print and speech. • Words: vocabulary, grammatical categories (noun, verb, adverb, etc.); syntactic patterns associated with particular words. • Syntax: constituents (noun, verb, and prepositional phrases; clauses); word and constituent order.

	<ul style="list-style-type: none"> • Textbase: propositional structure; referring expression such as anaphora; bridging inferences that connect explicit propositions. • Situation model: situation conveyed in a text; agents, object, locations, instruments, etc.; temporal, spatial, causal, intentional dimensions of the situation; inferences that elaborate a text and link to the reader's background knowledge; images and mental simulations of events. • Genre, rhetorical structure: type of genre (e.g., narrative, expository, descriptive); speech act categories (e.g. assertion, question, command, request); reliability, validity of assertions; theme, moral, or point of the text/discourse. • Pragmatics: goal of the author and reader; attitudes and beliefs (humor, sarcasm, irony, etc.)
<p>Scaffolds/ Scaffolding</p>	<p>A way of teaching in which the teacher provides support in the form of modeling, prompts, direct explanations, and targeted questions – offering a teacher-guided approach to build independent knowledge or skill. As students begin to acquire mastery of targeted objectives, direct supports are reduced, and the learning becomes more student-guided and independent. Scaffolding is key to effective instruction and helps students develop new knowledge and skills when they are challenged. As scaffolds are removed students can become more independent learners. It is important, however, for teachers to use scaffolds strategically so as to appropriately challenge students and engage them in productive struggle.</p>
<p>Text</p>	<p>In literary theory, a text is any object that can be "read," whether this object is a work of literature, a street sign, an arrangement of buildings on a city block, or styles of clothing. In this document, text refers to any kind of encoded information that students are asked to attend to, analyze, use, or produce. As stated, students should have opportunities to work with a wide range of texts. Every academic discipline uses a wide range of texts and multiple ways to produce and communicate knowledge.</p> <ul style="list-style-type: none"> • Visual texts communicate meaning through images and include photographs, illustrations, diagrams, emojis, and various other types of representations. • Digital texts are texts displayed on an electronic device. Single images, short messages, and full-length articles and books can all be presented on electronic devices, either online or offline. Research has indicated that reading these texts requires some of the same skills and some different skills than reading print because of special features available in digital texts, such as hyperlinks, search capability, and various graphic features.

<p>Tiered vocabulary</p>	<p>Tier 1: These are the common, everyday words that most children enter school knowing already and do not typically involve explicit instruction.</p> <p>Tier 2: This tier consists of words that are used across the content areas and are important for students to know and understand. Included here are process words like analyze and evaluate that students will need to access and understand content; to participate effectively in discussion, writing, and problem solving; and to apply their understanding outside the classroom. These are words to own for the rest of life.</p> <p>Tier 3: This tier consists of content specific vocabulary—the words that are often defined in textbooks or glossaries. These words are part of the disciplinary literacy (of mathematics, of science, of technology, etc.) and often convey precise and nuanced concepts and information. Year to year, these terms build and extend the breadth and depth of students' knowledge in and understanding of a subject, and students are unlikely to learn these terms by absorbing them in day-to-day life.</p>
<p>Visual literacy</p>	<p>The ability to analyze, interpret, and make meaning from information presented in the form of an image, or other visual representation. Images, graphics, and other visual representations are used to convey meaning across multiple disciplines. Students need instruction and support to learn the disciplinary, analytical skills of visual literacy.</p>

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