![Maryland State Department of Education logo]

# Advancing College and Career Readiness (CCR)

# Proactive Strategies for Students in Grades 9 – 10

**Maryland State Department of Education**

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## MARYLAND STATE DEPARTMENT OF EDUCATION

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## DOCUMENT HISTORY

| Document Version | Date | Summary of Changes |
|---|---|---|
| 1.0 | July 2024 | Version 1: Includes content for supporting school systems in building infrastructure to help primarily high school students progress to or meet the CCR standards. |
| 2.0 | November 2024 | Version 2 provides guidance to support school systems in embedding college and career readiness (CCR) strategies across content areas and tailored approaches for special populations from PreK through Grade 10. It is organized into three key subsections:<br><br>Prekindergarten – Grade 5<br><br>Grades 6 – 8<br><br>Grades 9 – 10 |

# Background and Purpose

**The Blueprint for Maryland's Future has a central goal of ensuring that all Maryland public school students are College and Career Ready by the end of their 10th grade year, and no later than the time they graduate, thus signifying an ability to transition successfully to postsecondary coursework at a two- or four-year institution, to the workforce, or another pathway. All instruction and assessments in public schools should work toward this goal of preparing students to be successful in employment industries, entry-level credit-bearing courses, or postsecondary education training opportunities.**

The CCR Standard, as adopted by the Maryland State Board of Education in January 2024, offers students two options for meeting the CCR Standard. Students who do not meet the CCR Standard by the end of the 10th grade are provided with additional supports that enable them to meet the CCR Standard before they graduate from high school, pursue certifications, and work-based learning opportunities that prepare them for immediate entry into college and the workforce. For students who are not yet CCR, schools provide targeted interventions and continued career planning to ensure they meet the standard before graduation.

**How to use this guidebook:**

This guide outlines proactive strategies for educators, support teams, and administrators to ensure that all students in Maryland meet the newly adopted CCR standard by the end of 10th grade. It serves as a comprehensive resource for building a strong academic foundation across all grade levels, with a focus on system design and data-driven approaches to support diverse student needs.

The guide is organized to address multiple key audiences, and the Table of Contents is a critical tool for helping these audiences quickly navigate to the sections most relevant to their roles.

**Grade-Level Content Teachers:** Teachers are provided with tools and strategies to weave CCR identity-building into everyday instruction, ensuring that students achieve academic proficiency while also developing a mindset geared towards future CCR success. The guide emphasizes the importance of integrating CCR concepts across all subjects—whether it's math, literacy, science, social studies, or digital learning and literacy —allowing students to see how their academic skills connect to real-world careers and future opportunities.

**Support Teams for Special Populations:** Special attention is given to the needs of students from various backgrounds, including Multilingual Learners (MLL), Special Education, and Advanced Academics. The guide outlines differentiated instructional practices and interventions that help these students thrive academically and socially, ensuring equitable access to CCR pathways.

**Career and College Advisors:** The guide encourages advisors, coaches, and counselor to play a pivotal role in helping students build their CCR identity by weaving career exploration and planning into both academic and extracurricular activities. Advisors are prompted to collaborate with teachers across all subjects to ensure that career readiness concepts are seamlessly integrated into daily instruction, helping students connect their personal interests and academic achievements to future career pathways. This holistic approach enables students to develop a personalized CCR plan that aligns with both academic goals and career aspirations.

**Administrators and School Leaders:** Administrators, who are critical in shaping school culture, will find guidance on how to foster a college and career readiness mindset within their schools. The guide offers strategies for building systems that promote a culture of academic excellence, equity, and accountability, ensuring that CCR standards are embedded into the school's vision and operations.

**Local Education Agencies (LEAs) and District-Level Leaders:** For those responsible for designing and overseeing systems in school districts, the guide emphasizes the importance of data literacy and training. LEAs are encouraged to build robust data systems that track student progress, allowing for timely interventions and adjustments at every grade level. This approach ensures that schools are equipped with the tools to assess CCR progress and implement targeted support strategies.

By expanding CCR development strategies to include specific, grade-banded approaches from Pre-K through grade 10, this guidebook proactively ensures that all Maryland students are prepared to meet CCR goals and are equipped with the skills, knowledge, and experiences to thrive in the workforce, postsecondary education, or other chosen pathways.

# Grades 9-10 College and Career Readiness Strategies for Mathematics Readiness

**To support early mathematics development, Grades 9-10 Math Standards provide clear learning objectives and key concepts. Access the full set of standards through the link below.**

*Significant shifts are expected for high school math course standards and sequencing based on the recommendations of Maryland's Launch Years Task Force and The Maryland Math Standards Framework and Validation Committee. These shifts will be reflected in Maryland's Mathematics Policy and begin to impact high school courses in School Year 2027-2028.*

**Grades 9-10 Literacy Standards**

[Algebra 1 Standards](#)

[Algebra 2 Standards](#)

[Geometry Standards](#)

[Standards for Mathematical Practice](#)

## INSTRUCTIONAL PLANNING
*For Grades 9-10 Math Readiness*

| Strategy | Description |
|---|---|
| Mathematical Modeling | Emphasize using mathematics to model real-world phenomena. This should be a focus of 9-10 mathematics activity and must provide a means for students to mathematize situations to make inferences, estimates, predictions, and conclusions that inform action (CCSSO, 2010; NCTM 2018, 2024). |
| Patterns and Functions | Understand patterns of change in various contexts through analysis of linear, exponential, quadratic, and polynomial equations and functions (NMAP, 2008). |
| Statistical Reasoning | Opportunities for students to collect, analyze, and interpret data and use data to make informed decisions. This must include understanding measures of center, spread, variability, and correlation vs. causation (Franklin & Garfield, 2006; Franklin et al., 2007; NCTM 2000, 2009, 2014, 2018, 2024). |
| Implement High-Quality Instructional Materials | Ensure that classroom instruction aligns to the curriculum adopted in the district. Model tasks using the diagrams, equations, and structures called for in the instructional materials. |

## FOCUSED LEARNING INTERVENTIONS
*For Grades 9-10 Math Readiness*

| Intervention | Objective |
|---|---|
| Use Suggested Scaffolds from Instructional Materials | Identify the supports for diverse learners or suggestions for students who need additional support embedded in district-adopted instructional materials. These may be in the unit and lesson front matter or in callouts throughout the lesson. When internalizing the lesson, note these suggestions and determine how, when, and if the scaffolds could be used. |
| High-Dosage Tutoring | Intensive, school-day tutoring focusing on foundational algebraic thinking concepts has been shown to make significant contributions to students' success in algebra and, therefore, college and career readiness (e.g., Mahnken, 2021; Robinson et al., 2021; SAP, 2021). |
| Collaborative Modeling Tasks | Use small heterogeneous groups to organize engagement with mathematical modeling tasks that investigate real-world phenomena. Collaboration in these groups promotes peer-mentoring, development of communication skills, and peer-led scaffolding (Fujita et al., 22019). |

## ASSESSMENT AND MONITORING
*For Grades 9-10 Math Readiness*

| Assessment | Purpose |
|---|---|
| Diagnostic Formatives | Conduct ongoing assessments focused on symbolic and graphical linear, quadratic, and exponential representations . Be intentional and responsive with instructional strategies to address misconceptions. |
| Curriculum-Based Summatives | Develop quantifiable content aligned goals for student achievement and growth on curriculum embedded summative assessments. |
| Integrated Project-Based Tasks | Utilize project-based assessments that integrate algebra and statistics, such as modeling financial phenomena or analyzing survey data. These tasks allow students to apply mathematical reasoning in authentic ways (i.e., where topics are integrated in application to the real-world), which directly helps assess college and career readiness (Marzano, 2006; NCTM, 2001). |

| Assessment | Purpose |
|---|---|
| State Assessment Data Analysis & Response | Use data reports from statewide assessments to provide targeted co-requisite supports for students. Identify students who are close to proficiency for targeted skill support based interventions and re-assessment. |

## LANGUAGE DEVELOPMENT SUPPORTS

*For MLL Grades 9-10 Math Readiness*

| Strategy | Description |
|---|---|
| Real-World Applications of Mathematical Concepts | Encourage students to explore real-world applications of mathematical principles, such as financial literacy, budgeting, and data analysis. Use project-based learning to demonstrate how mathematics is used in various career fields like engineering, architecture, finance, or technology.<br><br>For multilingual learners, provide examples with visual aids, interactive simulations, or real-world scenarios relevant to their cultural and linguistic backgrounds. This helps students see the practical relevance of mathematics, increasing engagement and readiness for higher education and careers. |
| Collaborative Problem-Solving and Mathematical Discourse | Foster a classroom environment where students engage in mathematical discourse, explaining their thinking, solving problems collaboratively, and challenging each other's reasoning. Encourage the use of mathematical language and provide sentence stems or prompts to support multilingual learners in discussing concepts in both their native language and English. This strategy not only supports conceptual understanding but also enhances communication skills, preparing students for the collaborative work environments they will encounter in both college and their future careers. |
| Use Suggested Supports from Instructional Materials | Identify the resources and instructional strategies for multilingual learners embedded in your district-adopted instructional materials. These may be in the unit and lesson front matter or in callouts throughout the lesson. When internalizing the lesson, note these suggestions and determine which supports are appropriate. |

## BUILDING A CAREER IDENTITY
*For Grades 9-10 Math Readiness*

| Strategy | Description |
|---|---|
| Secondary Transition: Self-Advocacy Strategy [Evidence-based] | Self-advocacy Strategy (SAS) is a published self-determination curriculum (Van Reusen et al., 1994) designed to prepare students to participate in education or transition planning conferences (Hammer, 2004; Lancaster et al., 2002; Test & Neal, 2004; Van Reusen & Boss, 1994) (Rowe et al., 2021). |
| Self-Directed IEP [Evidence-based] | The self-directed (SD) IEP lesson package includes four instructional units that focus on teaching students with disabilities to lead a meeting, report interests, report skills, and report options (e.g., Allen et al., 2001; Diegelmann & Test, 2018) (Rowe et al., 2021). |
| Secondary Transition: Post-School Achievement Through Higher Learning Skills (PATHS) Curriculum [Promising] | The PATHS is a career development curriculum designed specifically for girls that targets internal and external barriers and introduces a wide range of career options (Lindstrom et al., 2013). |
| Data Analysis and Predictive Modeling: Engage Students in Collecting and Analyzing Real-World Data to Create Predictive Models Using Algebraic Concepts. | Bridge classroom algebra with practical applications in fields such as market research, environmental science, and public policy analysis.<br><br>Example:<br>Students: Gather data on topics relevant to their interests or community issues.<br><br>Use linear and quadratic regression to find best-fit models for their data.<br><br>Interpret the meaning of slope, y-intercept, and other key features in the context of their chosen topic.<br><br>Make predictions using their models and discuss the limitations of these predictions.<br><br>Apply algebraic skills to authentic scenarios, enhancing students' ability to interpret and communicate mathematical results.<br><br>Use statistical software, or spreadsheets, to gain experience with tools commonly used in data-driven careers. |

| Strategy | Description |
|---|---|
| Mathematical Modeling for Real-World Problem Solving: Financial Modeling and Analysis: | Example:<br>Introduce students to financial algebra through real-world applications in personal finance and business. Have students create and analyze algebraic models for scenarios such as:<br><br>1. Comparing loan options using linear and exponential functions to model interest accrual and payment plans.<br><br>2. Developing business models with systems of equations to balance costs, revenue, and profit margins.<br><br>3. Creating investment portfolios and using algebraic expressions to calculate potential returns over time.<br><br>4. An example to reinforce algebraic concepts while developing financial literacy and decision-making skills. |

# Grades 9-10 College and Career Readiness Strategies for Literacy Readiness

**To support early development, Grades 9-10 Literacy Standards provide clear learning objectives and key concepts. Access the full set of standards through the link below.**

**Grades 9-12 Literacy Standards**

[Grades 9-12 ELA Content Standards](#)

## INSTRUCTIONAL PLANNING
*For Grades 9-10 Literacy Readiness*

| Strategy | Description |
|---|---|
| Core/Tier 1 Instruction | The term "adolescent literacy" is used to describe literacy skills for students in grades 4-12. These students require effective teaching rooted in science of reading-research and evidence-based practices. Students in this age group need many opportunities to work with print and nonprint materials to make meaning and build relationships in their academic and social worlds. The Maryland College and Career-Ready Standards (MCCRS) provide a shared interdisciplinary approach to ensure middle school and high school students meet the end-of year-expectations that will enable them to be college and career ready. To support adolescent literacy development successfully, we must provide access to engaging and motivating content and instruction to support their continued development. |
| Implement High-Quality Instructional Materials | Ensure that classroom instruction aligns to the curriculum adopted in the district. Use the routines, structures, and language called for in the instructional materials (e.g.. graphic organizers, close-reading routines, essay structure, vocabulary map, response journals). |

| Strategy | Description |
|---|---|
| Questioning | Provide sequences of questions that engage students deeply with the text.<br><br>Design instruction to cultivate every student's ability to read carefully and grasp information—both what the text says explicitly and when drawing inferences from texts.<br><br>Encourage students to cite specific text evidence (quotes and examples) when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener and constructively evaluating others' use of evidence. |
| Vocabulary | Students acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level. They demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to text comprehension.<br><br>Students demonstrate understanding of figurative language, word relationships, and nuances in word meanings. They determine or clarify the meaning of unknown and multiple-meaning words and phrases by analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.<br><br>Students should be exposed to vocabulary games and exercises that focus on word part meaning (morphology) and utilizing word parts (Greek and Latin roots and stems, prefixes and suffixes) to transfer word part knowledge to other words across disciplines |

| Strategy | Description |
|---|---|
| Comprehension | Students determine central ideas or themes of a text and analyze their development in individual texts and across multiple texts. Students summarize key supporting details and ideas and analyze how and why individuals, events, and ideas develop and interact over the course of text. |
| | Students interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone. |
| | Students integrate and evaluate content presented in diverse media and formats and delineate and evaluate an argument and specific claim in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence. |
| | Ask students regularly to research, then express—orally and in writing—information gained from multiple texts and related resources (e.g., illustrations, video clips, maps) to build knowledge on a topic. |
| | Integrate what students have just read (and learned) with what they have previously read (and learned) to build a more coherent understanding of a topic. |
| | Explicit, systematic instruction in writing for all purposes (writing arguments, narratives, and informative/explanatory texts) to support claims, should be occurring daily for students to be able to express ideas effectively and formulate arguments to support claims. Students should be analyzing substantive topics or texts, using valid reasoning and relevant and sufficient evidence. |
| | Design collaborative, small-group, or partner discussions on topics for students to process and extend their learning. |
| | Add student accountability for regularly engaging in a volume of reading both assigned (related to the topics and themes being studied) and chosen by students |

| Strategy | Description |
| --- | --- |
| Writing | Connect writing to what students are reading to deepen comprehension, check for understanding, and ensure all students have equal access to the topic on which they're writing.<br><br>Include writing assignments connected to the literary texts students are reading that target perspective-taking and exploring the emotions and motivations of characters as an on-ramp to self-exploration and reflection.<br><br>Reserve non-text-based writing prompts to advance specific goals rooted in social-emotional learning (reflect on feelings, foster artistic expression, write personal stories). |

## FOCUSED LEARNING INTERVENTIONS

*For Grades 9-10 Literacy Readiness*

| Intervention | Objective |
| --- | --- |
| Prevention as Intervention | To prevent the need for literacy intervention for most students, it is necessary to ensure there exists a comprehensive System of Assessments that addresses all components of the five reading pillars of the Science of Reading (phonological/phonemic awareness, phonics, vocabulary and comprehension) as well as writing. |
| Intervention | Interventions must be evidence-based and specifically address the deficit skill(s). A mismatch between an identified skill deficit(s) and the appropriate intervention(s) is a major cause of limited student progress. All interventions must be executed with integrity and fidelity to be effective. Talk to your district ELA Coordinator/Supervisor to learn more about the assessments and interventions utilized in the district. Progress monitoring should occur regularly while students receive intervention. This will determine if the intervention is working and inform next steps in the process to remediate unfinished learning. |

## ASSESSMENT AND MONITORING
*For Grades 9-10 Literacy Readiness*

| Assessment | Purpose |
|---|---|
| Diagnostic Assessments | Diagnostic Assessments are used to identify students' strengths and identify gaps in learning. Diagnostic assessments assess specific skills or components of reading such as phonological awareness, phonics skills, and fluency. The results of diagnostic assessments inform instruction and intervention and help teachers plan their lessons by identifying areas where students may need additional support or remediation. These assessments are not graded but help inform instruction. Diagnostic assessments can be formal standardized tests or informal measures such as criterion-referenced tests to measure and inform instructional next steps.. all children need this kind of in-depth reading assessment, which is most important for struggling and at-risk readers. |
| Formative Assessment | The main goal of formative assessments is to monitor student learning during the instructional process to provide ongoing feedback. This feedback helps teachers adjust their teaching and helps students improve their learning before the final evaluation. Formative assessments are used continuously throughout the learning process. An example of a formative assessment is assessing all students to determine who has learned concepts of print and which students need additional instruction on the skill. Another example includes an assessment at the end of each phonics unit taught. |
| Curriculum-Based Assessments | Use evidence from curriculum-based summative and formative assessments to work with students to set meaningful goals for growth and achievement. |
| Maryland Comprehensive Assessment Program: English Language Arts and Literacy | The MCAP English Language Arts and Literacy assessments focus on the content outlined in the Maryland College and Career Ready Standards for each grade level. Students read literary and informational passages and engage in multimedia such as video or audio pieces. Students demonstrate their reading comprehension and literacy skills by responding to text-based questions and writing prompts. In the early grades, students also demonstrate their literacy skills through a variety of oral response methods. For students in grades 3 through 8, the assessments are administered toward the end of the school year. |

| Assessment | Purpose |
|---|---|
| End of Course Assessment | Summative assessment used to measure the degree to which a student has mastered grade-level content in all content areas.<br><br>Used for grading and receiving high school credit toward graduation requirements. |

## LANGUAGE DEVELOPMENT SUPPORTS

*For MLL Grades 9-10 Literacy Readiness*

| Strategy | Description |
|---|---|
| Critical Reading and Analysis of Complex Texts | Help students develop the skills needed to analyze and interpret complex, grade-level texts from a variety of genres (e.g., informational texts, literature, technical writing). Teach them to identify key ideas, analyze arguments, and recognize rhetorical devices.<br><br>For multilingual learners, offer scaffolds such as glossaries, sentence frames, or guided reading questions in both English and their native language to support comprehension. By increasing reading complexity and providing opportunities for critical analysis, students can build the literacy skills necessary for postsecondary education and professional environments. |
| Writing for Purpose and Audience | Encourage students to write across different genres—essays, research papers, reports, and creative writing—while emphasizing clarity, coherence, and the ability to tailor writing for specific purposes and audiences.<br><br>For multilingual learners, support the development of academic language through vocabulary-building exercises, writing workshops, and peer review sessions. This helps students refine their writing skills and prepares them for the types of written communication they will encounter in both college and future careers. |
| Use Suggested Supports from Instructional Materials | Identify the supports for multilingual learners embedded in your district-adopted instructional materials. These may be in the unit and lesson front matter or in callouts throughout the lesson. When internalizing the lesson, note these suggestions and determine which supports are appropriate. |

## INDIVIDUALIZED LEARNING SUPPORTS
*For Grades 9-10 Literacy Readiness*

| Strategy | Description |
|---|---|
| Use Suggested Scaffolds from Instructional Materials | Identify the supports for diverse learners or suggestions for students who need additional support embedded in district-adopted instructional materials. These may be in the unit and lesson front matter or in callouts throughout the lesson. When internalizing the lesson, note these suggestions and determine how, when, and if the scaffolds should be used. |

## BUILDING A CAREER IDENTITY
*For Grades 9-10 Literacy Readiness*

### College and Career Readiness State Standards Initiative

The CCR State Standards Initiative outlines a comprehensive framework designed to ensure students are equipped with the knowledge and skills necessary to succeed in college, career, and life, by setting clear, consistent academic benchmarks across all states. As they relate to literacy:

**Students who are College and Career Ready value evidence.**

- "At this level, students are expected to understand more from and make fuller use of written materials, including using a wider range of text evidence to support their inferences. As they address different aspects of the same topic, students make more connections about how complex ideas interact and develop within (and across) books, essays, articles, or other resources. Students learn to evaluate intricate arguments and challenges posed by complex written materials and other resources independently and confidently. Through wide and deep reading of literature and literary nonfiction of steadily increasing sophistication, they expand their literary and cultural knowledge and better understand references and images. They also work to develop the flexibility, concentration, and fluency to produce logical, well-reasoned writings and presentations that are supported by evidence. By writing and participating in a variety of conversations, they will practice asserting and defending claims and showing what they know about a subject using appropriate examples and evidence. These literacy practices that allow students to gain knowledge and skills through the careful study of texts and topics are not only left to ELA, but should also find their rightful place as practices required by the disciplines in science, technical subjects, history, and social studies." *Adopted from Student Achievement Partners: ELA/Literacy Considerations (2020-2021)*

**Students who are College and career-ready build strong content knowledge.**

- Students should be engaging with and able to independently read age-appropriate literary and informational texts within their grade level Lexile Range* Students should have the ability to comprehend multiple literary text types (stories, poetry, drama) as well as informational text types including History/Social Studies, Science, and technical texts.

**Students who are College and Career Ready demonstrate independence.**

- "Students can, without significant scaffolding, comprehend and evaluate complex texts across a range of types and disciplines, and they can construct effective arguments and convey intricate or multifaceted information. Likewise, students are able independently to discern a speaker's key points, request clarification, and ask relevant questions. They build on others' ideas, articulate their own ideas, and confirm they have been understood. Without prompting, they demonstrate command of standard English and acquire and use a wide-ranging vocabulary. More broadly, they become self-directed learners, effectively seeking out and using resources to assist them, including teachers, peers, and print and digital reference materials."

**Students who are College and Career Ready comprehend as well as critique.**

- "Students are engaged and open-minded—but discerning—readers and listeners. They work diligently to understand precisely what an author or speaker is saying, but they also question an author's or speaker's assumptions and premises and assess the veracity of claims and the soundness of reasoning."

**Students who are College and Career Ready use technology and digital media strategically and capably**

- "Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals."

**Students who are College and Career Ready understand other perspectives and cultures.**

- "Students appreciate that the twenty-first-century classroom and workplace are settings in which people from often widely divergent cultures and who represent diverse experiences and perspectives must learn and work together. Students actively seek to understand other perspectives and cultures through reading and listening, and they are able to communicate effectively with people of varied backgrounds. They evaluate other points of view critically and constructively. Through reading great classic and contemporary works of literature representative of a variety of periods, cultures, and worldviews, students can vicariously inhabit worlds and have experiences much different than their own."

### College and Career Readiness Strategies

**Career Awareness and Academic Alignment**

- Career Awareness through Projects: Engage students in project-based learning that connects core subjects (math, science, reading) to real-world careers. For example, science projects might include learning about environmental scientists, while math activities might explore how architects use geometry.

- Career Days and Guest Speakers: Organize career days where professionals from various fields (e.g., engineers, teachers, healthcare workers) talk to students about their jobs. These discussions should link directly to what students are learning in the classroom, helping them see the relevance of their education to future careers.

**Building Career Identity**

- Career Inventories and Self-Reflection: Introduce more structured career inventories that help students begin to identify careers related to their strengths and interests. For example, students could answer questions like, "Do you enjoy solving problems?" or "Do you like working with your hands?" and then explore careers that align with their responses.

- STEM Career Exploration: Focus on STEM-related career paths by integrating coding activities, robotics, or simple engineering challenges. Encourage students to explore how STEM careers shape the world around them, reinforcing the relevance of science and math in their future.

**Strengthening Academic Skills**

- Math and Literacy Integration: Incorporate literacy activities that encourage students to read and write about careers. For example, reading biographies of historical figures or writing about what they want to be when they grow up. In math, engage students in activities like budgeting for a class project or creating a simple business model (e.g., running a lemonade stand).

- Problem-Solving and Critical Thinking: Present students with real-world problems to solve, fostering critical thinking and collaboration. For example, group projects where students work together to design a solution to a community issue (e.g., recycling programs or designing a new playground) help build both academic and career-related skills.

**Financial Literacy Integration**

- Introduction to Budgeting and Saving: Teach students the basics of budgeting and saving by giving them small amounts of "classroom currency" to manage during a project. For example, students might have to budget their resources when working on a group activity or save up their points for classroom rewards.

- Real-Life Math Problems: Use math problems that incorporate financial literacy, such as calculating the cost of items for a school event, comparing prices, or determining how to save money over time. This builds their ability to make practical financial decisions.

**Secondary Transition: "Whose Future Is It? Plus, Rocket Reader" Curriculum [Research-based]**

- Whose Future Is It? is a published curriculum that teaches students how to be involved in their IEP process (Rowe et al., 2019). Rocket Reader is a computer software program that allows students to navigate through Whose Future Is It? book with read aloud and a playback option (Lee et al., 2011; Rowe et al., 2021).

# Grades 9-10 College and Career Readiness Strategies for Social Studies

As students transition from middle to high school, the focus of social studies instruction shifts significantly to prepare them for the complexities of both higher education and the workforce. This chapter is dedicated to exploring effective strategies for teaching social studies to students in grades 9 through 12, emphasizing the importance of aligning instruction with the Maryland Social Studies Standards and the College, Career, and Civic Life (C3) Framework. These standards provide a robust foundation for cultivating critical thinking, inquiry-based learning, and civic engagement—skills that are essential for success in an increasingly interconnected world.

In grades 6-8, social studies instruction primarily emphasizes foundational knowledge and basic skills through interactive activities, guided exploration, and collaborative projects. The curriculum often focuses on building essential understandings of historical events, geographical concepts, and civic principles while fostering inquiry and engagement among students. In contrast, strategies for grades 9-12 are designed to deepen students' analytical abilities and encourage independent thinking. High school students are expected to engage with more complex and nuanced social studies topics, using critical analysis and research skills to understand the broader implications of historical events and contemporary issues. This shift not only prepares students for rigorous academic challenges but also equips them with the necessary competencies to navigate their future careers effectively.

By incorporating these advanced strategies into the classroom, educators can foster a deeper engagement with social studies content while equipping students with the skills and knowledge they need for college and career readiness. This chapter will delve into a variety of instructional strategies that promote inquiry, collaboration, and real-world connections, ensuring that students are prepared to become informed, active participants in their communities and future professions.

## INSTRUCTIONAL PLANNING
*For Grades 9-10 Social Studies Readiness*

| Strategy | Description |
|---|---|
| Socratic Seminars | **Objective:** To enhance communication skills and promote deeper understanding of social studies content through collaborative discourse.<br><br>**Activity Description:** Students participate in structured discussions around open-ended questions related to historical or contemporary issues, drawing on evidence from texts and prior knowledge to support their ideas.<br><br>**Skills Developed:** Oral communication, critical thinking, active listening, and respectful debate.<br><br>**Standards Aligned:** Standard 5.0 Civics: Understand the principles of democracy and the role of citizens. |

| Strategy | Description |
|----------|-------------|
| Mock Trials and Simulations | **Objective:** To enhance understanding of the judicial system and develop critical thinking and public speaking skills through active participation.<br><br>**Activity Description:** Students participate in mock trials or simulations where they assume roles of various stakeholders (e.g., lawyers, judges, witnesses) and engage in legal or civic processes based on historical events or current issues.<br><br>**Skills Developed:** Public speaking, critical thinking, teamwork, and understanding of legal processes<br><br>**Standards Aligned:** Standard 5.0 Civics: Analyze the organization and responsibilities of government roles. Standard 6.0 Skills and Processes |
| Document-Based Question (DBQ) Essays | **Objective:** To improve critical thinking and writing skills while teaching students to construct arguments based on historical evidence.<br><br>**Activity Description:** Students analyze a series of primary and secondary sources related to a historical issue and respond to a prompt by constructing an evidence-based essay that includes a thesis statement, supporting arguments, and conclusions.<br><br>**Skills Developed:** Writing, document analysis, critical thinking, and argumentation.<br><br>**Standards Aligned:** Standard 2.0 History: Analyze the causes and consequences of historical events. |

| Strategy | Description |
|---|---|
| Inquiry-Driven Research Projects | **Objective:** To develop independent inquiry skills and critical analysis while encouraging students to explore topics deeply and formulate their own perspectives.<br><br>**Activity Description:** Students engage in inquiry-driven research projects where they identify a contemporary social issue or historical event that sparks their interest. They formulate research questions, gather data from various sources, including academic articles, primary documents, and interviews, and present their findings through multimedia presentations or comprehensive reports.<br><br>**Skills Developed:** Research skills, critical thinking, data analysis, and public speaking.<br><br>**Standards Aligned:** Standard 6.0 Skills and Processes: Use inquiry skills to locate, analyze, and evaluate information. |

## FOCUSED LEARNING INTERVENTIONS

*For Grades 9-10 Social Studies Readiness*

| Intervention | Objective |
|---|---|
| Inquiry-Based Learning Modules | To foster critical thinking, research skills, and intellectual curiosity by encouraging students to ask questions, investigate topics, and develop their own conclusions. This intervention aims to prepare students for the kind of independent learning they will encounter in college and beyond. |
| Targeted Writing Support | To improve students' writing proficiency by equipping them with the tools and techniques needed to articulate their ideas clearly and effectively in academic contexts. This intervention aims to build their confidence as writers, preparing them for the demands of college-level writing and professional communication. |
| Career Exploration Workshops | To provide students with insights into potential career paths and the skills needed for success in those fields. This intervention aims to inspire students by illustrating how social studies knowledge can be applied in various professions, motivating them to align their academic pursuits with future career goals. |

## ASSESSMENT AND MONITORING

*For Grades 9-10 Social Studies Readiness*

| Assessment | Purpose |
|---|---|
| Document-Based Question (DBQ) Assessments | By engaging with authentic historical documents, students learn to think like historians, developing their analytical and reasoning skills while fostering a deeper understanding of historical context and significance. Specific skills measured are sourcing, contextualization, corroboration, and identifying relevant information.<br><br>**Data Monitoring:** The data can be measured using teacher/LEA/MSDE created rubrics aligned to standards (e.g., MCAP EBAS rubrics). |
| Peer and Self-Assessments | By participating in assessments, students gain insights into their learning processes and develop critical evaluation skills, empowering them to take charge of their educational journeys and prepare for the self-assessment needed in college and the workforce. |
| Inquiry Journals | Inquiry journals provide a space for students to engage in self-directed learning and reflect on their growth. This practice supports deeper learning and helps students develop critical thinking skills, which are essential for academic success and career readiness. |

## ADVANCED ACADEMICS

*For Grades 9-10 Social Studies Readiness*

| Advanced Strategy | Description |
|---|---|
| Inquiry-Based Case Studies | Students analyze real-world case studies related to social justice, political movements, or historical events. They investigate the causes, key figures, and outcomes, culminating in a presentation or debate on their findings. |
| Thematic Inquiry Units | Design thematic units that center around broad social studies themes (e.g., human rights, globalization, economic inequality). Students engage in inquiry-based investigations that include research, analysis, and presentation of findings related to the theme. |
| Collaborative Inquiry Workshops | Organize workshops where students collaborate to investigate a specific social studies topic. They develop research questions, gather data, analyze findings, and present their conclusions to peers. |

## LANGUAGE DEVELOPMENT SUPPORTS

*For MLL Grades 9-12 Social Studies Readiness*

| Strategy | Description |
|---|---|
| Structured Collaborative Learning | Implement cooperative learning strategies that encourage multilingual learners to work with fluent English speakers in diverse groups for collaborative projects, discussions, and problem-solving activities. Each group can be tasked with exploring a specific topic or historical event, allowing students to share their insights, ask questions, and learn from each other. Teachers can facilitate group roles, ensuring that everyone has a chance to contribute and practice their language skills while engaging with the content. |
| Scaffolding Writing Assignments | Provide structured scaffolding for writing tasks, such as essay outlines, graphic organizers, and rubrics that clearly detail expectations for each writing assignment. Conduct mini-lessons focused on specific writing skills, such as thesis development, evidence integration, and argumentative structure. By breaking down the writing process into manageable steps, students can receive guidance on how to organize their thoughts and present their arguments clearly. |
| Inquiry-Based Learning with Choice | Design inquiry-based projects that allow multilingual learners to choose topics of interest related to social studies. Students can formulate their own research questions and explore their cultural backgrounds in relation to the content being studied. By encouraging personal investment in the inquiry process, students can make connections between what they learn in the classroom and their own experiences, leading to more meaningful engagement with the material. <br><br> For multilingual learners, offer support through scaffolded vocabulary instruction, visual aids, and structured outlines to help them analyze and interpret complex texts. This strategy helps students build higher-order thinking skills necessary for both college-level coursework and careers in fields like law, public policy, or social sciences. |

| Strategy | Description |
|---|---|
| Civic Engagement and Global Awareness | Provide opportunities for students to explore current events, civic responsibilities, and global issues. Encourage them to participate in discussions, debates, or simulations related to government, economics, and global challenges. This fosters an understanding of their role as informed citizens and helps them connect classroom learning to real-world contexts.<br><br>For multilingual learners, offer culturally relevant materials and discussion prompts in both English and their home language, enabling them to participate fully. This strategy prepares students for responsible citizenship, advocacy, and careers in public service or international relations. |
| Use Suggested Supports from Instructional Materials | Identify the supports for multilingual learners embedded in your district-adopted instructional materials. These may be in the unit and lesson front matter or in callouts throughout the lesson. When internalizing the lesson, note these suggestions and determine which supports are appropriate. |

## INDIVIDUALIZED LEARNING SUPPORTS

*For Grades 9-10 Social Studies Readiness*

| Strategy | Description |
|---|---|
| Flexible Grouping | Implement flexible grouping strategies in the classroom that allow students to work together based on their individual needs and learning goals. Groups can be formed for specific tasks, such as research projects, discussions, or collaborative assignments, ensuring that students benefit from peer support and diverse perspectives. |
| Choice Boards and Learning Menu | Create choice boards or learning menus that outline various activities and assessments related to social studies topics. Students can select from a range of options that align with their interests and learning preferences, allowing for personalized engagement with the content. |
| Reflection and Goal-Setting Activities | Incorporate regular reflection and goal-setting activities into the curriculum, encouraging students to assess their progress, set personal academic goals, and develop action plans to achieve them. This could include journal entries, discussion prompts, or guided reflection sessions. |

## BUILDING A CAREER IDENTITY
*For Grades 9-10 Social Studies Readiness*

| Strategy | Description |
|---|---|
| Career Pathway Research and Presentations | Assign students to research various career pathways associated with social studies, such as law, public policy, education, international relations, or social justice advocacy. Each student researches the educational requirements, skills needed, daily responsibilities, and potential career trajectories within their chosen field. They can create detailed presentations or reports to share their findings with their classmates. This process might include interviewing professionals in the field or analyzing job postings to understand the skills and qualifications that employers seek. |
| Skills Mapping Activities | Conduct activities where students identify and map out the skills they are developing in their social studies classes and how those skills relate to various careers. Students can create visual representations or charts that connect specific skills (such as critical thinking, research, communication, and analytical skills) to potential career opportunities. This mapping can also include identifying personal strengths and interests that align with particular careers in social studies. |
| Creating a Personal Career Portfolio | Guide students in developing a comprehensive career portfolio that includes research projects, reflections on their learning experiences, resumes, cover letters, and career goals. This portfolio serves as a dynamic document that showcases their academic achievements, skills, and career aspirations. Students can update it regularly as they gain new experiences, such as internships or volunteer work. |
| Engaging in Professional Organizations | Encourage students to join or engage with professional organizations related to social studies and their interests, such as history clubs, debate teams, or youth government programs. These organizations can provide students with access to networking opportunities, mentorship, and resources that enhance their learning and career readiness. |

# Grades 9-10 College and Career Readiness Strategies for Science

Ensuring access to science programming for all students is required by the Code of Maryland Regulations (COMAR) 13A.04.09.01, which states that each local education agency (LEA) shall:

- Provide in public schools an instructional program in science each year for all students in grades prekindergarten—8; and

- Offer in public schools a science program in grades 9—12 which enables students to meet graduation requirements and to select science electives.

The Maryland Next Generation Science Standards are researched-based, three-dimensional standards which require students to make sense of phenomena in the world around them by engaging in scientific and engineering practices and developing a lens which makes connections across scientific domains in preparation for their individual lives and for their roles as citizens in this technology-rich and scientifically complex world. The Maryland Next Generation Science Standards are intended to provide a foundation for all students. Research shows that when provided with equitable learning opportunities, students from diverse backgrounds are capable of engaging in scientific practices and constructing meaning in both science classrooms and informal settings.

As an essential first step to planning, instruction, assessment, and student individualized support, educators will need to familiarize themselves with the science standards to understand the learning targets for students.

## INSTRUCTIONAL PLANNING
*For Grades 9-10 Readiness*

| Strategy | Description |
|---|---|
| Inquiry-Based Learning | Science instruction is student centered where students formulate, refine and evaluate testable questions and design solutions using models and simulations. Students explore science by planning and carrying out investigations that provide evidence for and test conceptual, mathematical, physical, and empirical models using statistical analysis and the comparison of data sets. |
| Real-World Connections (Phenomena or Storylines) | The use of real-world connections allows students to investigate or analyze the boundaries and initial conditions, inputs and outputs of systems to use, synthesize, and devise models to predict and show relationships among variables between those systems and their components in the natural and design world. Making connections between scientific ideas and student's lived experiences, backgrounds, communities, and cultural identities can significantly increase student engagement and further the development of scientific knowledge and skills. |

| Strategy | Description |
|---|---|
| Collaborative Learning | Students work in groups to conduct investigations, solve problems, and engage in discussions to evaluate the validity and reliability of their claims, methods and designs so they can practice teamwork and collaborative problem-solving.<br><br>Students gather, read, and evaluate information from multiple authoritative sources and assess the evidence and usefulness of each source to communicate scientific and/or technical information or ideas in multiple formats (i.e., orally, graphically, textually, mathematically). |
| Productive Student Discourse (Talk) | Students make their thinking visible through talk, explanation, and argument by building on experiences to use evidence from multiple and independent student-generated sources in constructing explanations and designing solutions that are consistent to scientific ideas, principles and theories as well as using scientific reasoning to defend and critique claims and explanations about the natural and designed world to help them learn how to constructively resolve conflicts. |

## FOCUSED LEARNING INTERVENTIONS
*For Grades 9-10 Readiness*

| Intervention | Objective |
|---|---|
| Student Engagement | Provide student choice or autonomy related to asking questions and hands-on activities for the sensemaking of scientific ideas.<br><br>Provide students with various options and resources when addressing scientific ideas that include varying modes of complexity and difficulty that promote agency and productive struggle.<br><br>Create opportunities for individual and collective reflection that promote positive student scientific identities, collaboration, personal coping skills, and feedback. |
| Visual Aids and Manipulatives | Use diagrams, charts, and videos to illustrate complex or abstract concepts, like periodic trends, movement of energy, DNA, or feedback cycles.<br><br>Similarly, models, lab equipment, and interactive tools as manipulatives can help students interact, explore, and investigate the concepts and better understand how systems or structures work or make observations while using them. |

| Intervention | Objective |
|---|---|
| Inclusive Science Classroom Culture | An inclusive science classroom culture supports equitable access to science programming by addressing bias and perceptions about science, scientists, and scientific ability.<br><br>• Provide varied and grade-appropriate opportunities to explore and challenge perceptions about science, scientists, and scientific ability.<br><br>• Engage students with diverse, empowering examples of scientific accomplishment that challenge adverse perceptions, storylines, and practices.<br><br>• Facilitate a variety of grade-appropriate learning and reflection opportunities that cultivate students' positive science identities. |

## ASSESSMENT AND MONITORING

*For Grades 9-10 Science Readiness*

| Assessment | Purpose |
|---|---|
| Science Notebooks/Journals | Science notebooks/journals offer students a dedicated space to document their thoughts and the evolution of their understanding throughout the learning process. As students record their ideas, teachers can monitor comprehension related to the appropriate science standards and foster meaningful discussions. These notebooks not only capture student thinking but also serve as a record of scientific investigations, self-expression and reflection. Rather than being solely assessments for grading, they function as tools for assessing learning over time. This allows teachers to gather ongoing insights into student progress, enabling data-informed decisions for planning and adjusting instructional activities based on student strengths and areas that need improvement. |

| Assessment | Purpose |
|---|---|
| Three-Dimensional Assessments and Feedback | Assessing students in the Maryland NGSS requires three-dimensional assessments, which include disciplinary core ideas, science and engineering practices, and crosscutting concepts. The Life Science Maryland Integrated Science Assessment (LS MISA) is an example of a three-dimensional assessment that can be used to identify student proficiency related to the life science domain. Additional LEA-developed assessments would assess student proficiency in other science domains. Ensuring students have frequent opportunities to display their understanding through informal and formal formative and summative assessment is a critical piece of monitoring and supporting student sensemaking in science. |
| Checklists and rubrics | Teachers use checklists or rubrics to evaluate specific skills or knowledge related to the taught science concepts. This allows teachers to assess how well students grasp science concepts and skills to identify areas where additional support may be needed. Use checklists or rubrics to provide specific and actionable feedback to students on their work, highlighting areas where they are meeting the science standards and areas where they can improve. For example, a checklist might assess a child's ability to analyze data, construct explanations supported by multiple sources, revise models, use mathematical representations to identify certain patterns and analyze patterns or plan, carry out and revise investigations related to chemical reactions, inheritance and variation of traits, and human sustainability. |

## LANGUAGE DEVELOPMENT SUPPORTS

*For MLL Grades 9-10 Science Readiness*

| Strategy | Description |
|---|---|
| Hands-On Inquiry and Investigation | Engage students in hands-on, inquiry-based learning where they conduct investigations, make observations, and test hypotheses. Encourage them to apply the scientific method in real-world scenarios, promoting problem-solving skills and critical thinking.<br><br>For multilingual learners, use visual aids, simplified language, and peer collaboration to support understanding of scientific concepts and procedures. This strategy builds both practical lab skills and the analytical thinking needed for college science courses or careers in STEM fields. |

| Strategy | Description |
|---|---|
| Interdisciplinary Connections and Real-World Applications | Foster students' ability to make connections between science and other subjects, such as mathematics, engineering, or environmental studies. Provide opportunities for students to solve real-world problems by integrating science concepts with other areas of study.<br><br>For multilingual learners, offer scaffolding techniques such as graphic organizers and glossaries to help them connect science vocabulary with content in their home language. This strategy prepares students for interdisciplinary STEM fields and demonstrates the relevance of science in solving global challenges, thus enhancing their college and career readiness |
| Use Suggested Supports from Instructional Materials | Identify the supports for multilingual learners embedded in your district-adopted instructional materials. These may be in the unit and lesson front matter or in callouts throughout the lesson. When internalizing the lesson, note these suggestions and determine which supports are appropriate. |

## BUILDING A CAREER IDENTITY

*For Grades 9-10 Science Readiness*

| Strategy | Description |
|---|---|
| Secondary Transition: Post-School Achievement Through Higher Learning Skills (PATHS) Curriculum [Promising] | The PATHS is a career development curriculum designed specifically for girls that targets internal and external barriers and introduces a wide range of career options (Lindstrom et al., 2013). |

# Grades 9-10 College and Career Readiness Strategies for Digital Learning and School Library Media

The strategies highlighted reflect the need for careful selection of digital tools that align with the developmental needs of students. Personalization, interactive features, and collaborative opportunities are crucial components of effective digital learning strategies, ensuring that technology supports—not detracts from—student learning. The strategies provided below may include some examples of specific resources; however, it is still the Local Education Agency's (LEAs) responsibility to evaluate the accessibility of all digital learning resources and tools according to MD Code, Education, § 7-910.

Educators can accommodate diverse learning preferences and needs, ensuring all students have equal opportunities to access and engage with library and digital resources. The Universal Design for Learning (UDL) framework involves multiple means of engagement, representation, and expression. When used appropriately, this framework helps accommodate diverse learning preferences and needs, ensuring all students have equal opportunities to access and engage with library and digital resources. To learn more about planning for the effective integration of digital tools, please review these additional resources:

- Integrating Technology into a Lesson: Considerations for Teachers

- Maryland Digital Learning Standards for Students

- Maryland Digital Learning Standards for Educators

- Lesson and Program Planning: School Library Media Considerations

- Maryland School Library Media Standards for Learners, Librarians, and Libraries

**SCHOOL LIBRARY MEDIA**

School Library Media (SLM) programs play an essential role in supporting learners in grades 9-10 by offering resources and strategies that foster both academic achievement and personal development. School Library Media Specialists (SLMS) continue to employ personalized and blended learning strategies, tailoring content to meet the unique needs of each student. Access to digital materials such as databases and eBooks ensures equitable support for academic success, aligning with state standards. Student engagement is enhanced through book clubs, and other student-driven activities. Collaboration between teachers and SLMS facilitates the integration of innovative teaching methods, while SLMS provides critical support for in-depth research, writing projects, and capstone projects.

The SLM program places a strong emphasis on digital literacy, equipping students with the skills to manage their digital footprint, use online resources ethically, and understand the impact of social media and screen time on mental health. Instruction also includes building digital resumes and fostering a positive online reputation. Partnerships with public libraries expand opportunities, particularly for students exploring post-graduation plans. Finally, the program actively engages families through events focused on post-graduation options and other future-oriented initiatives, fostering a collaborative environment for student success.

**DIGITAL LEARNING**

In high school, digital learning is even more significant in preparing students for higher education and the workforce. Online courses, virtual labs, and interactive simulations provide opportunities for advanced study and skill development beyond what may be available in their local schools. Personalized learning platforms help high school students focus on their specific areas of interest, while digital assessments and diagnostics are used to track progress and provide targeted support. The focus should be on creating a balance between educational screen use and maintaining social connections and physical activity, as excessive recreational screen time can negatively impact mental health (American Academy of Child and Adolescent Psychiatry, 2024; Berthold, 2022). High school students should also be taught responsible digital citizenship, understanding how to navigate online content, and managing their screen time effectively.

**SCREEN TIME RECOMMENDATION: 9-12 (Ages 14-18)**

For older students, the focus should be on creating a balance between screen use for education, social interaction, and entertainment. Research emphasizes creating a family plan that considers the specific needs and activities of the student. Limiting recreational screen time to about two to three hours per day while ensuring ample time for physical activity, face-to-face social interactions, and proper sleep is recommended. Excessive screen time is linked with an increased risk of anxiety and depression, particularly when spent on social media or other highly interactive content (American Academy of Child and Adolescent Psychiatry, 2024; Berthold, 2022; Ruder, 2019).

## SCHOOL LIBRARY MEDIA STRATEGIES
*For Grades 9-10 Readiness*

| Strategy | Description |
|---|---|
| In-depth Research and Writing Projects | Research and writing are critical skills for high school students, who, after years of practice, are prepared to engage in more advanced research. This includes utilizing resources such as professional journals, academic research papers, and current event media sources. The need for students to effectively evaluate, analyze, and communicate information continues to grow. (American Association of School Librarians, (2018); Maryland State Department of Education, n.d.) |

| Strategy | Description |
|---|---|
| Authentic and Real-world Applications | SLMS can engage high school students through a range of dynamic programs that address their academic, personal, and future aspirations. For example, book clubs offer opportunities for both recreational reading and in-depth literary analysis. Many SLMS also take on leadership roles in guiding the Student Government Association (SGA), fostering student leadership, civic responsibility, and community service initiatives.<br><br>Additionally, students often participate in shaping the library's programming and resources by serving on a Library Advisory Board, empowering them to influence the management and direction of the school library.<br><br>These initiatives not only enhance academic performance but also equip students with essential skills in leadership, critical thinking, and practical knowledge for their future success. (Lance & Kachel, 2018) |
| Digital Literacy | In high school, students will focus on understanding digital footprints, learning how to build a positive online presence that reflects their achievements and interests. Additionally, digital literacy instruction at this level addresses the relationship between screen time and mental health, empowering students to make informed choices about their digital habits.<br><br>High school students also need to develop strong critical thinking and problem-solving skills, especially when conducting research, analyzing data, and drawing conclusions. To communicate effectively in digital spaces, they will learn to use media tools such as video editing, graphic design, and presentation software. Managing tasks and collaborative projects requires proficiency with digital tools like calendars, project management apps, and cloud storage platforms. For students pursuing technological careers, mastering coding languages and computational thinking is key (International Society for Technology in Education, n.d.). |

## DIGITAL LEARNING STRATEGIES

*For Grades 9-10 Science Readiness*

| Strategy | Description |
|---|---|
| Diagnostic Assessments to Drive Targeted Support | Use Feedback and Assessment Tools to implement digital tools that provide immediate and personalized feedback. In compliance with students with an Individualized Education Plan or 504, assessment accommodations should be allowed, such as extended time or alternative formats. Immediate feedback can help students monitor their progress and adjust their learning strategies in real-time. Comprehensive diagnostics help identify specific skills gaps, allowing teachers to provide targeted, efficient instruction that helps students engage more effectively with their grade-level work (Myers, 2021). |
| Online Courses and Modules | Provide opportunities for students to participate in facilitated asynchronous or blended learning experiences through the Maryland Virtual Learning Opportunities Program. Courses could be completed for original or recovery credits. Virtual modules could be utilized to support and reinforce the core curriculum. |
| Acceleration over Remediation | Use interactive content and assessment tools to provide students with timely feedback or allow teachers to check for understanding in real-time. Research shows that remedial education in these grades can negatively impact motivation and achievement. Instead, providing accelerated learning with just-in-time teaching of prerequisite skills helps students succeed in current courses. This keeps students engaged with age-appropriate, challenging material, preventing them from falling into a cycle of perpetual catch-up (Bauld, 2021; Myers, 2021). |
| Collaborative Tools | Use collaborative resources such as interactive whiteboards, Google Apps, Microsoft Tools, or discussion forums. These tools help students engage in group work and discussions without barriers, promoting social interaction and collaboration skills so they can learn with and from their peers. |
| Augmented Reality (AR), Artificial Intelligence (AI), and Virtual Reality (VR) | Provide immersive and multisensory experiences that accommodate different learning styles and preferences when appropriate. These experiences provide opportunities for students to build background knowledge and learn through an alternate modality. |

| Strategy | Description |
|---|---|
| Virtual Labs, Simulations, and Experiments | Incorporate virtual labs and interactive digital simulations into instruction to allow students to engage in hands-on experimentation and inquiry-based learning. These virtual environments enable all students to conduct experiments, observe, and analyze data in accessible formats. |

## DIGITAL LANGUAGE DEVELOPMENT SUPPORTS

*For MLL Grades 9-10 Readiness*

| Strategy | Description |
|---|---|
| Digital Literacy and Critical Thinking | Integrate digital tools and resources that require students to analyze, evaluate, and create content. Encourage students to use online databases, research platforms, and digital communication tools to conduct investigations, collaborate with peers, and present findings. Teach students to critically assess the credibility of online sources and navigate digital information effectively.<br><br>For multilingual learners, provide access to translation tools, bilingual glossaries, and digital literacy tutorials in their home languages, ensuring that all students can build the skills needed for academic and career success in a digitally connected world. |
| Project-Based Learning with Technology | Use project-based learning (PBL) to allow students to apply digital tools to real-world problems or topics. For example, students could create digital presentations, interactive websites, or simulations that demonstrate their understanding of content. Emphasize collaboration with digital platforms, such as Google Docs or online discussion forums, to support peer interaction and teamwork.<br><br>For multilingual learners, offer scaffolds like peer translation, sentence starters, and language-rich multimedia to enhance engagement and comprehension. This strategy equips students with the digital skills needed for success in both higher education and the workforce. |

# Leadership Driven CCR Strategies

**In order to ensure that all students are prepared to meet the College and Career Readiness (CCR) standards by 10th grade, Local Education Agencies (LEAs) play a critical role in shaping the systems and practices that support this goal. The success of CCR initiatives requires district-wide alignment, data-driven decision-making, and an infrastructure that enables educators and administrators to effectively track and support student progress.**

This section provides guidance on key district practices LEA leadership should consider when building a robust CCR framework. These practices include designing systemic supports that align with state standards, implementing comprehensive professional development programs, and creating a culture of continuous improvement. Additionally, LEAs are encouraged to focus on establishing collaborative team structures, integrating data literacy to monitor student progress, and ensuring that CCR goals are embedded in all aspects of instruction, scheduling, and student support systems.

## Strategic Questions for Accessing Grade-Level, Standards-Aligned Instruction

Students who enter a grade with instructional gaps grow at an accelerated pace when they have access to grade-level content with intentional supports in place rather than working with materials "on their level." Intervention, scaffolding, and differentiation should focus on supports for accessing grade level content rather than remedial assignments (TNTP, 2024).

**High Quality Instructional Materials**

- Do adopted instructional materials meet the standard for High-Quality in Maryland?

- Do all academic staff members, including principals, receive ongoing professional learning on strong implementation of adopted High-Quality Instructional Materials (HQIM)? Tailoring scaffolds and support with the HQIM?

- Are school schedules built with enough time for implementation of HQIM?

- Are school schedules built so that students who need additional supports and intervention are able to receive those supports while still engaging in all Tier 1 lessons?

## Mathematics: Leadership Driven Strategies for Building College and Career Readiness

Local Education Agencies (LEAs) may wish to consider the following questions as they develop and implement their Comprehensive Math Plans. Additional context, guidance, and differentiated support will be provided through ongoing feedback cycles beginning in Winter 2024.

**CCR Strategies in Mathematics:**

- What specific strategies and practices are you implementing to ensure students achieve proficiency/CCR Standards in mathematics?

- How are you prioritizing and supporting teachers to use formative assessments consistently to monitor and respond to evident student understandings and misconceptions?

**Student progress toward the CCR Standard:**

- How is your local education agency addressing the needs of students who are not meeting proficiency and/or CCR standards in math?

- How are you identifying and differentiating support for students?

- When are students identified?

- Who has access to the data?

- How is the data analyzed?

- What technical assistance support is available to help all educators understand and respond to the data that is available?

- How are students, families, and teachers informed of next steps towards meeting the CCR standard and what it means to meet the standard?

**Mathematics Interventions:**

- What targeted intervention or enrichment strategies have proven most effective in improving proficiency or CCR outcomes for students struggling in mathematics?

- How are special educators and multilingual teachers provided opportunities to participate in professional learning opportunities about best practices for supporting students in mathematics?

- What structures and systems are in place with scheduling to ensure special educators and multilingual learner teachers have opportunities to co-plan and co-teach mathematics in all grade levels?

**Additional Questions to Consider:**

- How is support for mathematics integrated into other courses?

- How can educators in your subject area better integrate real-world applications and career connections into their daily instruction to enhance CCR?

- How are you leveraging your LEA's Comprehensive Math Plan to support students in

- meeting the math mastery component of the CCR Standard?

- What is your Professional Learning structure for school-based and central office staff

- to ensure math instruction is aligned to evidence-based best practices?

- Classroom practices that encourage and support students to explore their own interests through inquiry, research, and projects; allowing them to demonstrate mastery and share their learning in a variety of ways.

- Example: Students and teachers work together to create a learning agreement, that includes:

- A student-centered goal for learning

- A reflection journal of learning processes and experiences

- A personalized learning schedule guided by students' pace and learning tasks.

- Rubrics and expectations are established with student input.

## Social Studies: Leadership Driven Strategies for Building College and Career Readiness

Local Education Agencies (LEAs) may wish to consider the following questions as they develop and implement CCR strategies in social studies.

**Student Progress Toward the CCR Standard**

- What specific strategies and practices are you implementing to ensure students achieve proficiency/CCR Standards in social studies?

- How are you prioritizing and supporting teachers to use formative assessments consistently to monitor and respond to evident student understandings and misconceptions?

- What targeted intervention or enrichment strategies have proven most effective in improving proficiency or CCR outcomes for students struggling in social studies?

- How are special educators and multilingual teachers provided opportunities to participate in professional learning opportunities about best practices for supporting students in social studies?

- What structures and systems are in place with scheduling to ensure special educators and multilingual learner teachers have opportunities to co-plan and co-teach social studies in all grade levels?

- How is support for social studies integrated into other courses?

- How can educators in your subject area better integrate real-world applications and career connections into their daily instruction to enhance CCR?

- What is your Professional Learning structure for school-based and central office staff

- to ensure social studies instruction is aligned to evidence-based best practices?

## Science: Leadership Driven Strategies for Building College and Career Readiness

Local Education Agencies (LEAs) may wish to consider the following questions as they reflect on providing all students, regardless of their race, ethnicity, gender, socioeconomic status, language, or ability, opportunities to achieve college and career readiness in science. Too often historical and systemic inequalities have resulted in disproportionate access to quality science instruction, perpetuating gaps in science literacy, academic achievement, and career opportunities. To address these disparities and foster a more inclusive and diverse scientific community, it is essential that science instruction prioritizes equity, recognizing and addressing the unique needs and experiences of all learners. By promoting equity in science education, we can empower students from diverse backgrounds to fully participate in and contribute to the scientific enterprise, driving innovation, critical thinking, and solutions to global challenges.

- Access to Science Instruction:

- Are opportunities for all students to adequately learn science provided in all the elementary grades?

- Are there systematic barriers that might prevent certain student groups access or resources needed for quality science instruction?

- Are student's math courses or progress limiting their access to science courses, like chemistry, physics, dual enrollment or AP/IB courses?

- Is the science curriculum being used in the LEA incorporating contributions from scientists of various backgrounds, culturally relevant, and accessible to all students?

- Are there student pathways or tracks in the LEA which limit student's access to science courses that might be foundational to pursuing science in college or as a career?

**Professional Learning:**

- Are science teachers provided professional learning, on differentiated instruction, culturally responsive teaching, and data analysis with an equity lens to ensure they can effectively support all students?

- Are science teachers, including elementary science teachers, provided professional learning related to the shifts of the Maryland Next Generation Science Standards (NGSS) to promote a real-world, student centered, inquiry-based learning environment in the science classroom?

**Community Engagement**

- Are families and communities engaged in the science learning process, recognizing their knowledge and contributions to highlight overlooked issues and inform equitable practices?

- Are there outreach programs to engage historically underrepresented students, families, and communities in the importance of science instruction and possible college majors or careers related to science?

**Assessment System**

- What assessment methods or tools are being used to measure students' progress in science, beyond standardized testing?

- How can teachers regularly assess all student's progress in science to identify areas of need?

- Based on data collected, what strategies are in place to address identified areas of need in the areas of science and engineering practices, disciplinary core ideas, or crosscutting concepts?

### Digital Learning and School Library Media: Leadership Driven Strategies for Building College and Career Readiness

Below are some questions that leaders can ask to explore how digital learning can enhance and support teaching and learning within their systems and schools. By considering these questions, educational leaders can explore the potential of how digital learning can strengthen pedagogical practices and provide targeted support to students who may need additional help.

**System Building Questions:**

- Accessibility: How can we ensure that all students, regardless of their socioeconomic background, have access to high-quality digital learning resources?

- Equity: How can we use digital learning to address equity gaps and provide personalized support to students who may be struggling?

- Integration: How can we seamlessly and thoughtfully integrate digital learning into our existing curriculum and instructional practices to support and enhance teaching and learning?

- Professional Development: What professional development opportunities are needed to equip educators with the skills to effectively and purposely integrate digital tools in the classroom to support and enhance instruction (appropriate to each grade level)?

**Intervention Needs Questions:**

- Personalized Learning: How can digital learning tools be used to provide personalized instruction and support to students who need additional help?

- Adaptive Learning: Can adaptive learning technologies help identify and address students' individual learning needs in real-time?

- Data-Driven Insights: How can data collected from digital learning tools be used to inform our instructional decisions and identify students who may need targeted interventions or enrichment activities?

- Active Engagement: How can we use digital learning to increase student engagement and motivation, especially for students who may be struggling?

**Additional Considerations:**

- Student Agency: How can digital learning tools empower students to take ownership of their learning and develop critical thinking skills?

- Digital Literacy: What digital literacy skills should students develop in each grade to ensure they are equipped to use technology effectively, safely, and responsibly?

- Parental Involvement: How can we involve parents and caregivers in their child's digital learning experience and ensure they understand the benefits of using technology for education?

Below are some questions educational leaders can consider exploring regarding how School Library Media Centers (SLMCs) can effectively support students, educators, and staff in enriching and enhancing classroom lessons. By reflecting on these inquiries, leaders can gain valuable insights into the pivotal role SLMCs play in elevating student outcomes and fostering a supportive learning environment for all stakeholders.

**System Building Questions:**

- Collaboration: How can and are School Library Media Specialists (SLMS) collaborating with classroom teachers to provide integrated learning experiences?

- Curriculum Alignment: How can SLMS ensure their resources and programs align with the school's curriculum and learning objectives?

- Professional Development: What professional development opportunities can be provided to SLMS to equip them with the skills to support classroom teachers and students? How can I leverage the expertise of my SLMS to provide professional learning opportunities to classroom teachers?

**Intervention Needs Questions:**

- Targeted Support: How can SLMS provide targeted support to students who may be struggling in literacy or other areas?

- Literacy Development: What literacy resources and programs can SLMC offer to promote literacy development?

- Digital Literacy: How can SLMC support the development of digital literacy skills in young learners?

- Research Skills: How can SLMS teach students essential research skills at an early age? What skills should they be teaching students as they continue to develop?

**Additional Considerations:**

- Inclusive Learning: How can SLMC create inclusive spaces that support the diverse needs of all students?

- Parent Engagement: How can SLMC involve parents and caregivers in their child's learning experience?

- Community Partnerships: How can SLMC partner with community organizations to provide additional resources and support to students?

**Advanced Academics: Leadership Driven Strategies for Building College and Career Readiness**

This section empowers LEA leadership with actionable strategies to help advanced academic students thrive as they build college and career readiness.

**Additional Recommendations: Front-Loading Talent Development Programming**

Front-loading is a strategy that targets enrichment and gifted services prior to formal identification, which can lead to greater advanced support which in turn will cause more students to access these programs. Schools and systems should cultivate the talent that is currently in their buildings from the earliest years possible. If we as educators provide more opportunities for students to demonstrate their talents, we can maximize their potential.

Students, especially those from historically underserved communities, oftentimes enter schools with opportunity gaps. By exposing all students to quality enrichment programs, schools can begin to provide necessary supports in the primary years which will help to mitigate opportunity gaps and lead to greater achievement of all students.

The [front-loading talent development research scan](#) provides an understanding of the importance of front-loading to develop talent and potential. As noted through this research, frontloading has been shown to be a positive intervention to support more underserved student groups in gifted and advanced programs.

MSDE recently released the [Elementary Talent Development Mini-Grant](#) to offer additional support to schools working to maximize local student potential.

**Additional Recommendations: Enrichment Outside of Traditional School Time**

Time is always a challenge in education, but enrichment can also be used outside of the traditional school time and could benefit particularly those students whose talent is currently untapped. After or before school enrichment clubs and/or weekend and summer enrichment courses help expose students to activities that they might not otherwise have had the opportunity to explore. This could be the vessel that first introduces students to a passion area that connects them deeper to school and learning.

**Additional Recommendations: Cluster Grouping**

This form of grouping, which is not tracking, allows for gifted/advanced students to have instructional time within their classrooms working closely with same-ability students. In this scheduling model, students are placed in mixed-ability classrooms with a cluster of other gifted and advanced students within the same class. Depending on ability group size, students can be clustered and placed in a few classrooms in each grade-level.

**Additional Recommendations: Offer a Continuum of Advanced Learner Services**

This LEAs should move towards offering a continuum of services which will best address the needs of all learners while helping to maximize each student's potential. By offering a continuum of services, exposing students to enrichment opportunities, and frequently evaluating students for the continuum of services, all students are given proper support for growth. Below is an example of such services at the different levels.

**Elementary (PreK-5)**

- Level 1 – Talent Development Front-loading to all students in a classroom and grade level.

- Level 2 – Specific students who have demonstrated potential but do not currently have all criteria to enter gifted programs are provided additional part-time support.

- Level 3 – Identified gifted and talented students explore a differentiated curriculum and are given fulltime support.

**Secondary (6-12)**

- Level 1 – Honors classes are offered and open to all students.

- Level 2 – Subject area acceleration is offered to students who have met LEA determined criteria.

- Level 3 – Early College or Dual Enrollment is offered to students who have met LEA determined criteria.

**Additional Recommendations: Collaborative Professional Activity Time**

Gifted and advanced students should be considered when determining planning, collaborative teaching, and professional learning activities. Below are a few questions to help leaders determine if advanced academics is a consideration in general practices.

- How are advanced students considered in the teacher lesson planning and preparation process?

- Are there opportunities for co-teachers (general education and gifted/talented specialist) to plan together?

- How do you get specific feedback from stakeholders (students, parents, and staff) related to advanced academics?

## Multilingual Learners: Leadership Driven Strategies for Building College and Career Readiness

In this section, LEA leadership can explore collaborative instructional strategies and data-driven support systems designed to empower multilingual learners (MLs). Key questions to guide your leadership include: How can ML teachers, general education teachers, and specialists collaborate more effectively to integrate language support across all subjects? How can professional development be aligned with the specific needs of MLs, and how can data teams better analyze language development and academic achievement to provide targeted support? Additionally, how can family engagement efforts be strengthened through culturally appropriate practices and technology to ensure the success of MLs both in and out of the classroom?

**Collaborative Instructional Strategies and Data-Driven Support for MLs:**

- How can ML teachers, general education teachers, and specialists collaborate more effectively to integrate language support across all subjects? I.e.

- How can literacy programs be adapted to meet the specific language proficiency levels of multilingual learners (MLs)?

- How can digital tools and resources support literacy and language development for MLs?

- How can you assess both language and content mastery in a way that reflects MLs' diverse skill sets?

- What systems can be put in place to facilitate regular communication between ML staff and content teachers about student progress and needs?

- How can co-teaching models be expanded to foster stronger collaboration and improve outcomes for multilingual learners?

- How can data teams better analyze language development and academic achievement data to identify areas where MLs need more targeted support?

- How can school systems ensure that various departments (e.g., special education, gifted and talented, ML) collaborate to meet the unique needs of MLs who might fall into multiple categories?

**Professional Development**

- How can professional development be differentiated to meet the varying levels of educator experience with multilingual learners?

- How can PD be more aligned with the specific needs of MLs, focusing on both language acquisition and content mastery?

- What structures can be developed to encourage teachers to reflect on and share effective instructional strategies for MLs?

- How can ongoing coaching and peer support systems be developed to ensure that educators continue to refine their approaches to teaching MLs?

**Family Engagement and Community Partnership**

- How can we ensure that family workshops and resources are culturally appropriate and reflect the diverse experiences of MLs' families?

- What feedback mechanisms can we create to ensure that family engagement efforts are meeting the needs of ML communities?

- How can we leverage technology to increase accessibility and engagement for families who may face barriers to in-person participation?

**Early Intervention and Special Education: Leadership Driven Strategies for Building College and Career Readiness**

When provided with appropriate supports and services, students with disabilities achieve expectations, master grade-level content standards, and leave school prepared for college, career, and life in the community.  In addition to the effective instructional practices that benefit all students as described throughout this guide, students with disabilities require specific adaptations to the content, method, and delivery of instruction as described in their Individualized Education Programs (IEPs).  The purpose of the IEP is to address the needs that result from the disability in order to enable to student to meet

the expectations for all students and become college and career ready.  Effective development and implementation of IEPs requires collaboration from content teachers, special education teachers, other specialists (such as school psychologists, speech-language pathologists, and occupational therapists, among others).

Success for all Students in the General Education Classroom: A Guide for Inclusive Practices provides strategies and resources for creating a classroom environment and designing and delivering instruction that is accessible and effective for students including those with disabilities.  Implementing the strategies described in that guide and throughout this one provides a foundation of support to which the particular supports and services described in a student's IEP can be implemented to maximize success.

Foundational principles of creating College and Career Readiness success for students with disabilities include:

| Key Action | Explanation |
|---|---|
| Include Assessment Data | Incorporate data from summative assessments and formative assessment measures into the student's present level of academic achievement and functional performance. |
| Develop Data-Informed IEP Goals | Use this data to inform the development of the student's IEP goals and objectives, ensuring alignment with the CCR Standard. |
| Address Grade Level Standards | Create individual goals that address grade-level standards to narrow the performance gap. |
| Ensure Comprehensive Support | Provide holistic support tailored to the unique needs of students with disabilities. |

**Leadership Strategies for Supporting College and Career Success for Students with Disabilities**

- Utilize Assistive Learning Tools: Incorporating technology that aids learning, such as text-to-speech applications, screen readers and magnification software to help students with low vision or reading difficulties.

- Incorporate Specialized Learning Tools: Use digital tools tailored to specific subject areas, like math tools that provide step-by-step problem-solving instructions and writing aids to assist in expressing ideas clearly. For example, for students age 14 and older, use the Maryland Transition Digital Portfolio to build and promote Self-Determination and Self-Advocacy skills. "Ed Puzzle" is an audio book platform that promotes reading access to students who struggle with main ideas and other critical reading concepts.

- Minimize Distraction and Highlight Key Information: Create an environment that reduces distractions and helps students know what is most important to enhance focus and understanding. This can include using applications that block notifications and limit access to distracting websites.

- Read and Implement Individual Education Plans: Ensure that Individualized Education Program (IEPs) are comprehensively developed, thoroughly read and implemented with fidelity across all content areas throughout the school day. These plans provide valuable insights into the students' needs, goals, and the accommodations required for their success. Ensure that students are actively engaged as participants in the development of their secondary transition plan.

- Understand Accommodations and Modifications: Be familiar with the accommodation, modifications, and supplementary aids and services listed in the IEPs, which can include changes in how information is taught and how students are allowed to respond to assignments and assessments. Consult with the student's special education case manager to understand the supports and make a plan to implement and monitor them.

- Provide Opportunities for Success: Work in opportunities for students to practice their IEP goals across different areas of the curriculum and create assignments that cater to their individual learning needs. Embed practice on individualized skills in individual work times, exit tickets, and other classroom routines

- Establish Clear Communication Routines: Maintain clear and concise communication with students, establish a routine, and practice it regularly to create a predictable learning environment. Keep the environment organized and predictable

- Collaborate with Colleagues: Supporting students with disabilities requires a team approach. Establish methods of communication and shared planning with the other professions, such as special education teachers, involved with a student. Create an actionable plan for implementing supports, providing specialized instruction, and troubleshooting challenges. The success of students with disabilities is a shared responsibility.

- Collaborate with Families: Engage with students' families to understand their home environment to build rapport and trust. Collaborate on strategies to support the student's learning at school and at home. Engage families as partners in the learning process. Research has shown that when families are engaged in their child's education, the child performs better in school and has a greater chance of graduating on time

# Future Developments and Next Steps

As we move forward with the continued implementation of the Blueprint, our *College and Career Readiness for 11th and 12th Grade Version 1* guidebook, as well as the *Prek-10 Proactive Strategies* guidebook, will be updated before August 1, 2025. These updates will incorporate additional content from the Comprehensive Arts and other key content areas that contribute to ensuring our students meet the CCR Standard by the end of 10th grade.

Additionally, educators across all academic content areas, as well as those working with unique student populations—such as Multilingual Learners (MLL), Special Education, and Advanced Academics—will participate in a series of professional development sessions during the 2024-2025 school year. These sessions are specifically designed to support the effective use of this guide and will provide targeted strategies for integrating CCR concepts into classroom instruction, equipping all educators with the tools needed to ensure the success of every student in meeting the CCR standard.

Looking ahead to the 2025-2026 school year, the Maryland State Department of Education (MSDE) will share additional information about how Career and Technical Education (CTE) programs of study and new school scheduling models can extend the postsecondary pathways available to young people and further support students in achieving college and career advancement. MSDE will also introduce enhanced data practices for measuring college and career readiness across all grade bands. LEAs should use this school year to begin considering what systems they will set up, how teams will meet, and what data should be collected to effectively monitor CCR progression along a student's academic trajectory.

**Guidebook Feedback**

For readers who wish to contribute ideas or suggestions for future updates to the guide, a QR code and website are available below for submitting contributions. MSDE values feedback, collaboration, best practices, and commendations to continuously improve this resource, ensuring that Maryland remains at the forefront of college and career readiness for all students.

Link: https://bit.ly/CCRcomment

# Other Resources and Templates

This section includes a variety of templates, tools, and additional resources tailored to assist LEAs and

**Points of Contact**

Shall you have questions about the content and practices authored in this guidebook, please do not hesitate to contact an MSDE team member with questions or needs for additional support.

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