

Advancing College and Career Readiness (CCR)

Proactive Strategies for Students in Grades 6 – 8

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: Prekindergarten – Grade 5 Grades 6 – 8 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 6-8 CCR Strategies for Mathematics Readiness

To support early mathematics development, Grades 6-8 Math Standards provide clear learning objectives and key concepts. Access the full set of standards through the link below.

*Moderate shifts are expected for middle 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 middle school courses in School Year 2026-2027.

Grades 6-8 Math Standards

Grade 6 Math Content Standards

Grade 7 Math Content Standards

Grade 8 Math Content Standards

Standards for Mathematical Practice

INSTRUCTIONAL PLANNING

For Grades 6-8 Math Readiness

Strategy	Description
Ratio, Proportion, and Pre-Algebra	Use authentic contexts to explore ratios and proportions. Introduce algebraic reasoning symbolically, graphically, and through embodied experiences (Radford, 2014).
	Use technology tools to enhance conceptual understanding (NCTM, 2024).
Geometry with Coordinate Planes	Incorporate hands-on graphing activities to explore the dynamic relationships revealed through geometric transformations on the coordinate plane. Connect these to algebraic expressions.
Implement High-Quality Instructional Materials	Ensure that classroom instruction aligns to the curriculum adopted in the district. Model tasks using the manipulatives and structures called for in the instructional materials (e.g., centimeter cubes, number lines, integer cards).

FOCUSED LEARNING INTERVENTIONS

For Grades 6-8 Math Readiness

Intervention	Objective
Proportional Reasoning Support	Use a variety of visual tools (e.g., double number lines, tape diagrams, ratio tables) to build an intuitive grasp of ratios, unit rates, and proportions (Fujimura, 2001; Jitendra et al., 2019).
Pre-Algebra Support	Emphasize conceptual understanding before procedural fluency (NMAP, 2008; NCTM, 2014) by using manipulatives and visual aids (e.g., algebra tiles) to make abstract concepts tangible. This intervention should begin with concrete representation and gradually progress to symbolic manipulation as students gain confidence (Van de Walle et al., 2010).
Use Suggested Scaffolds from Instructional Materials	Identify the resources and instructional strategies 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.

ASSESSMENT AND MONITORING

For Grades 6-8 Math Readiness

Assessment	Purpose
Diagnostic Formatives	Conduct ongoing assessments focused on ratios, proportional relationships and reasoning, and symbolic and graphical representations. Be intentional and responsive with instructional strategies to address misconceptions.
Curriculum-Based Summatives	Develop quantifiable grade-level goals for student achievement and growth on curriculum embedded summative assessments.
Progress Monitoring	Use various interactive assessment tools to continuously check students' understanding of foundational concepts and arithmetic fluency (Fuchs et al., 2008).

ADVANCED ACADEMICS

For Grades 6-8 Math Readiness

Advanced Strategy	Description
STEM-Based Projects	Engage students with projects that integrate geometry, algebra, and engineering to enhance their depth of understanding and to build real-world problem-solving skills.
Enrichment Based Tasks and Questioning	Engage students with rich mathematical tasks that require high levels of sense-making, thinking, reasoning, and problem solving.

LANGUAGE DEVELOPMENT SUPPORTS

For MLL Grades 6-8 Math Readiness

Strategy	Description
Malk Talk Routines	Stronger & Clearer Each time – Students write a response to a math problem, then verbally share their response with a partner to get feedback from the listener to improve the response, and revise their original written response based on the feedback they received
	Critique, Correct, and Clarify – Students rewrite a math response from an example that is incorrect, incomplete, or otherwise ambiguous
	Three Reads – Students are guided to read the problem three separate times with three separate purposes with quick discussions between each read.
Graphic Organizers	Frayer Model – used to define and understand a concept by examining its definition, characteristics, examples, and non-examples
	Venn Diagram – Used to allow students to compare the similarities and differences in characteristics of two different mathematical concepts, like area and perimeter.

Strategy	Description
Real-World Problem Solving and Applications	Engage students in real-world math problems that connect to careers and daily life, helping them see the relevance of mathematics beyond the classroom. For example, students can explore topics such as budgeting, data analysis, or engineering challenges. Incorporate project-based learning where students apply mathematical concepts to design solutions for real-world problems. This strategy not only strengthens math skills but also fosters critical thinking, problem-solving, and collaboration, all of which are essential in future careers and postsecondary education. For multilingual learners, scaffold the tasks with visual aids, peer support, and math vocabulary instruction in both the home language and English.
Digital Math Tools and Interactive Learning	Use digital tools like graphing calculators, math software (e.g., GeoGebra, Desmos), and interactive math platforms to reinforce concepts such as algebra, geometry, and data analysis. These tools allow students to experiment with mathematical models, visualize complex problems, and receive instant feedback. Incorporate blended learning approaches that combine technology with in- class instruction, offering personalized practice for diverse learning needs. Ensure that multilingual learners have access to translated instructions or bilingual support to aid in their understanding and proficiency in math concepts.
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.

INDIVIDUALIZED LEARNING SUPPORTS

For Grades 6-8 Math Readiness

Strategy	Description
Use of visual representations and real-world connections	Students should explore math concepts with visual representations, such as number lines, diagrams, and percent bars to help students understand why procedures for computations with fractions make sense.
Differentiated Interventions	Organize and implement responsive interventions such as high dosage tutoring or small groups that focus on developing prerequisite skills needed to access grade level content.

BUILDING A CAREER IDENTITY

For Grades 6-8 Math Readiness

Strategy	Description
Secondary Transition: Career	Begin using the Maryland Transition Digital Portfolio
Study and Extracurricular Activities.	Continue development of Self-Advocacy/Student Involvement in the IEP process
	Develop post-secondary goals for employment, education, training and independence

Strategy	Description	
Career-Focused Entrepreneurship Math	Design projects to reflect real-world scenarios in various careers. For example, calculate profit margins for a small business, "Jess's Tech Repair - fixes mobile phones (choices). She charges \$80 for a screen replacement. The replacement screen costs her \$20, and it takes her 1 hour to do the repair. She values her time at \$30 per hour.	
	a) What is her total cost for the repair?	
	b) What is her profit for each screen replacement?	
	c) What is her profit margin?	
	Step-by-Step SolutionStep 1: Calculate the total costTotal cost = Cost of materials + Cost of laborCost of materials (screen) = \$20Cost of labor = \$30 per hour × 1 hour = \$30Total cost = \$20 + \$30 = \$50	
	Step 2: Calculate the revenue Revenue = Price charged for the service Revenue = \$80	
	Step 3: Calculate the profit Profit = Revenue - Total cost Profit = \$80 - \$50 = \$30	
	Step 4: Calculate the profit margin Profit margin = (Profit ÷ Revenue) × 100 Profit margin = (\$30 ÷ \$80) × 100 = 37.5%	
	Conclusion For each screen replacement: Jess's total cost is \$50 Her revenue is \$80 Her profit is \$30 Her profit margin is 37.5%	
	37.5 cents as profit.	

Strategy	Description
Projects Based Math Learning	Project based learning for students to explore how math is used in specific career(s). For example, students could create a budget for an event (event planning) and then raise the money (part of the project) to then have their event come to life at the schoolbase the event around students own community interest to support community project.

Grades 6-8 CCR Strategies for Literacy Readiness

To support early literacy development, Grades 6-8 Literacy Standards provide clear learning objectives and key concepts. Access the full set of standards through the link below.

Grades 6-8 Literacy Standards

Maryland College and Career Ready Standards for English Language Arts Grades 6-8

INSTRUCTIONAL PLANNING

For Grades 6-8 Literacy Readiness

Strategy	Description
Core 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 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).
Vocabulary	Students should be increasing their vocabulary knowledge throughout the middle school years. Explicit instruction should focus on general academic (Tier 2) words as well as domain-specific (Tier 3) words and phrases sufficient for reading, writing, speaking, and listening at the College and Career Readiness level. Students should be demonstrating independence in gathering vocabulary knowledge when encountering an unknown term that necessary for comprehension of the text. 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 and Writing	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.
	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.
	Students should be able to 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.

FOCUSED LEARNING INTERVENTIONS

For Grades 6-8 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, fluency, 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 and the appropriate intervention 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 6-8 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 and to measure and inform instructional next steps Not all children need this kind of in- depth reading assessment, which is most important for struggling and at-risk readers.

Assessment	Purpose
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.

LANGUAGE DEVELOPMENT SUPPORTS

For MLL Grades 6-8 Literacy Readiness

Strategy	Description
Text Analysis and Critical Thinking	Encourage students to analyze a variety of complex texts (literary, informational, and technical) to develop critical reading and comprehension skills. Provide opportunities for students to engage in close reading and discussions, where they can dissect the structure, themes, and vocabulary of texts. Encourage them to make connections between the text and real-world issues, such as social justice or scientific discoveries. For multilingual learners, provide guided reading sessions with vocabulary support, graphic organizers, and bilingual resources

Strategy	Description
Writing for Real-World Audiences	Have students write for authentic purposes, such as creating persuasive essays, reports, or presentations aimed at real-world audiences. This could include writing letters to local officials, creating multimedia presentations, or drafting research papers on relevant topics. Focus on the writing process, including planning, drafting, revising, and editing. Encourage peer feedback and collaboration. For multilingual learners, scaffold writing tasks with sentence starters, graphic organizers, and peer support to help build confidence in their writing abilities while focusing on grammar, coherence, and academic language.
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 6-8 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 6-8 Literacy Readiness

Strategy	Description
Awareness of Self	Engage students in activities to identify strengths, preferences, self-advocacy, and needs for support. Cultivate abilities and interests through different experiences.
Secondary Transition: Career Preparation through course of Study and Extracurricular activities.	Begin using the Maryland Transition Digital Portfolio. Continue development of Self-Advocacy/Student Involvement in the IEP process Develop post-secondary goals for employment, education, training and independence
Career-Focused Book Clubs	Organize book clubs featuring biographies or fiction related to various careers. Students discuss characters' career paths, challenges, and successes, relating them to their own aspirations.
Cross-Curricular Career Connections	Collaborate with other subjects and educators of other subjects to create writing assignments that explore how literacy skills are used in various career fields (e.g., technical writing in STEM careers, creative writing in advertising).

Grades 6-8 CCR Strategies for Social Studies

As students transition from elementary to middle school, the complexities of social studies instruction expand to prepare them for future academic and career opportunities. This chapter focuses on effective strategies for teaching social studies to students in grades 6 through 8, with a strong emphasis on aligning instruction with the <u>Maryland Social Studies Standards</u> and the <u>College, Career, and Civic Life</u> (C3) Framework. These frameworks provide a foundation for cultivating critical thinking, inquiry-based learning, and civic engagement, which are essential for students' success in a rapidly changing world.

In grades 3-5, social studies instruction primarily emphasizes foundational knowledge and basic skills through hands-on activities, storytelling, and guided exploration. Instruction is often teacher-directed and focused on engaging students in the initial understanding of historical events and geographic concepts. In contrast, the strategies for 6-8 grades shift toward developing higher-level analytical *skills, independence in learning, and the ability to apply knowledge to complex societal issues.* Middle school students are expected to engage in more rigorous inquiry, collaborative projects, and critical discussions that challenge their perspectives and enhance their understanding of the world around them.

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 explore a variety of instructional strategies that promote inquiry, collaboration, and real-world connections, preparing students to become informed, active participants in their communities and future professions.

INSTRUCTIONAL PLANNING

Strategy	Description
Research and Inquiry Projects	Objective: To develop research, critical thinking, and presentation skills while fostering a deeper understanding of historical and civic concepts.
	Activity Details: Students choose a historical event, social issue, or prominent figure to research in-depth. They gather information from multiple sources, including primary and secondary documents, and synthesize their findings into a report, multimedia presentation, or project. The activity culminates with students presenting their work to the class or a broader audience, allowing them to engage with their peers and refine their communication skills.
	Skills Developed: Research, critical thinking, analysis, and public speaking
	Standard Alignment: Standard 6.0 Skills and Processes: Use inquiry skills to locate, analyze, and evaluate information.

Strategy	Description
Problem-Solving Simulations	Objective: To develop problem-solving and collaboration skills by simulating decision-making processes used by professionals in civic and government roles.
	Activity Details: In this activity, students participate in simulations where they act as government officials, community leaders, or diplomats tasked with solving real- world problems. For example, students might work together to design a solution for an environmental issue, urban planning challenge, or community policy decision. They present their solutions and defend their choices in front of the class or a panel of "officials."
	Skills Developed: Problem-solving, decision-making, collaboration, and leadership.
	Standard Alignment: Standard 3.0 Geography: Analyze geographic issues and how they impact human societies.
Civic Engagement and Service Learning Projects	Objective: To engage students in real-world applications of social studies content, fostering civic responsibility and community involvement.
	Activity Details: Students identify a local issue in their community (e.g., environmental sustainability, public health, or school policy), develop a plan to address the issue, and either carry out a service project or advocate for change. They present their proposals to a community group or local government, applying their knowledge of civic responsibility and social change.
	Skills Developed: Civic engagement, leadership, communication, and project management.
	Standards Alignment: Standard 5.0 Civics: Understand the role of civic responsibility and community service
Individualized Research Projects	Support students in developing independent research skills by guiding them through structured, step-by-step projects on historical or civic topics.
	Provide individualized support to help students select research topics, locate credible sources, and structure their findings into a coherent project. Teachers can offer templates, one-on-one guidance, and checkpoints throughout the process.

Strategy	Description
Targeted Vocabulary Instruction	Improve academic language proficiency by introducing and reinforcing key social studies terminology specific to historical events, geography, and civic concepts.
	Use explicit vocabulary instruction with tools such as word walls, flashcards, and sentence stems. Incorporate frequent review and use of academic language in writing and discussion activities
Small-Group Instruction for Document Analysis	Develop critical thinking skills by focusing on how to analyze primary and secondary sources in a small group setting.
	Conduct small group sessions where students learn to break down and interpret complex historical documents. Scaffold the process using guiding questions, annotation techniques, and graphic organizers.

FOCUSED LEARNING INTERVENTIONS

Strategy	Description
Individualized Research Projects	Support students in developing independent research skills by guiding them through structured, step-by-step projects on historical or civic topics.
	Provide individualized support to help students select research topics, locate credible sources, and structure their findings into a coherent project. Teachers can offer templates, one-on-one guidance, and checkpoints throughout the process.
Targeted Vocabulary Instruction	Improve academic language proficiency by introducing and reinforcing key social studies terminology specific to historical events, geography, and civic concepts.
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Strategy	Description
Small-Group Instruction for Document Analysis	Develop critical thinking skills by focusing on how to analyze primary and secondary sources in a small group setting.
	Conduct small group sessions where students learn to break down and interpret complex historical documents. Scaffold the process using guiding questions, annotation techniques, and graphic organizers.

ASSESSMENT AND MONITORING

Strategy	Description
Document-Based Question (DBQ) Assessments (Quantitative Tracking)	Students analyze a set of primary and secondary sources and respond to a question by constructing an evidence-based essay. This helps to assess students' ability to analyze documents, evaluate sources, and write clear, coherent arguments using historical evidence
Performance-Based Assessments (Quantitative and Qualitative Tracking)	Students complete hands-on tasks such as reenacting historical events, creating models of geographic systems, or developing presentations on civic topics.
Formative Assessments (Exit Tickets, Quick Quizzes) (Quantitative and Qualitative Tracking)	Short assessments given at the end of class or a unit to gauge understanding of key concepts, historical events, or geographic topics. Data can include written responses based on EQs that are aligned to standards and measure knowledge of key concepts (e.g., "What events led to the Boston Tea Party?") or brief quizzes (5-10 questions based on disciplinary knowledge, vocabulary, etc.). Disciplinary knowledge and vocabulary can be measured through written responses (brief or extended) and/or selected response items (multiple choice, matching, etc.). Teachers keep track of these data and monitor progress accordingly. Progress Monitoring: May include written responses based on EQs that are aligned to standards and measure knowledge of key concepts (e.g., "What events led to the Boston Tea Party?") or brief quizzes (5-10 questions based on disciplinary knowledge, vocabulary, etc.). Disciplinary knowledge and vocabulary can be measured through written responses (brief or extended) and/or selected response items (multiple choice, matching, etc.).

ADVANCED ACADEMICS

For Grades 6-8 Social Studies Readiness

Strategy	Description
Socratic Seminars	Use Socratic seminars to challenge students with open-ended, higher-order questions that require deep analysis and synthesis of social studies content. Encourage students to lead discussions, critique peer responses, and build on each other's ideas.
Cross-Curricular Projects	Engage advanced students in projects that integrate social studies with other disciplines, such as science, math, or language arts. For example, students could explore the environmental impact of historical events using geographic data or write historical fiction based on researched historical settings.
Extended Analysis of Historical Case Studies	Provide students with complex case studies that require a deeper analysis of historical events, decisions, or conflicts. Students will explore causes, outcomes, and alternative solutions, and present their findings through papers or debates.

LANGUAGE DEVELOPMENT SUPPORTS

Strategy	Description
Sentence Frames and Starters	Introduce key social studies vocabulary before starting a new unit. Use visuals, definitions, and sentence examples to support understanding. Reinforce these terms throughout the lesson with activities like word walls, flashcards, and vocabulary games.
Graphic Organizers	Use graphic organizers such as Venn diagrams, timelines, and cause-and-effect charts to help students visually organize information and better understand complex social studies concepts.
Bilingual Resources and Translanguaging	Provide multilingual learners with bilingual resources (books, dictionaries, glossaries) and allow translanguaging, where students can use both their home language and English to better understand and engage with content.

Strategy	Description
Inquiry-Based Learning	Encourage students to engage in inquiry-based learning by exploring key historical, geographic, and civic concepts through guided questions and problem-solving tasks. Encourage them to research historical events, analyze primary and secondary sources, and evaluate different perspectives on social issues. This approach fosters critical thinking and helps students develop skills in analyzing evidence, understanding context, and constructing well- supported arguments. For multilingual learners, provide access to visual aids, multilingual resources, and guided questions that support language acquisition while allowing them to explore complex topics
Civic Engagement and Global Perspectives	Promote active citizenship by involving students in projects that connect classroom learning with real-world issues. Have them analyze current events, discuss global challenges, and explore solutions that are relevant to their communities or the world. Encourage projects such as creating action plans to address social issues or participating in community service. This strategy helps students develop a sense of responsibility and empowers them to take an active role in shaping their communities and the world. For multilingual learners, provide structured opportunities for them to contribute ideas and work collaboratively in both their native languages and English, ensuring they understand the global context and implications of the topics.
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 6-8 Social Studies Readiness

Strategy	Description
Chunking of Content	Break lessons and assignments into smaller, manageable pieces, focusing on one concept or task at a time. Provide check-ins after each chunk to assess understanding before moving on.
Multi-Sensory Learning Experiences	Use multi-sensory teaching strategies, such as hands-on activities, role-playing, tactile maps, or manipulatives to engage students with different learning styles in social studies lessons.
Use of Realia and Real-World Connections	Bring in real-world objects (e.g., historical artifacts, maps, or models) or examples from current events that relate to the social studies content to create connections between abstract concepts and students' everyday lives.

BUILDING A CAREER IDENTITY

Strategy	Description
Career Exploration in Geography	Have students explore careers in geography such as cartographers, urban planners, geographers, or environmental scientists. They can research how geographic skills are applied in these professions and present their findings.
Cross-Curricular Career Projects	Assign cross-curricular projects that integrate social studies with STEM, art, or language arts (e.g., designing a sustainable city plan, writing legal briefs on historical cases, or creating documentaries about historical events).
Historical Problem-Solving Activities	Present students with a historical problem (e.g., managing the Great Depression or responding to a natural disaster) and have them research how different careers (e.g., economists, public administrators, policymakers) would respond.
Career Day Focused on Civic and Public Service Careers	Organize a career day where professionals in public service careers (e.g., government, law enforcement, education, nonprofit organizations) share their experiences and explain the skills needed for their roles.

Grades 6-8 CCR Strategies for Science

Ensuring access to science programming for all students is required by the <u>Code of Maryland</u> <u>Regulations (COMAR) 13A.04.09.01</u>, 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 can engage 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

Strategy	Description
Inquiry-based learning	Science instruction is student centered where students ask questions to specify relationships between variables and clarify arguments and models. Students explore science by planning and carrying out investigations that apply quantitative analysis, distinguishing between correlation and causation, and include multiple variables to provide evidence to support explanations or solutions.
Real-World Connections (phenomena or storylines)	The use of real-world connections allows students to evaluate how systems interact and identify sub-systems as they build, use and revise models to describe, test and predict more abstract phenomena or design systems. 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 merit and validity of ideas and methods so they can practice teamwork and collaborative problem-solving.
	Students gather, read, and synthesize information from multiple sources and assess the credibility, accuracy, and possible bias of the information to communicate scientific and/or technical information in writing and/or through oral presentations.
Productive Student Discourse (Talk)	Students make their thinking visible through talk, explanation, and argument by building on experiences to use evidence from multiple sources in constructing explanations and designing solutions that are relevant to scientific ideas, principles and theories as well as constructing a convincing argument that supports or refutes claims for those proposed explanations or design solutions about the natural and designed world to help them learn how to constructively resolve conflicts.

FOCUSED LEARNING INTERVENTIONS

Intervention	Objective
Student engagement	Provide student choice or autonomy related to asking questions and hands-on activities for the sensemaking of scientific ideas.
	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.
	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 atoms, waves, food webs, or geologic time.
	Similarly, models, magnets, 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.
	Provide varied and grade-appropriate opportunities to explore and challenge perceptions about science, scientists, and scientific ability.
	Engage students with diverse, empowering examples of scientific accomplishment that challenge adverse perceptions, storylines, and practices.
	Facilitate a variety of grade-appropriate learning and reflection opportunities that cultivate students' positive science identities.

ASSESSMENT AND MONITORING

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.
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 Maryland Integrated Science Assessment (MISA) given in eighth grade is an example of a three-dimensional assessment that identifies student proficiency in this grade band of 6 th through 8 th grade. Additional LEA-developed assessments would be needed to assess student proficiency during the grades. 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.

Assessment	Purpose
Checklists and rubrics	Teachers use checklists or rubrics to evaluate specific skills or knowledge related to the science standards. 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 make observations, communicate findings, or conduct simple investigations related to the structure and properties of matter, natural selection and adaptations, and human impacts on Earth systems.

LANGUAGE DEVELOPMENT SUPPORTS

Strategy	Description
Hand-On Inquiry and Investigation	Encourage students to explore scientific concepts through hands-on investigations and inquiry-based learning. Provide opportunities for students to ask questions, form hypotheses, and conduct investigations to test their ideas. This approach promotes critical thinking, problem-solving, and the development of scientific reasoning skills.
	For multilingual learners, scaffold instructions with visual aids, vocabulary support, and real-world examples to ensure comprehension. Encourage collaboration in groups to discuss findings and draw conclusions, allowing students to use language in meaningful contexts.
Real-World Applications and STEM Career Exploration	Connect science learning to real-world applications by highlighting the relevance of scientific concepts in various careers. Introduce students to STEM (Science, Technology, Engineering, and Math) professionals through guest speakers, virtual field trips, or career exploration activities. Encourage students to investigate how science is used in various industries, such as environmental science, healthcare, engineering, and technology.
	For multilingual learners, provide bilingual resources and opportunities for students to express their understanding both orally and in writing. This strategy can help students see the practical importance of science while also encouraging them to consider future career paths.

Strategy	Description
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 6-8 Science 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

Strategy	Description
Secondary Transition: Career Preparation through Course of Study and Extracurricular Activities.	Begin using the Maryland Transition Digital Portfolio Continue development of Self-Advocacy/Student Involvement in the IEP process Develop post-secondary goals for employment, education, training and independence
Science-Based Community Service	Organize science-based community service projects (e.g., community garden, recycling initiative) to show how scientific knowledge can be applied to benefit society.

Strategy	Description
Technology in Science Careers	Introduce students to various technologies used in scientific fields. This could include basic coding, data analysis software, or specialized scientific equipment.
	Example:
	Career Connection: Climatologist, Data Scientist
	Basic Coding: Python for Data Visualization
	Application: Analyzing and visualizing climate data
	Project: Creating graphs of local temperature data over the past
	decade

Grades 6-8 CCR 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 <u>Universal Design for</u> <u>Learning (UDL)</u> 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 are essential in supporting middle school learners in grades 6-8 by promoting academic growth and cultivating a passion for reading. Collection development emphasizes the importance of providing literature that offers both mirrors and windows for students. A well-curated collection should reflect students' own experiences while also broadening their understanding of others' perspectives. Additionally, as students' critical thinking skills evolve, there is a greater need to enhance nonfiction resources and digital databases. Engaging students in the collection development process by seeking their feedback on interests and informational needs is also essential for ensuring the library meets their academic and personal growth. (Moore, 2023).

School Library Media Specialists (SLMS) deliver tailored content through blended and personalized learning strategies that address individual student needs. Flexible scheduling provides open access to both physical and digital materials, ensuring students have the resources they need. Collaborative efforts between teachers and SLMS incorporate alternative teaching strategies, including book clubs, which allow students to enjoy literature while developing critical thinking skills. Digital literacy instruction is a key component, equipping students with the skills to manage their digital footprint, utilize online resources ethically, and understand the impact of social media and screen time on mental health and well-being.

DIGITAL LEARNING

In middle school, digital learning becomes crucial in fostering a deeper understanding of more complex topics. Blended learning approaches combine traditional classroom instruction with online tools, allowing students to progress at their own pace while also collaborating in face-to-face settings. Adaptive learning technologies enable teachers to provide differentiated instruction, ensuring all students are supported in their learning journeys. Digital resources, such as simulations, virtual labs, and multimedia content, make abstract concepts more tangible, enhancing student engagement and retention. Additionally, it is critical to incorporate structured screen-free times and physical activities to balance the increased digital exposure (American Academy of Child and Adolescent Psychiatry, 2024; Mayo Clinic Health System, 2023).

SCREEN TIME RECOMMENDATION: 6-8 (Ages 11-13)

The American Academy of Pediatrics suggests limiting screen time to around two hours per day for teens, focusing on high-quality educational content. Encouraging students to have "screen-free" times, such as before bedtime and during family meals, can help reduce negative impacts on sleep and physical activity. Engaging in activities that foster creativity and problem-solving offline is also beneficial for cognitive development (American Academy of Child and Adolescent Psychiatry, 2024; Mayo Clinic Health System, 2023).

SCHOOL LIBRARY MEDIA STRATEGIES

For Grades 6-8 Readiness

Strategy	Description
Digital Literacy	Students in grades 6-8 need digital literacy skills to navigate the growing technological demands in both academic and personal areas. Key skills include information literacy, such as effective research methods, digital organization, and ethical information use. Additionally, mastering digital communication and collaboration is critical, requiring students to communicate clearly online, utilize collaborative tools, and practice appropriate digital etiquette.
	Moreover, middle school students are becoming more skilled creators, advancing their abilities in coding and programming while collaborating to produce digital content. A strong emphasis on digital citizenship is crucial at this stage, encouraging students to act responsibly online and understand the global impact of their actions (International Society for Technology in Education, n.d.).

Strategy	Description
Flexible Scheduling	The American Association of School Librarians (AASL) position statement on flexible scheduling advocates for open and flexible access to school libraries, enabling collaboration between librarians and educators. It promotes a fully integrated library model where school librarians co- plan, co-teach, and co-assess lessons with teachers. Flexible scheduling ensures equitable access to library resources for inquiry-based learning and supports personalized instruction. (AASL, 2018)
Teacher Collaboration and Co- teaching Strategies	Research demonstrates that effective collaboration between SLMS and teachers, particularly through the integration of instruction and curriculum, significantly enhances student learning outcomes (Kammer, King, Donahay, & Koeberl, 2021).
	Secondary SLMS are uniquely equipped to serve as collaborators and co-teachers, possessing in-depth knowledge of content curriculum and an extensive array of resources to support teachers. As students develop their writing skills, SLMS play a critical role in teaching them how to take notes, cite sources, and create bibliographies.

DIGITAL LEARNING STRATEGIES

For Grades 6-8 Readiness

Strategy	Description
Blended Learning with Adaptive Technologies	Using adaptive software that adjusts difficulty based on a student's responses helps middle school students stay engaged and allows teachers to pinpoint and address gaps in real-time. Blended learning combines face-to-face instruction with these adaptive tools to maintain rigor (Myers, 2021).
Group-Based Accelerated Learning	Structuring learning activities in collaborative, small groups where peers can support one another has shown positive results for accelerating achievement. Students are better able to access grade-level standards when learning alongside peers rather than being separated for remedial activities. Use collaborative digital tools where appropriate to facilitate this strategy.

Strategy	Description
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.
Interactive Math Manipulatives	Integrate interactive math manipulatives and simulations into lessons to enhance conceptual understanding and problem-solving skills. These tools enable students to explore mathematical concepts through hands-on experiences and visual representations. It is essential to provide students with exposure to virtual tools they will encounter on their online assessments.
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 allow all students to conduct experiments, observe, and analyze data in accessible formats.
Personalized Digital Reading Platforms	Utilize digital reading platforms with customizable features to support students, such as text-to-speech, adjustable font sizes, and highlighting tools. These platforms allow students to access a wide range of reading materials in formats that cater to their individual needs.
Multimedia Presentations and Digital Storytelling	Offer students opportunities to create multimedia presentations, allowing them to demonstrate their knowledge using multiple modalities. This can benefit students who may struggle with traditional written expression. Tools with built-in accessibility features, such as text-to-speech and alt-text support, can make digital storytelling more inclusive.

DIGITAL LANGUAGE DEVELOPMENT SUPPORTS

For MLL Grades 6-8 Readiness

Strategy	Description
Digital Collaboration Tools	Integrate digital collaboration tools such as Google Docs or Microsoft Teams to foster teamwork and peer-to-peer learning. Encourage students to collaborate on research projects, share resources, and provide feedback to each other through digital platforms. These tools help students build communication and teamwork skills, which are essential in both academic and professional settings. For multilingual learners, ensure that the platforms support translation features, and provide guidance on how to use digital tools effectively, helping them navigate language barriers in a tech-savvy environment.
Digital Literacy in Research and Problem-Solving	Teach students how to use digital resources for research and problem-solving by guiding them through credible websites, databases, and online libraries. Help them develop skills in identifying reliable sources, critically analyzing information, and synthesizing findings for academic writing or presentations. Additionally, introduce them to online simulations, coding platforms, or problem-solving software that can enhance their understanding of complex topics, such as math, science, or engineering. Multilingual learners can benefit from tutorials, videos, or guided walkthroughs in their home language to build confidence in digital research and literacy skills.

Advanced Academics for All Subject Areas – Grade 6-8

There are three strategies for advanced learners which are listed below:

Advanced Strategy: Concept Based Learning

- Students are allowed and encouraged to explore and inquire about topics of study by
- Exploring causal relationships
- Identifying patterns
- Investigating purpose and function
- Exploring the process of change
- Investigating varying and multiple perspectives and interpretations
- Exploring responsible action
- Reflecting of new learning and ideas
- Exploring various ways of knowing
- Authentic presentation of learning

Advanced Strategy: Inquiry-Based Learning

Encourage students to share their theories and ideas about a topic through open-ended and creative questioning.

The Creative Inquiry Process should include:

- Learning environments that support intellectual risk-taking
- Opportunities to research a challenging problem or a complex concept
- Opportunities to connect new ideas to prior knowledge
- Offer and receive feedback
- Multiple ways to demonstrate their learning, mastery and understanding.
- Opportunities for collaboration and discourse

Students should be encouraged to formulate their own questions to guide their discovery. Questions should be factual, procedural, conceptual, and /or debateable.

Students may be presented with a topic or concept. Students' inquiry should be guided by the following types of questions

- What do I already know about this?
- What do I want to know about this topic?
- What kinds of resources might help me to understand more?
- How do I know the sources are credible?
- What new questions do I have as a result of my research?
- How can I best demonstrate my understanding?

Example: (Science) Students may be presented with an Enduring Understanding or Statement of Inquiry "Biodiversity relies on maintaining the interdependent balance of organisms within systems.

Students may begin their inquiry by formulating questions about the statement:

- What is Biodiversity?
- What is an organism?
- How does biodiversity rely on interdependent balance?
- What kind of systems rely on interdependent balance?
- How do organisms demonstrate interdependence within those systems?
- What factors can influence the balance or imbalance of an ecosystem?
- To what extent are individual humans responsible for maintaining biodiversity within ecosystems?
- Identifying patterns
- Investigating purpose and function
- Exploring the process of change
- Investigating varying and multiple perspectives and interpretations
- Exploring responsible action
- Reflecting of new learning and ideas
- Exploring various ways of knowing
- Authentic presentation of learning

Advanced Strategy: E3 Learning (Enrich, Extend, Enhance)

- Plan student-centered lessons that include opportunities to enrich, enhance, and extend students' learning experience.
- Enrichment: focuses on subject-specific topics that students can explore
- Extension: a broader study of the concepts related to discipline.
- Enhancement: provides students with the opportunity to make meaningful connections between subjects, applying an interdisciplinary approach that supports the exploration of connections between topics, subjects, and prior learning.

Advanced Strategy: Personalized learning

- 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.

Advanced Strategy: Metacognition and Reflection

Encourage students to reflect on their learning and the process by which they arrive at their ideas and knowledge, through guided teacher feedback, student discussion, and personal reflection <u>and thinking</u> <u>routines.</u>

Example:

Students engage in a cycle of planning and, reflecting on their learning process. They may start by selecting a learning strategy that they may want to engage in to learn the topic or concept. They will monitor their comprehension and learning processes as they are engaged in the experiences. Finally, they will reflect on the learning process and determine how well they learned and what was helpful, effective, and what needs to be more developed.

Students should:

- Set learning goals
- Continuously monitor learning processes
- Identify prior knowledge
- Identify what essential skills/ information is yet unknown

Specific Strategies include:

- Self-questioning
- Graphic organizers and annotated drawings
- Concept mapping
- Checklists
- Reciprocal teaching

Advanced Strategy: Flexible Learning Groups

Cooperative and Collaborative learning: Students can be grouped by strategy, interest, or readiness level. Students can support, challenge, and push the learning of each other.

Advanced Strategy: Peer Mentoring

Middle school students should be paired with a high school student, who has successfully navigated advanced academic courses and can serve as a guide to support middle school students.

Advanced Strategy: Interdisciplinary connections

Exploring the conceptual connection between and among concepts from different disciplines of study.

The authentic application and/or presentation of interdisciplinary connections

Example: Combining research skills, with social studies, language acquisition, math concepts, and other possible core subjects, students could plan a vacation for themselves, a world tour for their favorite band, or strategic diplomatic visits for world leaders.

Students might create week-long travel itineraries to ideal destinations. The product should, for example, include information about:

- Landmarks and their historical significances
- Popular foods, dishes, and the predominant cuisine
- Languages or dialects spoken in the area or country
- Cultural events that take place in the area or country
- Climate
- Currency exchange rates

Advanced Strategy: Genius Hour/Passion Project

Structured and supported time for students to explore their intellectual interests and curiosity. Genius Hour is inquiry-based, student-directed learning. Students lead their own learning by choosing what they study, how they study it, and what they will produce or create to communicate their understanding. (Mulvahill, 2018)

Teachers schedule a specific amount of time each week for students to engage in personally meaningful learning experiences.

Example: Jennifer Gonzalez, creator of <u>Cult of Pedagogy</u> suggests that teachers structure Genius Hour by:

- Planning the allotted time, generally 1 period per week or 20% of the class time, depending on the class schedule.
- Students choose what they want to learn about or explore.
- Students make a brief formal presentation (2 minutes) or "pitch" to the class, indicating their learning goals, why they want to learn about it, how they are going to learn it, and what their idea of success for this project might be.
- Students spend the Genius Hour time learning, researching experimenting, and documenting their learning journey and new discoveries
- Next student work to create their project/ presentations (SEL infusion opportunities could highlight mistakes to learn about resilience, perseverance and grace)
- Student make their presentations (TED talk, Gallery walk, etc

Reflection: students may capture their reflections in a journal, essay or video diary, focusing on their learning journey, what they learned, and the next steps.

Building College and Career Identities in Grades 6-8

Overview

In Grades 6-8, students begin to explore career paths in a more structured and intentional way. This period focuses on aligning academic strengths with potential career opportunities and helping students develop a clearer understanding of how their skills and interests fit into the world of work. By the end of middle school, students should have a broad understanding of the pathways available to them, including career-technical education (CTE), college-bound tracks, and other postsecondary options.

Goals

- Help students connect academic subjects to potential careers, emphasizing the importance of rigorous academic preparation.
- Provide opportunities for students to explore multiple career paths through research, hands-on projects, and exposure to professionals in various fields.
- Introduce students to financial literacy concepts that align with future career planning, including budgeting, saving, and the basics of investing.
- Encourage students to reflect on their personal strengths and interests, using tools like career inventories and mentoring to guide their exploration.

College and Career Readiness Strategies

Career Exploration and Academic Alignment

- Elective Courses and Career Pathways: Offer elective courses that introduce students to specific career fields such as computer science, engineering, health sciences, and the arts. These courses should be designed to provide hands-on learning experiences that allow students to see the connection between their academic studies and career possibilities.
- Career Inventories and Self-Reflection: Use career inventories, such as the RIASEC model, to help students identify careers that match their interests and skills. Encourage them to reflect on how their academic performance in subjects like math, science, and language arts could align with different career paths.
- Mentorship and Role Models: Connect students with professionals through mentorship programs or guest speaker series. This provides them with real-world insights into various career paths and helps them visualize their own future in those careers.

Developing Career Identity

• Personalized Career Research Projects: Have students choose a career they are interested in and conduct in-depth research on it. This project should include learning about the necessary academic qualifications, job responsibilities, and opportunities for advancement within that field. Students can present their findings through reports, presentations, or digital portfolios.

• CTE Exploration: Provide opportunities for students to explore career-technical education (CTE) programs that align with their interests. This could include hands-on workshops, field trips to technical schools or industry sites, and exposure to CTE instructors.

Integrating Financial Literacy into Career Planning

- Introduction to Earning, Saving, and Investing: As students begin to think about their future careers, introduce them to the concepts of earning income, saving for future goals, and the basics of investing. For example, students could create a savings plan for a future goal (e.g., purchasing a car) and explore the impact of saving early and earning interest.
- Budgeting for Career Goals: Help students develop budgeting skills by creating a budget for their future career goals. This might involve planning for postsecondary education costs, career certification programs, or even early business ventures.
- Entrepreneurship and Small Business Projects: Encourage students to explore entrepreneurship through small business projects, such as setting up a school store or running a fundraising campaign. This hands-on experience helps students develop financial literacy, teamwork, and leadership skills.

STEM and Career Readiness Projects

- STEM Challenges with Real-World Applications: Engage students in STEM challenges that connect directly to career paths in technology, engineering, and health sciences. Projects could include designing a prototype, conducting an experiment, or coding a simple program that solves a real-world problem.
- Problem-Based Learning (PBL): Use problem-based learning to simulate real-world challenges that professionals in various industries face. For example, students might be tasked with designing an eco-friendly building, developing a marketing plan for a product, or creating a health awareness campaign.

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.

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 <u>front-loading talent development research scan</u> 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 <u>Elementary Talent Development Mini-Grant</u> 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

Cifted 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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References

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

Achieve. (2018). Integrating Employability Skills: A Framework for All Educators. Retrieved from <u>https://www.achieve.org/publications/integrating-employability-skills-framework-all-educators</u>

Advance CTE. (2016). The State of Career Technical Education: Increasing Access to Industry Experts in High Schools. Retrieved from <u>https://careertech.org/resource/state-of-cte-increasing-access-to-industry-experts</u>

Advance CTE. (2018). Career Exploration in Middle School: Setting Students on the Path to Success. Retrieved from <u>https://careertech.org/resource/career-exploration-middle-school</u>

American Academy of Child and Adolescent Psychiatry. (2024, May). *Children and watching TV*. Retrieved from <u>https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-</u> <u>Guide/Children-And-Watching-TV-054.aspx</u>

American Association of School Librarians. (2018). *AASL standards framework for learners*. American Library Association. Retrieved from <u>https://standards.aasl.org/framework/</u>

American Association of School Librarians. (2019). *Position statement on flexible scheduling*. American Library Association. Retrieved from

American Institutes for Research: [Intensive Intervention Meeting Facilitator's Guide](<u>https://mtss4success.org/resource/tools-support-intensive-intervention-data-meetings</u>)

American School Counselor Association. (2018). The School Counselor and Academic Development. Retrieved from <u>https://www.schoolcounselor.org/Standards-Positions/Position-Statements/ASCA-Position-Statements/The-School-Counselor-and-Academic-Development</u>

Bauld, A. (2021, September 24). Speed up to catch up: Rather than holding kids back a grade, accelerate learning to help students fill in gaps. Harvard Graduate School of Education. Ret <u>https://www.gse.harvard.edu</u>

Behr, M., Harel, G., Post, T. and Lesh, R. (1992) Rational Number, Ratio and Proportion. In: Grouws, D., Ed., Handbook of Research on Mathematics Teaching and Learning, Macmillan Publishing, 296-333

Berthold, J. (2022, December 19). Is too much screen time bad for kids? It's complicated. UCSF News Center. Retrieved from: <u>https://www.ucsf.edu/news/2022/12/425356/too-much-screen-time-bad-kids-its-</u> <u>complicated</u>

Boaler, J. (2002). Experiencing school mathematics: Traditional and reform approaches to teaching and their impact on student learning. Lawrence Erlbaum Associates..

Boardman, A. G., Roberts, G., Vaughn, S., Wexler, J., Murray, C. S., & Kosanovich, M. (2008). <u>Effective</u> <u>instruction for adolescent struggling readers:</u> A practice brief. Portsmouth, NH: RMC Research Corporation, Center on Instruction. Center on Multi-Tiered System of Supports. (n.d.). Essential Components of MTSS. American Institutes for Research. Retrieved from <u>https://mtss4success.org/essential-components</u>

Collaborative for Academic, Social and Emotional Learning (CASEL). What is the CASEL Framework? Retrieved from <u>https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/#responsible</u>

College Board. (2017). A Review of the Literature on College and Career Readiness. Retrieved from <u>https://research.collegeboard.org/media/pdf/literature-review-college-career-readiness.pdf</u>

Common Sense Education. (2021, August). *Digital citizenship research backgrounder*. Common Sense Media. Retrieved from <u>https://www.commonsense.org/system/files/pdf/2021-08/common-sense-education-digital-citizenship-research-backgrounder.pdf</u>

Council of Chief State School Officers: (2021). Using Science to Bolster Literacy Skills in Elementary Education. Washington, DC. Retrieved from <u>https://learning.ccsso.org/using-science-to-bolster-literacy-skills-in-elementary-education</u>

Davis, E., & Haverly, C. Elementary daily schedules: Comprehensiveness, frequency, and consistency of science. NARST 96th Annual International Conference, (). Retrieved from https://par.nsf.gov/biblio/10419452.

Dweck, C. S. (2006). Mindset: The new psychology of success. Random House.

Farmer, L. (2022, October 3). *The intersection of science and joy. Knowledge Quest.* <u>https://knowledgequest.aasl.org/the-intersection-of-science-and-joy/</u>

Frazelle, S., & Nagel, A. (2015). A practitioner's guide to implementing early warning systems (REL 2015– 056). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest. <u>https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2015056.pdf</u>

Fuchs, L. S., Fuchs, D., & Compton, D. L. (2008). Response to intervention: A framework for math and reading. In L. M. Justice & C. Vukelich (Eds.), Achieving excellence in preschool literacy instruction (pp. 166-182). The Guilford Press.

Fujimura, N. (2001). Facilitating children's proportional reasoning: A model of reasoning processes and effects of intervention on strategy change. Journal of Educational Psychology, 93(3), 589–603

Gorlewski, D. (2010). *The impact of parental involvement on academic achievement* (Master's thesis, St. John Fisher University). Fisher Digital Publications. Retrieved from https://fisherpub.sif.edu/cqi/viewcontent.cqi?article=1248&context=education_ETD_masters

Guido, M. (2021, October 6). *Culturally responsive teaching: Examples, strategies & activities for success.* Prodigy Education. <u>https://www.prodigygame.com/main-en/blog/culturally-responsive-teaching/</u>

Harris, J. (2015, May). Getting parents involved in the school library media center. *Library Media Connection*, 33(6), 28-29. Retrieved from <u>https://schoollibraryconnection.com/content/article/1949207</u>

Harvard Family Research Project. (2007). Family Involvement in Middle and High School Students' Education. Retrieved from <u>https://archive.globalfrp.org/publications-resources/browse-our-publications/family-involvement-in-middle-and-high-school-students-education</u>

Jitendra, A. K., Harwell, M. R., Im, S.-H., Karl, S. R., & Slater, S. C. (2019). Improving student learning of ratio, proportion, and percent: A replication study of schema-based instruction. Educational Psychology, 111(6), 1045–1062.

International Society for Technology in Education. (n.d.). *ISTE standards for students*. <u>https://www.iste.org/standards/students</u>

Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., and Torgesen, J. (2008). <u>Improving adolescent</u> <u>literacy: Effective classroom and intervention practices:</u> A Practice Guide (NCEE #2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <u>http://ies.ed.gov/ncee/wwc</u>.

Kammer, J., King, M., Donahay, A., & Koeberl, H. (2021). Strategies for successful school librarian and teacher collaboration. *School Library Research*, 24. <u>https://www.ala.org/aasl/slr/vol24</u>.

Kaput, J. J. (2008). What is algebra? What is algebraic reasoning? In J. J. Kaput, D. W. Carraher, & M. L. Blanton (Eds.), Algebra in the early grades (pp. 5-17). Lawrence Erlbaum Associates.

Kober, N., Carlone, H., Davis, E.A., Dominguez, X., Manz, E., & Zembal-Saul, C. (2023). *Rise and Thrive with Science: Teaching PK-5 Science and Engineering*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/26853</u>.

Kucian, K., Grond, U., Rotzer, S., Henzi, B., Schönmann, C., Plangger, F., ... & von ASTER, M. (2011). Mental number line training in children with developmental dyscalculia. NeuroImage, 57(3), 782-795.

Lance, K.C. & Kachel, D.E. (2018). Why school librarians matter: What years of research tell us. *Phi Delta Kappan*, 99 (7), 15-20.

Maryland State Department of Education. (2022). College and Career Readiness (CCR) Standard. Retrieved from <u>https://blueprint.marylandpublicschools.org/wp-</u> content/uploads/sites/20/2022/12/CCRReport_December2022_A.pdf

Maryland State Department of Education. (n.d.). *Maryland standards for school library media programs*. Retrieved from <u>https://www.marylandpublicschools.org/programs/Documents/ITSLM/slm/MD_SLM_Standards.pdf</u>

Massachusetts Reading Association. (n.d.). *The critical role of vocabulary development for English language learners*. Retrieved from <u>https://www.massreading.org/wp-</u> content/uploads/2015/08/vocabulary-paper-newletterhead.pdf

Mayo Clinic Health System. (2023, April 17). 6 *tips to reduce children's screen time*. Mayo Clinic. Retrieved from: <u>https://www.mayoclinichealthsystem.org</u>

Moore, J. (2023, October 2). The art and science of collection development. *Knowledge Quest*. Retrieved from: <u>https://knowledgequest.aasl.org/the-art-and-science-of-collection-development/</u>

Moschkovich, J. N. (2002). A situated and sociocultural perspective on bilingual mathematics learners. Mathematical Thinking and Learning, 4(2-3), 189-212. McNamara, D. S., & Magliano, J. (2021). *The science of reading comprehension instruction*. ResearchGate. Retrieved from

https://www.researchgate.net/publication/351825888_The_Science_of_Reading_Comprehension_Instruction

MENTOR. (2015). Elements of Effective Practice for Mentoring. Retrieved from https://www.mentoring.org/resource/elements-of-effective-practice-for-mentoring/

Merkley, R., & Ansari, D. (2016). Why numerical symbols count in the development of mathematical skills: Evidence from brain and behavior. Current Opinion in Behavioral Sciences, 10, 14-20. <u>https://doi.org/10.1016/j.cobeha.2016.04.006</u>

MTSS Guide and more resources: [https://mtss4success.org/](https://mtss4success.org/

Myers, A. (2021, May 6). *To catch students up, don't remediate. Accelerate*. Johns Hopkins University. <u>https://hub.jhu.edu/2021/05/06/remediation-vs-acceleration-education/</u>

National Academies of Sciences, Engineering, and Medicine. (2012). *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/13165</u>.

National Academies of Sciences, Engineering, and Medicine. (2024). *A New Vision for High-Quality Preschool Curriculum*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/27429</u>.

National Academies of Sciences, Engineering, and Medicine. (2021). *Call to Action for Science Education: Building Opportunity for the Future*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/26152</u>.

National Academies of Sciences, Engineering, and Medicine. (2022). *Science and Engineering in Preschool Through Elementary Grades: The Brilliance of Children and the Strengths of Educators.* Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/26215</u>.

National Association of Elementary School Principals. (n.d.). *The principal's guide to building culturally responsive schools*. NAESP. <u>http://naesp.org</u>

National Council of Teachers of Mathematics. (2014). Principles to actions: Ensuring mathematical success for all. National Council of Teachers of Mathematics.

National Council of Teachers of Mathematics. (2024). High School Mathematics Reimagined, Revitalized, and Relevant. Reston, VA: National Council of Teachers of Mathematics.

NGSS Lead States. 2013. *Next Generation Science Standards: For States, By States*. Washington, DC: The National Academies Press. <u>https://www.nextgenscience.org/</u>

NGSS Lead States. 2013. <u>Appendix C: College and Career Readiness</u>. Washington, DC: The National Academies Press.

NGSS Lead States. 2013. <u>Appendix D: All Standards, All Students: Making the Next Generation Science</u> <u>Standards Accessible to All Students</u>. Washington, DC: The National Academies Press.

NGSS Lead States. 2013. <u>Appendix D: Case Studies.</u> Washington, DC: The National Academies Press.

Office of Superintendent of Public Instruction. (2023). Ninth Grade On Track Toolkit. Retrieved from <u>https://ospi.kl2.wa.us/sites/default/files/2023-08/ninthgradeontrack.pdf</u>

National Center for Education Evaluation and Regional Assistance. "What the Research Tells Us About Reading Comprehension and Comprehension Instruction." *Reading Rockets*, <u>www.readingrockets.org/topics/comprehension/articles/what-research-tells-us-about-readingcomprehension-and-comprehension</u>.

OSPI Ninth Grade On-Track Toolkit: https://ospi.k12.wa.us/sites/default/files/2023-08/ninthgradeontrack.pdf

Radford, L. (2014). The progressive development of early embodied algebraic thinking. Mathematics Education Research Journal, 26, 257-277.

REL Southeast:

[https://ies.ed.gov/ncee/edlabs/regions/southeast/pdf/REL_2016218.pdf](https://ies.ed.gov/ncee/edlabs/regions/southeast/pdf/REL_2016218.pdf]

RISE Network. (n.d.). Freshman On-Track Toolkit. Retrieved from <u>https://www.risenetwork.org/freshman-on-track-toolkit</u>

Robinson, C., Kraft, M., Loeb, S., & Schueler, B. (2021, February). *Design principles for accelerating student learning with high-impact tutoring* (Brief #16). Annenberg Institute at Brown University. Retrieved from https://annenberg.brown.edu/sites/default/files/EdResearch_for_Recovery_Design_Principles_1.pdf

Ross, E. M. (2023, March 21). The case for strong family and community engagement in schools: A roundup of the latest K–12 research reveals persuasive evidence. Harvard Graduate School of Education. Retrieved from https://www.gse.harvard.edu

Ruder, D. B. (2019, June 19). Screen time and the brain: Digital devices can interfere with everything from sleep to creativity. Harvard Medical School. Retrieved from <u>https://hms.harvard.edu/news/screen-time-brain</u>

Smith, M. S., & Stein, M. K. (2011). 5 practices for orchestrating productive mathematics discussions. National Council of Teachers of Mathematics.

Southern Regional Education Board. (2020). Elementary Science: Equipping Students Through Inquiry and Integration. Atlanta, GA. SREB. Retrieved from <u>https://www.sreb.org/publication/elementary-science</u>

Southwest Educational Development Laboratory. (n.d.). *Teaching vocabulary: Two dozen tips & techniques*. SEDL Letter, 14(3). Retrieved from <u>https://sedl.org/pubs/sedl-letter/v14n03/3.html</u>

Tucker, C. R., Wycoff, T., & Green, J. T. (2017). *Blended learning in action: A practical guide toward sustainable change*. Corwin.

U.S. Department of Education. (2016). Issue Brief: Early Warning Systems. Office of Planning, Evaluation and Policy Development. Retrieved from <u>https://www2.ed.gov/rschstat/eval/high-school/early-warning-systems-brief.pdf</u>

U.S. Department of Education. (2017). Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update. Office of Educational Technology. <u>https://tech.ed.gov/files/2017/01/NETP17.pdf</u>

University of Texas Medical Branch (UTMB). (2023, August 21). *Screen time guidelines for kids*. Retrieved from <u>https://www.utmb.edu/news/article/health-blog/2023/08/21/screen-time-guidelines-for-kids</u>

Van de Walle, J. A., Karp, K. S., & Bay-Williams, J. M. (2010). Elementary and middle school mathematics: Teaching developmentally (7th ed.). Pearson Education.

Washington Association of School Administrators. (2017). *Best practices for supporting grade 9 success* (Quarterly Report, April 2017). Retrieved from https://www.wasa-oly.org/WASA/images/WASA/1.0%20Who%20We%20Are/1.4.1.6%20SIRS/Download_Files/LI%202017/April%20-%20Quarterly%20Report%20-%20Best%20Practices%20for%20Supporting%20Grade%209%20Success.pdf