



Advancing College and Career Readiness (CCR)

Proactive Strategies for Prekindergarten through Grade 5 Students

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.



Proactive Strategies for Students in Prekindergarten

Prekindergarten CCR Strategies for Mathematics Readiness

To support early mathematical development, the Prekindergarten Math Standards provide clear learning objectives and key concepts. Access the full set of standards through the link below.

Prekindergarten Math Standards

[Prekindergarten Mathematics Content Standards](#)

[Standards for Mathematical Practice](#)

INSTRUCTIONAL PLANNING

For Prekindergarten Math Readiness

Strategy	Description
Counting, Number Recognition, and Numerical Symbol Knowledge	Use playful activities like counting objects, singing number songs, identifying numbers in everyday environments, and playing games to match number symbols to quantities (Merkley & Ansari, 2016).
Basic Shape Recognition	Introduce common shapes (circle, square, triangle) through hands-on activities like sorting, puzzles, and drawing.

FOCUSED LEARNING INTERVENTIONS

For Prekindergarten Math Readiness

Intervention	Objective
Manipulatives for Counting	Help students develop number sense using blocks, counters, and toys to represent numbers and quantities.
Shape Sorting and Puzzles	Use sorting games and puzzles to teach shape recognition and spatial awareness.

ASSESSMENT AND MONITORING

For Prekindergarten Math Readiness

Assessment	Purpose
Observation of Counting Activities	Observe students during hands-on counting tasks to evaluate their understanding of numbers and quantities.
Shape Identification Games	Use matching games or simple quizzes to assess students' ability to recognize and name basic shapes.

ADVANCED ACADEMICS

For Prekindergarten Math Readiness

Advanced Strategy	Description
Early Pattern Recognition	Introduce simple patterns (AB, ABC) using colors, shapes, or objects, and encourage students to predict and extend patterns.
Skip Counting	Teach students to count by 2s, 5s, or 10s to build a foundation for understanding multiplication later on.
Spatial Reasoning Puzzles	Provide more complex puzzles that involve fitting shapes together or solving spatial challenges.

LANGUAGE DEVELOPMENT STRATEGIES

For MLL Prekindergarten Math Readiness

Strategy	Description
Visual Counting Charts	Use visual aids like number charts and flashcards to help MLLs learn number names in English while using images to represent quantities.
Bilingual Counting Songs	Incorporate number songs in both English and the student's home language to reinforce number recognition in a familiar and new context.

Strategy	Description
<p>Mathematical Vocabulary Building through Storybooks</p>	<p>Pre-K students can engage with storybooks that incorporate mathematical language and concepts, such as counting, shapes, patterns, and comparisons. Educators can pause during the reading to ask questions that help students develop both their mathematical understanding and their vocabulary. For example, using phrases like "How many?", "What comes next?", and "Is this bigger or smaller?" helps students build mathematical language while strengthening their overall language development.</p>
<p>Hands-On Math Activities with Dual Language Support</p>	<p>Incorporating hands-on math activities such as counting objects, sorting shapes, or measuring with various tools can foster language development.</p> <p>For multilingual learners, these activities can include visual supports, verbal prompts in students' home languages, and interactive math-related vocabulary cards. Teachers can model the use of math vocabulary in both the students' home language and English, allowing them to understand and apply key concepts in both languages, facilitating their transition into English-speaking environments.</p>

INDIVIDUALIZED LEARNING SUPPORTS

For Prekindergarten Math Readiness

Strategy	Description
<p>Tactile Math Tools</p>	<p>Use sensory-friendly materials like textured number cards or tactile counting objects to engage students with diverse needs.</p>
<p>Individualized Learning Stations</p>	<p>Set up different learning stations for one-on-one support, allowing for focused attention on counting, shapes, or number recognition at the student's pace.</p>

BUILDING A CAREER IDENTITY*For Prekindergarten Math Readiness*

Strategy	Description
Introducing Basic Problem Solving	Engage students in basic problem-solving tasks using math-related play, fostering early decision-making and logical thinking skills.
Developing a Sense of Achievement	Use activities like completing counting tasks or puzzles to build confidence and early success in task completion, helping students feel proud of their abilities.
Group Collaboration in Play	Encourage students to work together on counting or shape-related tasks, introducing the concept of teamwork and collaborative problem-solving early on
Connect Math to Future Careers or Leadership Roles at Home	<p>Engineers, doctors, architects, scientists, chefs, and cashiers all use math to solve problems, measure, design, and manage time or money, connecting early counting and number skills to real-world applications.</p> <p>At home, children can take on leadership roles by helping measure ingredients, count items, or manage time, reinforcing how math skills are important both now and in future careers. Help students identify what they like enjoying most.</p>
Curiosity, SEL, and Exploration	Foundation of Curiosity: Engage children in activities that promote curiosity, like storytelling, hands-on play, and sensory exploration. Use these experiences to encourage communication, collaboration, and problem-solving, all critical skills for later career success.
Career Awareness Through Play	<p>Career Concepts Through Role-Play: Introduce community helpers (e.g., firefighters, doctors, teachers) through interactive play. Role-playing activities allow children to explore different roles in a way that sparks curiosity about work and the community.</p> <p>Simple Problem Solving: Engage students in math-related play (e.g., counting games, sorting shapes) to build early decision-making skills and connect their learning to real-world scenarios.</p>
Building Financial Literacy Early	Early Number Sense: Introduce basic counting and number recognition through play, using manipulatives like blocks or toys to represent quantities. This lays the foundation for understanding the value of objects, an early step toward financial literacy.

Prekindergarten CCR Strategies for Literacy Readiness

To support early literacy development, the Prekindergarten Literacy Standards provide clear learning objectives and key concepts. Access the full set of standards through the links below.

Prekindergarten Literacy Standards

[Prekindergarten - Kindergarten Literacy Content Standards](#)

[Prekindergarten Literacy Frameworks](#)

INSTRUCTIONAL PLANNING

For Prekindergarten Literacy Readiness

Strategy	Description
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, vocabulary map, response journals).
Basic Features of Print/Print Concepts	Reading aloud to and with students every day will support learning about print concepts. Teachers should include the use of “Big Books” in the earliest grades. As students listen to stories and information text, they begin to recognize that print conveys meaning and/or a message. Teachers should be pointing out/teaching the language related to basic features of print such as turning a book page by page, reading text from left to right, and understanding the difference between letters, words, and sentences. The use of vocabulary related to basic features of print such as “front and back cover”, “author”, and “illustrator” will support the understanding of basic features of print.
Phonological Awareness	Playing word games that focus on what students are hearing, and how to recognize and manipulate sounds by orally reproducing what is spoken. Examples include recognizing and producing rhyming words, counting and clapping syllables. Students begin isolating (segmenting) and putting back together (blending) the initial sounds (onset) and the rest of the word (rime).

Strategy	Description
Phonics and Word Recognition	<p>“Call and respond” activities using manipulatives (magnetic boards and letters), anchor charts, and tactile modalities to learn the sounds and spelling patterns of English language. These skills should be taught in an explicit and systematic way that allows students to recognize, decode (read), and encode (write) the sounds that letters make in print. Phonics and word recognition skills must be taught in a systematic and explicit manner for all students to progress in reading.</p>
Knowledge Building, Vocabulary, and Comprehension	<p>Spending a significant amount of instructional time explicitly building students’ knowledge-base and vocabulary is crucial to support reading comprehension and fluency- the ultimate goal of reading. This is accomplished through the regular reading-aloud of rich literature and information text appropriate to grade level, developmental stage, and backgrounds and cultures of students being served. Providing pertinent background knowledge to support student understanding of the text is the goal. Connected vocabulary and background knowledge instruction can and should occur, before, during, and after reading, as aligned to the subject matter of the text.</p>
Fluency	<p>Fluency consists of three things: rate, accuracy, and expression. Expression, or prosody, includes timing, phrasing, emphasis, and intonation. Fluency is built through word recognition, one word at a time. Teaching systematic phonological awareness and phonics, and applying these skills to text, allows students to build automaticity in word reading.</p>
Writing	<p>Reading and writing are deeply interconnected processes that reinforce and complement each other. Students should be learning to read and write together to receive the benefits of the reciprocal skills. Students should be using multiple materials as they are learning to write. This includes markers, highlighters, paint, dry-erase markers and pencils of different shapes and sizes. Students develop large motor skills before small motor skills. Students will begin to write by scribbling. Encourage this as it is a pre-writing skill important to learning how to write. Encourage students to draw and label pictures to record their thinking pertaining to a text read aloud, or to share ideas.</p>

FOCUSED LEARNING INTERVENTIONS

For Prekindergarten Literacy Readiness

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

ASSESSMENT AND MONITORING

For Prekindergarten Literacy Readiness

Assessment	Purpose
Universal Screeners	Universal screeners are valid and reliable data collection tools and processes used to assess students' current level of performance in relation to grade- level benchmarks, identifying students who need intervention and those who do not. Because screening takes place multiple times per year with all students, screeners are typically designed to be easy, quick, and repeatable. In most cases, Prekindergarten students are not assessed using a screening tool until the end of their pre-K year/beginning of kindergarten year. All districts are required by law to assess students in the early grades multiple times per year with a universal screener.

Assessment	Purpose
Diagnostic Assessments	<p>Diagnostic Assessments are used to identify students' strengths and identify gaps in learning. Diagnostic assessments assess specific skills or components of reading such as phonological awareness, phonics skills, and fluency. The results of diagnostic assessments inform instruction and intervention and help teachers plan their lessons by identifying areas where students may need additional support or remediation. These assessments are not graded but help inform instruction. Diagnostic assessments can be formal standardized tests or informal measures such as criterion-referenced tests to measure and inform instructional next steps. Not all children need this kind of in-depth reading assessment, which is most important for struggling and at-risk readers.</p>
Formative Assessment	<p>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.</p>
Curriculum-Based Assessments	<p>Use evidence from curriculum-based summative and formative assessments to set meaningful goals for growth and achievement.</p>

LANGUAGE DEVELOPMENT SUPPORTS

For MLL Prekindergarten Literacy Readiness

Strategy	Description
<p>Interactive Read-Alouds with Purposeful Conversation</p>	<p>Engaging Pre-K students in interactive read-alouds that emphasize language development and comprehension is critical for early literacy readiness. This strategy also builds listening, speaking, and comprehension skills.</p> <p>Teachers can read books aloud while asking open-ended questions and prompting students to make predictions or describe the story in their own words.</p> <p>Incorporating multilingual resources or providing vocabulary in both English and the child's home language can help bridge language gaps and ensure that all students are accessing the material.</p>
<p>Language-Rich Play Centers</p>	<p>Create play-based learning environments, such as dramatic play or sensory tables, that are rich in language and literacy materials. For example, setting up a "grocery store" play center with items labeled with words in both English and the child's home language, or a "story corner" with picture books and props, encourages vocabulary development and emergent literacy skills. This approach allows children to practice language through social interaction and role-play while reinforcing key concepts like letters, sounds, and storytelling.</p>

Prekindergarten CCR Strategies for Social Studies

In Pre-Kindergarten, social studies instruction serves as a vital foundation for young learners as they begin to explore the world around them. Rooted in [Maryland's Social Studies Standards](#) and guided by the [College, Career, and Civic Life \(C3\) Framework](#), effective instruction at this level focuses on fostering early awareness of community roles, basic civic responsibility, and an understanding of the people and places that shape students' everyday experiences. By introducing *fundamental concepts such as community helpers, daily routines, and the importance of working together*, Pre-K classrooms provide the first steps toward developing a strong sense of identity and understanding within a broader societal context.

The strategies for Pre-K social studies instruction differ significantly from those in kindergarten, as they emphasize exploratory, play-based learning and sensory engagement to introduce students to essential social studies concepts. While kindergarteners may engage in more structured activities such as group discussions and problem-solving tasks, Pre-K learners benefit from hands-on activities like role-playing, storytelling, and interactive games that allow them to connect with their environment in meaningful ways. Pre-K social studies instruction centers on building curiosity, self-expression, and basic social skills, all of which lay the groundwork for future academic success and career readiness as students progress into more formalized learning experiences in kindergarten and beyond.

INSTRUCTIONAL PLANNING

For Prekindergarten Social Studies Readiness

Strategy	Description
Community Helpers Role-Play	<p>Objective: To introduce young learners to the concept of jobs and careers in their community, helping them understand the roles people play in helping others and how these roles connect to their daily lives.</p> <p>Activity Description: Students participate in role-playing activities where they take on the roles of community helpers such as firefighters, police officers, teachers, or doctors. They engage in simple tasks related to these roles (e.g., putting out pretend fires, teaching peers, or using toy medical kits).</p> <p>Skills Developed: Social interaction, communication, imagination, and an understanding of basic civic roles.</p> <p>Standards Aligned: Standard 5.0 Civics: Recognize that people, both individually and collectively, make decisions and take actions to address problems.</p>

Strategy	Description
<p>"All About Me" Poster and Presentation</p>	<p>Objective: To encourage self-awareness and help children start thinking about their identities, strengths, and potential interests in the future workforce.</p> <p>Activity Description: Students create a poster showcasing information about themselves, such as their favorite activities, family members, and what they want to be when they grow up. They present their posters to the class, sharing their future aspirations and interests.</p> <p>Skills Developed: Self-awareness, communication, creativity, and early public speaking.</p> <p>Standards Aligned: Standard 6.0 Skills and Processes: Identify and describe family customs and routines, and how they may relate to work and community roles.</p>
<p>Classroom Jobs and Responsibilities</p>	<p>Objective: To develop an understanding of responsibility, collaboration, and the importance of different roles in a community. This also introduces the concept of work as a valuable contribution to a group.</p> <p>Activity Description: Assign classroom jobs such as line leader, table cleaner, or materials helper. Each day, students take responsibility for fulfilling these jobs, learning the importance of contributing to the class community.</p> <p>Skills Developed: Responsibility, collaboration, problem-solving, and early organizational skills.</p> <p>Standards Aligned: Standard 5.0 Civics: Understand that all people have responsibilities and roles in their communities.</p>

FOCUSED LEARNING INTERVENTIONS

For Prekindergarten Social Studies Readiness

Intervention	Objective
Guided Group Discussions on Community Helpers	To deepen understanding of community roles through structured conversation and guided inquiry, allowing students to connect with the idea of civic responsibility and how individuals contribute to society
Visual Story Mapping	To enhance comprehension of the roles people play in the community through visual representation, while developing sequencing and storytelling skills.
Interactive Community Helper Stations	To provide hands-on exploration of various community roles, allowing students to develop an understanding of different jobs through play and interaction.

ASSESSMENT AND MONITORING

For Prekindergarten Social Studies Readiness

Assessment	Purpose
Observational Checklists	To monitor students' participation, comprehension, and social skills development in real-time. This allows teachers to assess how well students grasp social studies concepts and identify areas where additional support may be needed.
Portfolio Assessment	To document and evaluate student growth over the course of the year, focusing on social studies knowledge, creativity, and problem-solving abilities. This method provides a holistic view of each student's development.
Picture-Based Exit Tickets	To quickly assess student understanding of key social studies concepts and monitor comprehension in a visual and accessible format suitable for Pre-K learners.

ADVANCED ACADEMICS*For Prekindergarten Social Studies Readiness*

Advanced Strategy	Description
Advanced Inquiry Projects on Community Helpers	Students choose a specific community helper they are interested in and, with teacher support, conduct a simple inquiry project. This may include researching more detailed information about the chosen helper, such as their tools, responsibilities, and daily tasks. Students can then present their findings to the class using drawings, models, or simple reports
Collaborative Community Design Project	Using blocks, craft materials, or drawings, students work in groups to design a model of an ideal community. They discuss and decide which community buildings (e.g., fire stations, schools, hospitals) should be included, why these places are important, and what roles the people working there would play.
Critical Thinking Discussions: "What If We Didn't Have...?"	Teachers lead advanced group discussions asking questions such as, "What would happen if we didn't have firefighters?" or "What if no one worked in hospitals?" Students are encouraged to think critically about the impact of missing roles and consider how communities rely on each job for proper functioning.

LANGUAGE DEVELOPMENT SUPPORTS*For MLL Prekindergarten Social Studies Readiness*

Strategy	Description
Picture Vocabulary Cards with Multilingual Labels	Use picture vocabulary cards featuring community helpers, tools, and places (e.g., firefighter, stethoscope, library) with multilingual labels in both English and the student's home language. Teachers introduce the cards during group time, helping students connect words to images and community concepts.
Visual Timelines with Language Labels	Create visual timelines depicting daily routines of community helpers (e.g., "A Day in the Life of a Teacher" or "A Firefighter's Shift"). Add labels in both English and the students' home languages, and have students describe the sequence of events in either language.

Strategy	Description
Dual-Language Story Time with Social Studies Themes	Read aloud books that are available in both English and the students' home languages. Choose stories with social studies themes (e.g., "Miss Bindergarten Gets Ready for Kindergarten" or "A Day in the Life of a Firefighter"). Follow the reading with a group discussion where students are encouraged to share words from their home language related to the story.
Culturally Responsive Storytelling and Discussions	Use storytelling to introduce students to diverse cultures, communities, and historical events in an engaging, age-appropriate manner. Teachers can select books and resources that reflect the diverse backgrounds of their students, promoting both social studies content and language development. After reading, facilitate discussions that encourage students to share their ideas, ask questions, and make connections to their own experiences. Providing vocabulary supports, such as visual aids or multilingual glossaries, can help ensure that all students have access to key concepts in social studies while developing their speaking and listening skills.
Community Exploration and Mapping	Help students build an understanding of their own community and the larger world through hands-on exploration and mapping activities. Encourage students to use language to describe their observations, such as the people, places, and landmarks they see. For example, create a "community map" in the classroom where students can contribute by labeling places in their neighborhood in both English and their home language. This activity supports vocabulary development around social studies concepts (e.g., neighborhood, transportation, landmarks) while also fostering a sense of belonging and community. It can also be an opportunity for multilingual learners to share words or phrases from their own culture, building cross-cultural understanding.

INDIVIDUALIZED LEARNING SUPPORTS*For Prekindergarten Social Studies Readiness*

Strategy	Description
Visual Schedules and Picture Cues	Use visual schedules and picture cues to help students understand the daily routine and the sequence of social studies activities. Each activity (e.g., reading time, role-playing, or group discussion) is represented with a clear picture and simple text to provide structure and predictability
Visual and Tactile Community Maps	Create tactile community maps with raised textures and objects representing community places (e.g., a fire station, hospital, or park). Students can use their hands to explore the map and learn about the location and function of different community spaces.
Embedded Practice through Learning Stations	Include practice on student's targeted skills in content-based learning stations. Stations can reinforce social studies content (like community helpers) and skills targeted on individual students IEPs (e.g., matching). Customize prompts and supports based on individual needs.

BUILDING A CAREER IDENTITY*For Prekindergarten Social Studies Readiness*

Strategy	Description
Community Helpers Dress-Up Day	Organize a "Community Helpers Dress-Up Day," where students come to school dressed as their favorite community helpers (e.g., firefighter, doctor, teacher, construction worker). Students take turns explaining their chosen role and performing simple tasks that match the profession (e.g., pretending to teach, putting out fires, or helping others)
Career-Themed Storytime	Read aloud picture books that feature different careers (e.g., "Career Day" by Anne Rockwell or "Clothesline Clues to Jobs People Do" by Kathryn Heling). After the reading, students discuss the jobs introduced in the story and share which job they might want to do when they grow up.

Strategy	Description
Career Exploration Centers	Set up career exploration centers in the classroom, with each center representing a different career (e.g., a doctor's office, a fire station, a classroom). Students rotate through the centers, engaging in hands-on activities related to each job, such as using stethoscopes in the "doctor" center or reading books to stuffed animals in the "teacher" center.
"When I Grow Up" Art Project	Have students create an art project where they draw themselves in the job they would like to have when they grow up. Provide guidance and prompts by asking questions like, "What kind of work would you like to do?" and "What tools would you need for this job?"

Prekindergarten CCR Strategies for Science

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

- Provide in public schools an instructional program in science each year for all students in grades prekindergarten—8; and
- Offer in public schools a science program in grades 9—12 which enables students to meet graduation requirements and to select science electives.

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

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

INSTRUCTIONAL PLANNING

For Prekindergarten Science Readiness

Strategy	Description
Explore Objects	Let children feel and explore a variety of safe objects, such as leaves, rocks, shells, or fabric. Talking about what makes them similar or different helps children learn about their characteristics, patterns, and properties.
Hands-on Activities	Activities such as color mixing, shadow play, and sand or water tables can be engaging and interactive and help children learn about light, sound, and shadows.
Promote Spatial Thinking	Activities that include comparing the position, size, and shapes of safe objects along with rolling or moving the objects can help children learn about concepts of space, movement, and physical properties.
Observe the World	Encourage children to make observations about the objects around them and to ask questions about those objects. This encourages children to further investigate their world along with identifying simple problems and possibly designing solutions for the problems.

Strategy	Description
Argue from Evidence	Encourage children to argue from evidence or justify their ideas so to help them learn how to constructively resolve conflicts.
Collaborative Learning	Group children in a variety of ways during investigations and discussions so they can practice teamwork and collaborative problem-solving.

FOCUSED LEARNING INTERVENTIONS

For Prekindergarten Science Readiness

Intervention	Objective
Use Student Questions	Elicit, record, and leverage children's questions throughout the learning process to help align their interests and experience to learning. Have children perform investigations or problem-solve around questions or problems they identify based on their interests. This will help them engage in the learning.
Varied Modes of Expression	Communicate directions and information in a variety of formats (e.g., verbal, visual, gestured) and allow students to express their thinking through a variety of modes (e.g., verbal, drawn, gestured, written, digital).
Visual Aids and Manipulatives	Pictures, diagrams, charts, videos, models, simple maps, interactive tools, and safe materials as manipulatives can help students interact, explore, and investigate concepts.
Integrate and Promote Learning Across Developmental Domains	Hands-on science learning can boost language and math development when children describe their experiences, observations, findings and data. Providing students with concrete experiences gives children the background knowledge that promotes understanding and application of concepts, questions, and critical thinking, and vocabulary.
Interactive Read Alouds	After hands-on exploration, read aloud a variety of age appropriate informational and/or narrative text related to concepts investigated. Encourages children to be actively engaged in responding to the book as it is read. These interactions around books can be used to build knowledge about the natural world, student interests, science concepts and to teach science vocabulary.

ASSESSMENT AND MONITORING*For Prekindergarten Science Readiness*

Assessment	Purpose
Discussion and Questioning	The teacher can use discussion in a variety of group sizes to identify what children have learned and their understanding of the science concepts. Open-ended questions can further identify the degree of the children's understanding and possible misconceptions about the science concepts. Using analysis of the student responses during discussions and in response to questions the teacher can propose specific interventions or strategies that could address the student's needs, such as small group tutoring, differentiated instruction, or access to specialized resources.
Observational Assessments	Teachers observe children during hands-on science activities and discussions, noting their ability to engage, ask questions, and apply concepts. Focus on specific observable behaviors and concrete examples of the student's struggles or successes during science activities related to the science standards. These anecdotal notes help identify individual learning styles, strengths, and needs which the teacher can use to propose specific interventions or strategies to support the student.
Portfolios	Teachers collect samples of children's work, such as drawings, written work, audio recordings, and digital creations to document and evaluate student growth over the year, focusing on science content, science practices, and simple problem-solving abilities. This method provides a holistic view of each student's development aligned with the science standards. The samples should reflect student strengths, areas for improvement, and identified learning goals based on the science standards. These samples can be shared with families to encourage the continuation of scientific thinking at home and support areas that need improvement.
Checklists or 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 motion of objects, how living things grow, and changes of objects in the sky.

Assessment	Purpose
Science Notebooks/Journals	<p>Science notebooks/journals offer students a dedicated space to document their thoughts and the evolution of their understanding throughout the learning process. As students draw, write, and/or dictate their ideas, teachers can monitor comprehension related to the science standards and foster meaningful discussions. These notebooks not only capture student thinking but also serve as a tool for self-expression and reflection. 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.</p>

LANGUAGE DEVELOPMENT SUPPORTS

For MLL Prekindergarten Science Readiness

Strategy	Description
Interactive Storytelling Apps with Language Support	<p>Introduce Pre-K students to interactive digital storytelling apps that are designed to foster early literacy skills. Choose apps that read stories aloud while highlighting text, allowing children to hear and see words simultaneously.</p> <p>For multilingual learners, use apps that support bilingual text or provide translations, enabling children to make connections between their home language and English. Encourage students to interact with the story by answering questions, predicting outcomes, or retelling the story, which strengthens both language development and digital literacy. Teachers can scaffold learning by modeling how to navigate the app, reinforcing vocabulary, and providing language supports like visual cues and vocabulary cards.</p>
Digital Learning Platforms for Collaborative Learning	<p>Use digital platforms, such as age-appropriate interactive whiteboards or learning apps, to encourage group projects where students can collaborate on tasks such as creating digital drawings, playing language games, or working together to solve simple puzzles. Multilingual learners can benefit from features that allow students to switch between languages or use speech-to-text tools to express themselves verbally. This strategy promotes literacy skills by incorporating both spoken and written language within a digital space. It also builds digital literacy by familiarizing students with using technology for communication and collaboration.</p>

Strategy	Description
Interactive Science Investigations with Vocabulary Support	Unlike Language Arts instruction, academic vocabulary should not be frontloaded for science. Engage young learners in hands-on science investigations that encourage observation, prediction, and exploration. During and after children participate, teachers can model and introduce key science vocabulary such as "observe," "predict," "investigate," and "record." After conducting the investigation, facilitate discussions that allow students to express their thoughts using new vocabulary. Use visual aids, diagrams, and gestures to reinforce understanding. For multilingual learners, providing bilingual word cards or using simple language strategies (such as repeating key terms or pairing with visuals) can help bridge language gaps while deepening students' understanding of scientific concepts.
Science Journals and Vocabulary Mapping	Encourage Pre-K students to document their observations and discoveries in simple science journals. Provide prompts for them to draw pictures and label their findings using single letters or words. Teachers can model how to write down observations in both English and students' home languages, and/or record what students dictate allowing students to use their native language to express their thoughts before transitioning to English. Incorporate activities like "science word walls" with pictures and vocabulary for common science terms, helping all students, especially multilingual learners, expand their language in the context of scientific exploration.

BUILDING A CAREER IDENTITY

For Prekindergarten Science Readiness

Strategy	Description
Introducing Basic Problem Solving	Engage students in basic problem-solving tasks using science-related play, fostering early decision-making and logical thinking skills.
Developing a Sense of Achievement	Use activities like completing investigations or puzzles to build confidence and early success in task completion, helping students feel proud of their abilities.
Group Collaboration in Play	Encourage students to work together on science-related tasks, introducing the concept of teamwork and collaborative problem-solving early on.

Strategy	Description
<p>Connect Science to Future Careers or Leadership Roles at Home</p>	<p>Engineers, doctors, architects, teachers, chefs, and event managers all use science to ask questions, make observations, solve problems, and design solutions connecting early science and engineering practices to real-world applications.</p> <p>At home, children can ask questions, describe patterns from observations, or define simple problems or solutions, reinforcing how science and engineering practices are important both now and in future careers. Help students identify what they like enjoying most.</p>

Prekindergarten 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 [Universal Design for Learning \(UDL\)](#) framework involves multiple means of engagement, representation, and expression. When used appropriately, this framework helps accommodate diverse learning preferences and needs, ensuring all students have equal opportunities to access and engage with library and digital resources.

To learn more about planning for the effective integration of digital tools, please review these additional resources:

- [Integrating Technology into a Lesson: Considerations for Teachers](#)
- Maryland Digital Learning Standards for Students
- Maryland Digital Learning Standards for Educators
- [Lesson and Program Planning: School Library Media Considerations](#)
- [Maryland School Library Media Standards for Learners, Librarians, and Libraries](#)

SCHOOL LIBRARY MEDIA

School Library Media (SLM) programs play a critical role in enhancing PreK literacy by providing rich and diverse learning opportunities. Through a carefully curated collection of age-appropriate texts, school libraries ensure that young learners are exposed to materials that reflect their experiences and expand their understanding of the world. These programs also introduce beginning readers to literacy fundamentals and engagement. School Library Media Specialists (SLMS) work collaboratively with teachers, parents, and public libraries to enhance literacy development within the classroom, provide valuable resources for families, and foster strong community partnerships through family engagement initiatives.

Collection development for the PreK level prioritizes culturally relevant and age-appropriate fiction and informational texts. The selected materials encompass various formats, including books for read-alouds, paired reading, and independent exploration. PreK texts are characterized by repetition, high-quality illustrations and photographs, and minimal text to support early literacy development. SLMS extend beyond the library to assist classroom teachers in building literature centers and stations within the classroom. (Moore, 2023)

DIGITAL LEARNING

Digital learning in PreK focuses primarily on early exposure to technology in an age-appropriate way. Interactive, play-based digital tools serve as an introduction to technology while fostering early literacy and numeracy skills. Digital activities should involve parental engagement, ensuring children receive guidance to make their learning meaningful. According to the American Academy of Pediatrics, digital content for this age group should be limited and curated to promote interaction rather than passive consumption, ensuring that children engage with educational materials rather than pure entertainment (American Academy of Child and Adolescent Psychiatry, 2024; Mayo Clinic Health System, 2023).

SCREEN TIME RECOMMENDATION: PREK (AGES 0-4)

The American Academy of Child and Adolescent Psychiatry recommends avoiding screen time for children under two years old, except for video chatting with an adult (i.e., video call from a parent or family member who is out of town). For ages 2 to 4, screen time should be limited to no more than one hour per day of high-quality educational content. It’s also important to ensure that this content is interactive and that parents engage with the child to enhance understanding (American Academy of Child and Adolescent Psychiatry, 2024; Mayo Clinic Health System, 2023).

SCHOOL LIBRARY MEDIA STRATEGIES

For Prekindergarten Readiness

Strategy	Description
Family Engagement	Family engagement in the SLM center can encompass a variety of activities, including book fairs, literacy events, and STEM initiatives. Additionally, parents can participate alongside their children during story time and book checkout, allowing them to observe and understand how students select books to take home (Harris, 2015).
Beginning Literacy Development	SLMS foster early literacy development by engaging beginning readers through read-aloud, rhyming activities, sequencing exercises, and hands-on learning experiences. With a deep understanding of literacy skill development and access to a wide range of resources, SLMS effectively collaborate with teachers to support and enhance these foundational skills (Lance & Kachel, 2018).
PreK Lesson Engagement	Integrating movement through games and large motor skill activities helps pre-kindergarten students thrive on a diverse range of experiences within a limited timeframe. The SLMS employ songs, dance, rhythmic activities, games, and hands-on experiences to create meaningful connections to literature.

Strategy	Description
Collaboration with Public Libraries	Public and school library partnerships benefit families of pre-kindergartners by providing access to a wealth of resources and programs tailored to early literacy development. They also ensure that families have access to materials and information on child development; helping parents support their children's educational journey. Additionally, such partnerships create a supportive community network encouraging social interaction and collaboration among families. (Association for Library Service to Children, 2020)

DIGITAL LEARNING STRATEGIES

For Prekindergarten Readiness

Strategy	Description
Parental Involvement Tools	Apps that engage parents to work with their children on digital activities can be essential, as young children benefit significantly from adult interaction and guidance. Empowering parents to effectively support their child's at-home learning is essential to fostering fair and equitable opportunities for all students (Ross, 2023).
Collaborative Tools	Use collaborative resources such as interactive whiteboards and tables. These tools should be led by educators who promote social interaction and collaboration skills so students can learn with and from their peers.
Play-Based Digital Learning	Digital tools that incorporate play-based learning are effective for PreK students. These tools should focus on foundational literacy and numeracy skills in a playful context, keeping the content age-appropriate and engaging. In addition, educators need to be mindful of recommended screen time for PreK students.

Advanced Academics for All Subjects in Prekindergarten

There are three major goals for early talent development which are listed below:

- Provide opportunities for all children to develop and demonstrate advanced learning behaviors, including children from groups underrepresented in advanced programs.
- Build a profile of student strengths over time, prekindergarten to second grade, which can be used to document the need for differentiated instruction and gifted and talented education.

Provide models of the essential learning strategies of analyzing attributes, questioning and creative problem solving across the early learning years.

Advanced Strategy: Early Talent Development

Two example modules with lessons/resources are included below:

- **Prekindergarten: Making Sense of Our World** – This module focuses on communicative behaviors including strategies related to identifying sensory attributes to sort, classify, and compare observational data
- **Prekindergarten: It Fits!** – This module focuses on perceptive behaviors including strategies related to identifying attributes to sort, classify, and make inferences in order to create analogies on collected observational data

Building College and Career Identities in Prekindergarten

OVERVIEW:

In the early years, building a foundation of curiosity, self-awareness, and early career exploration is critical to developing college and career readiness (CCR). The strategies in Pre-K through Grade 2 focus on fostering a love for learning, integrating Social Emotional Learning (SEL), and introducing basic concepts of community and careers in a developmentally appropriate way.

Goals:

- Foster curiosity and exploration through play-based learning.
- Integrate Social Emotional Learning (SEL) to promote self-awareness, self-management, and responsible decision-making.
- Begin introducing career concepts in the context of community roles and everyday experiences.
- Lay the groundwork for financial literacy through simple, hands-on experiences.
- Align academic skills with early career identity development, blending literacy, math, and social studies with real-world applications.

Focus: Curiosity, SEL, and Exploration

- Foundation of Curiosity: Engage children in activities that promote curiosity, like storytelling, hands-on play, and sensory exploration. Use these experiences to encourage communication, collaboration, and problem-solving, all critical skills for later career success.
- SEL Focus: Build self-awareness and relationship skills through activities that promote understanding of emotions, empathy, and teamwork

Focus: Career Awareness Through Play

- Foundation of Curiosity: Engage children in activities that promote curiosity, like storytelling, hands-on play, and sensory exploration. Use these experiences to encourage communication, collaboration, and problem-solving, all critical skills for later career success.
- SEL Focus: Build self-awareness and relationship skills through activities that promote understanding of emotions, empathy, and teamwork

Focus: Building Financial Literacy Early

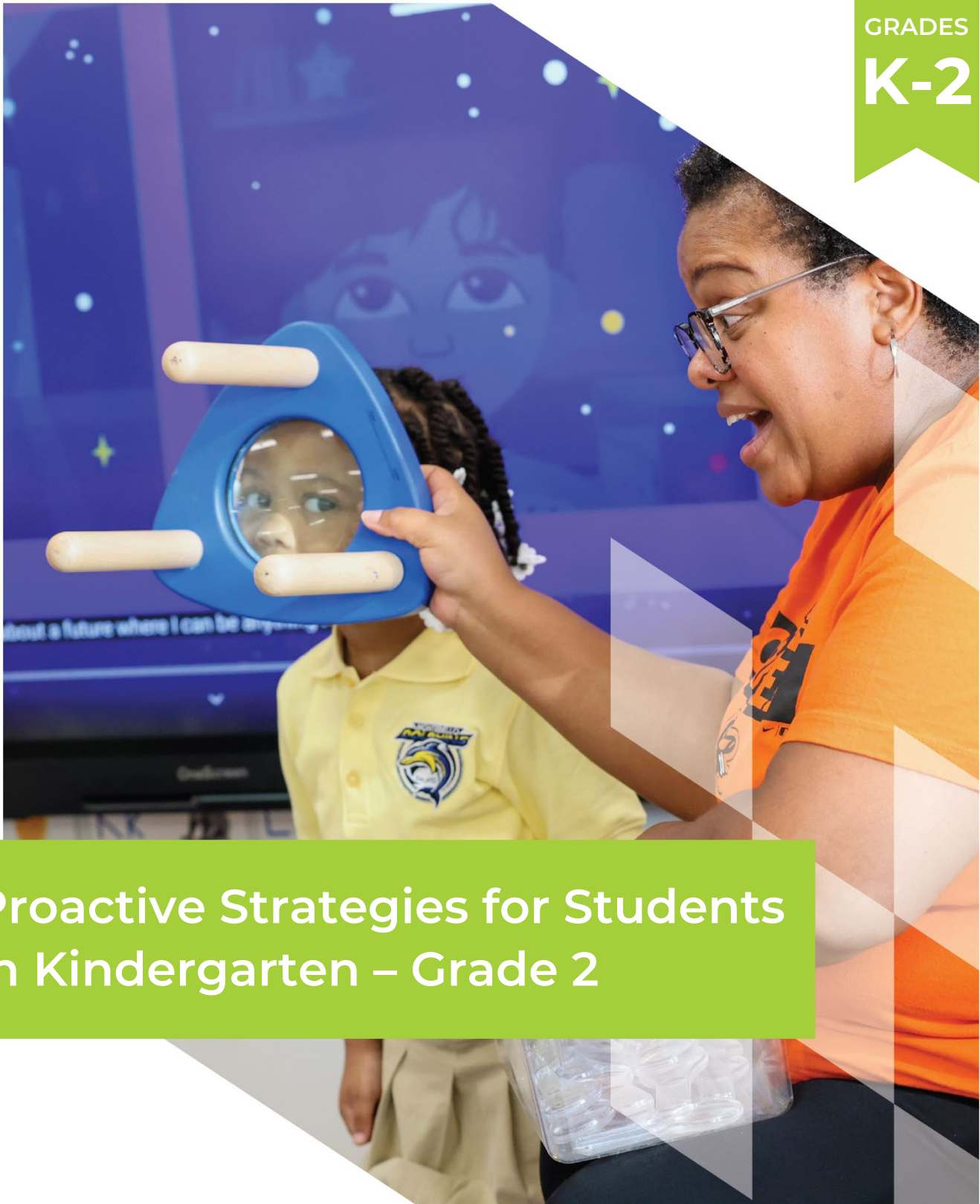
- **Early Number Sense:** Introduce basic counting and number recognition through play, using manipulatives like blocks or toys to represent quantities. This lays the foundation for understanding the value of objects, an early step toward financial literacy.
- **Classroom Jobs:** Assign students simple tasks such as classroom helper or materials organizer, teaching responsibility and an early connection between work and rewards.

Advanced Strategy: Leveled Questioning

To encourage deep understanding all students, especially gifted and advanced students, should be encouraged to ask and answer various levels of questions. Below you will see different levels of questions with examples. The intention is to demonstrate a progression of questions. These questions are not substitutions for current curriculum and instruction practices. Advanced students should be able to spend more cognitive time asking and answering higher-order thinking questions beyond basic recall. These questions are open-ended, meaning there is not one clear answer.

Basic/Recall

- What is the product of 9×8 ?
- What are the first 10 Amendments to the US Constitution called?
- Who is the main character in *The Wild Robot* by Peter Brown?



Proactive Strategies for Students in Kindergarten – Grade 2

Kindergarten - Grade 2 CCR Strategies for Mathematics Readiness

To support early mathematical development, the Kindergarten Math Standards provide clear learning objectives and key concepts. Access the full set of standards through the link below.

* Moderate shifts are expected for elementary school math course standards based on the recommendations of The Maryland Math Standards and Framework Validation Committee. These shifts will be reflected in Maryland's Mathematics Policy and begin to impact elementary school courses in School Year 2026-2027.

Kindergarten Math Standards

[Kindergarten Mathematics Content Standards](#)

[Grade 1 Mathematics Content Standards](#)

[Grade 2 Mathematics Content Standards](#)

[Standards for Mathematical Practice](#)

INSTRUCTIONAL PLANNING

For Kindergarten - Grade 2 Math Readiness

Strategy	Description
Addition, Subtraction, and Number Sense	Provide practice with counting to 100, place value, and basic operations. Activities like using base-ten blocks to build numbers give hands-on experience with concepts.
Introduction to Measurement and Data	Use measuring tapes and rulers in activities like measuring classroom objects to make comparisons and enhance understanding of one-dimensional measurement and data collection.
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., base-ten blocks, open number lines, number bonds, tape diagrams).

FOCUSED LEARNING INTERVENTIONS

For Kindergarten - Grade 2 Math Readiness

Intervention	Objective
Small Group Fact Fluency Games	Use hands-on games like addition bingo, dominoes, or card games to reinforce addition and subtraction facts in a collaborative setting.
Mental Number Line Support	Invite students to work on number lines to support the development of a mental number line and help them visualize addition and subtraction (Kucian et al., 2011).
Use Suggested Scaffolds from Instructional Materials	Identify the supports for diverse learners or suggestions for students who need additional support embedded in district-adopted instructional materials. These may be in the unit and lesson front matter or in callouts throughout the lesson. When internalizing the lesson, note these suggestions and determine how, when, and if the scaffolds could be used.

ASSESSMENT AND MONITORING

For Kindergarten - Grade 2 Math Readiness

Assessment	Purpose
Diagnostic Formatives	Use simple tasks, like asking students to identify numbers on a number grid, show strategy for solving a word problem, or solve basic math facts to measure fluency.
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 Kindergarten - Grade 2 Math Readiness*

Advanced Strategy	Description
Early Algebraic Thinking	Use pattern games to develop algebraic reasoning. For example, present a simple number sequence (e.g., 2, 4, 6, __, 10) and ask students to determine the missing number and the rule (Kaput, 2008).
Multi-Step Modeling Tasks	Present advanced learners with multi-step modeling tasks that challenge students to participate in mathematical modeling and think sequentially.

LANGUAGE DEVELOPMENT SUPPORTS*For MLL Kindergarten - Grade 2 Math Readiness*

Strategy	Description
Math Journals	Invite students to keep math journals where they explain their mathematical reasoning and reflect on their math experience (Moschkovich, 2002).
Vocabulary Walls	Create a math word wall that includes student-created examples.
Math Vocabulary Games	<p>Integrate interactive math vocabulary games into lessons that help young students build both mathematical and language skills. Use games that involve matching numbers to words, identifying shapes and their names, and simple word problems.</p> <p>For multilingual learners, incorporate visual aids, gestures, and bilingual vocabulary cards to bridge language gaps. Activities like "Math Word Bingo" or "Shape Sorting" can make learning fun while reinforcing the connection between math concepts and the language needed to describe them. Encourage students to verbalize their thinking, using complete sentences, and ask questions to facilitate deeper understanding, such as "How many triangles do you see?" or "Can you explain why 10 plus 5 equals 15?"</p>

Strategy	Description
Real Life Math Conversations	<p>Embed math into everyday conversations to promote both problem-solving skills and language development. Encourage students to engage in discussions about numbers, patterns, and measurements in everyday contexts such as counting objects in the classroom, measuring ingredients during a snack or cooking activity, or comparing heights using blocks.</p> <p>For multilingual learners, support the use of math-related terms in both their home language and English. For instance, when measuring objects, you could provide translations for terms like "longer," "shorter," "more," and "less." This strategy helps young learners understand the practical applications of math and builds their ability to articulate mathematical reasoning in both their primary and secondary languages.</p>
Use Suggested Supports from Instructional Materials	<p>Identify the resources and 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.</p>

INDIVIDUALIZED LEARNING SUPPORTS

For Kindergarten - Grade 2 Math Readiness

Strategy	Description
Visual Models	<p>Consistently provide and support students in using number lines, ten frames, and other visual aids to reinforce place value and basic arithmetic.</p>
Adaptive Learning Platforms	<p>Use adaptive technology to conduct focused reviews and develop effective scaffolding to proficiency.</p>

BUILDING A CAREER IDENTITY*For Kindergarten - Grade 2 Math 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.
Awareness of Careers and Community	Expose students and parents to the BIG Picture of Transition and the World of Possibilities.
Positive Problem-Solving Dispositions	Celebrate multiple solution strategies, problem-solving approaches, and persistence in challenging tasks (Dweck, 2006).
Celebrating Diversity in Mathematics	Share stories of mathematicians and mathematical engagements from various backgrounds and cultures (Aguirre et al., 2013).

Kindergarten - Grade 2 CCR Strategies for Literacy Readiness

To support early literacy development, the Kindergarten – Grade 2 Literacy Standards provide clear learning objectives and key concepts. Access the full set of standards through the link below.

Kindergarten Literacy Standards

[Kindergarten Maryland College and Career Read Ready Standards for English Language Arts](#)

[Grades 1-2 Maryland College and Career Read Ready Standards for English Language Arts](#)

INSTRUCTIONAL PLANNING

For Kindergarten - Grade 2 Literacy Readiness

Strategy	Description
Core Instruction	All PreK-3 students must receive Tier 1 literacy instruction, also known as core instruction, aligned to the science of reading. Tier 1 instruction is defined as evidence-based, systematic, differentiated, and explicit instruction
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, vocabulary map, response journals).
Print Concepts/Concepts of Print	<p>Print concepts include the features and organization of print and how print works. This includes left to right and top to bottom directionality when reading, the difference between letters, words, and sentences and the understanding that print conveys meaning and/or a message.</p> <p>Concepts of print lay the groundwork for students to understand the alphabetic principle (each letter represents a corresponding sound). Knowledge of concepts of print and the alphabetic principle are both necessary for effective phonics instruction to occur.</p> <p>Students should begin learning basic skills such as page-by- page reading and following words from left to right and top to bottom. They should notice that words are separated by spaces and that these spaces are the same size.</p> <p>The most important early print concept is letter recognition, which should begin immediately in kindergarten until students have mastered the skill for all letters in the alphabet, both lower and uppercase.</p>

Strategy	Description
Phonemic Awareness:	<p>Phonemic awareness is the ability to focus on and manipulate the smallest units of sound (phonemes) in spoken words. This skill falls under the phonological awareness umbrella. An example is the student’s ability to understand that the word “sit” is made up of the three phonemes /s/, /i/, and /t/, and have the ability to blend these sounds together to make up the word “sit” and change the beginning sound to /f/ to make the new word “fit”. The explicit instruction of this skill is accomplished through lots of experience with manipulating letters and sounds to produce words and changing phonemes to make new words.</p> <p>Explicit and systematic instruction is crucial for students to learn about phonemic awareness from the simple to most complex tasks. Instruction should focus on clear modeling, and explanations and the use of anchor charts, big letter cards, and magnetic boards and letters for letter/sound practice and manipulation. Students should receive both auditory practice (focusing on just sounds) as well as kinesthetic/movement/gesture exercises like clapping, tapping, and using sound boxes with manipulatives to practice representing and manipulating sounds.</p>
Phonics and Word Recognition:	<p>Students must receive explicit and systematic phonics instruction to learn how to decode or read words fluently and understand what they are reading. This includes instruction that clearly explains and demonstrates the relationship between letters (graphemes) and sounds (phonemes). Direct phonics instruction should follow a logical and organized progression from the simplest to most complex letter combinations, patterns, and rules for spelling.</p> <p>Like phonemic awareness, students should be practicing new phonics skills and previously taught skills with daily activities that are fun, engaging, and kinesthetic and movement oriented. Students should use “call and response” teacher and student-led drills, magnetic letters and boards, and journals to practice and record their learning about all phonics patterns and rules from the simplest to the most complex. Teachers should explicitly teach phonics until all students master syllable types, rules,</p>
Fluency	<p>Fluency consists of three things: rate, accuracy, and expression. Expression, or prosody, includes timing, phrasing, emphasis, and intonation. Fluency is built through word recognition, one word at a time. Teaching systematic phonological awareness and phonics, and applying these skills to text, allows students to build automaticity in word reading. Building reading automaticity will improve fluency and result in students’ ability to more easily comprehend text and make connections among topics and experiences in their reading and writing.</p>

Strategy	Description
Writing	<p>Reading and writing are deeply interconnected processes that reinforce and complement each other. Students should be learning to read and write together to receive the benefits of the reciprocal skills. Learning to write follows a progression of stages from Pre-Writing (ages 4-6) to Transitional (Phonetic) Writing (ages 5-7) to Conventional Writing (ages 6-9).</p> <p>Writing should include explicit instruction in letter formation, letter/sound correspondence, handwriting, spacing, and utilizing learned letter patterns and spelling rules to record thinking. Students should be given multiple opportunities for daily writing on self-selected and assigned topics related to their content (ELA, Social Studies, Science, Math) learning. Teachers use mentor authors and texts to teach students specific writing techniques and styles.</p>

FOCUSED LEARNING INTERVENTIONS

For Kindergarten - Grade 2 Literacy Readiness

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

ASSESSMENT AND MONITORING*For Kindergarten - Grade 2 Literacy Readiness*

Assessment	Purpose
Curriculum-Based Assessments	Use evidence from curriculum-based summative and formative assessments to set meaningful goals for growth and achievement.
Universal Screeners	Universal screeners are valid and reliable data collection tools and processes used to assess students' current level of performance in relation to grade-level benchmarks, identifying students who need intervention and those who do not. Because screening takes place multiple times per year with all students, screeners are typically designed to be easy, quick, and repeatable.
Diagnostic Assessments	Diagnostic Assessments are used to identify students' strengths and identify gaps in learning. Diagnostic assessments assess specific skills or components of reading such as phonological awareness, phonics skills, and fluency. The results of diagnostic assessments inform instruction and intervention and help teachers plan their lessons by identifying areas where students may need additional support or remediation. These assessments are not graded but help inform instruction. Diagnostic assessments can be formal standardized tests or informal measures such as criterion-referenced tests to measure and inform instructional next steps. Not all children need this kind of in-depth reading assessment, which is most important for struggling and at-risk readers.
Curriculum-Based Assessments	Use evidence from curriculum-based summative and formative assessments to set meaningful goals for growth and achievement.

LANGUAGE DEVELOPMENT SUPPORTS

For Kindergarten - Grade 2 Literacy Readiness

Strategy	Description
<p>Interactive Read Alouds with Language Scaffolding</p>	<p>Conduct daily read-aloud sessions that model fluent reading and comprehension while incorporating language supports for multilingual learners. Choose diverse, culturally relevant texts that engage young students and introduce them to new vocabulary and concepts. Encourage discussion by asking open-ended questions that prompt students to think critically about the story, such as "What do you think will happen next?" or "How would you feel if you were the character?"</p> <p>For multilingual learners, use picture clues, translations, and contextual explanations of unfamiliar words. Invite students to respond in their home language when possible, and then help them express their ideas in English, reinforcing language development while building literacy skills.</p>
<p>Phonemic Awareness and Word Building Through Play</p>	<p>Strengthen early literacy by focusing on phonemic awareness and word-building activities. Use letter cards, magnetic letters, or interactive apps that help students recognize sounds, syllables, and the structure of words. Activities like rhyming games, sound sorting, and building simple words help students recognize phonetic patterns and decode words.</p> <p>For multilingual learners, make explicit connections between sounds in their home language and English, identifying similar sounds or letter patterns. This supports their ability to transfer phonetic knowledge from one language to another. Pair activities with visual supports, songs, and chants to reinforce phonological awareness in a fun, engaging way.</p>
<p>Use Suggested Supports from Instructional Materials</p>	<p>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.</p>

BUILDING A CAREER IDENTITY*Kindergarten - Grade 2 Literacy Readiness*

Strategy	Description
Literacy Engagement and Awareness	Students are exposed to daily reading, writing, speaking, and listening instruction and activities that promote the life-long desire to utilize literacy skills to develop a sense of self, a connection to the world around them, an ability to problem solve, and learn about and explore concepts in literature and informational text in all content areas (social studies, science, and math).
Collaboration and Communication	Students regularly engage in discussions and group activities. Learning how to share ideas, listen to others, and express feelings in an appropriate manner will contribute to a life-long ability to communicate thinking and work with others to engage in critical thinking to solve problems.
Global Awareness & Cultural Competence	The ability to recognize similarities and differences in people from different cultures who represent diverse experiences and perspectives must learn and work together. Students learn about other perspectives and cultures through reading and listening to a wide range of literary and informational texts appropriate to students' developmental stages. Students learn to effectively communicate with people of varied backgrounds and identities.

Kindergarten - Grade 2 CCR Strategies for Social Studies

In the early elementary years, social studies instruction plays a crucial role in shaping students' understanding of their communities, responsibilities, and the broader world. Rooted in the [Maryland Social Studies Standards](#) and the [C3 Framework](#), effective instruction in kindergarten through 2nd grade helps students build foundational knowledge of civics, geography, history, and economics through engaging, inquiry-based activities. These early experiences lay the groundwork for college and career readiness by fostering critical thinking, collaboration, and a growing sense of civic responsibility.

Strategies for social studies instruction in kindergarten through 2nd grade differ significantly from those in later grades, such as 3rd grade, where students are introduced to more complex concepts and tasks. While 2nd graders engage in activities that focus on community roles, basic timelines, and local geography, 3rd graders begin to analyze broader historical events, cause-and-effect relationships, and more in-depth problem-solving activities. The transition from 2nd to 3rd grade represents a shift from basic exploration and identification to more structured critical thinking and analysis, allowing students to deepen their understanding of the world as they prepare for more advanced academic challenges.

INSTRUCTIONAL PLANNING

For Kindergarten - Grade 2 Social Studies Readiness

Strategy	Description
Community Walks	<p>Objective: Help students understand their community and how people contribute to it.</p> <p>Activity Details: Take students on a short walk around the school or nearby neighborhood. During the walk, point out important places like the fire station, post office, or town hall. Discuss the roles of community helpers such as firefighters, mail carriers, and government officials. Afterward, have students create simple maps of the route, labeling the community locations.</p> <p>Skills Developed: Understanding community roles, geography (mapping), and civic engagement.</p> <p>Standards Alignment: 5.0 Geography, 1.0 Civics</p>

Strategy	Description
Cooperative Problem Solving	<p>Objective: Help students understand how communities work together to solve problems.</p> <p>Activity Details: Present a scenario in which the classroom has a problem to solve, such as needing to share resources or create new rules. Ask students to work together to come up with a solution. For example, if there aren't enough materials for everyone, have students discuss and vote on how to share or take turns. Document their ideas and decisions on a class chart.</p> <p>Skills Developed: Problem-solving, cooperation, and leadership.</p> <p>Standards Alignment: 1.0 Civics, 6.0 Skills & Processes</p>
Class Constitution	<p>Objective: Introduce the concept of rules and responsibilities in a community.</p> <p>Activity Details: Work together as a class to create a simple "Class Constitution." Guide students in discussing what rules are necessary to keep the classroom fair and safe. After agreeing on a few key rules, write them down on a large poster. Have each student sign the "Constitution" as a symbol of their agreement to follow the rules.</p> <p>Skills Developed: Understanding authority, responsibility, and civic values.</p> <p>Standards Alignment: 1.0 Civics, 6.0 Skills & Processes</p>

FOCUSED LEARNING INTERVENTIONS

For Kindergarten - Grade 2 Social Studies Readiness

Intervention	Objective
Small Group Instruction	Provide targeted support by grouping students based on their specific needs. Focus on reteaching key social studies concepts like community roles, rules, or problem-solving through hands-on activities and discussions in smaller settings
Sentence Starters	Offer sentence starters or sentence frames to help students articulate their ideas. For example, "A good leader is someone who...", "Our community works together by...", or "Maps show us where...". This support can help them engage in social studies discussions and writing tasks

Intervention	Objective
Multi-Sensory Learning	Incorporate multiple senses into learning activities to support different learning styles. For example, students can physically sort pictures of community helpers into categories or use their hands to construct simple models of historical buildings
Flexible Grouping	Regularly change student groups based on their needs and progress. This allows students to experience different learning environments and benefit from both peer support and targeted interventions

ASSESSMENT AND MONITORING

For Kindergarten - Grade 2 Social Studies Readiness

Assessment	Purpose
Classroom Discussions	Informal discussions where students answer questions about their community, rules, and civic responsibilities provide insight into their understanding of key concepts. Teachers use guiding questions such as "What makes a good leader?" or "How do people help each other in our community?" to assess students' ability to make connections between their learning and their own experiences
Performance Based Tasks	In kindergarten, 1st grade, and 2 nd grade, summative assessments often include performance-based tasks that allow students to demonstrate their understanding of social studies content. For example, students may create drawings of their community, explaining the role of different members, or work on group projects that solve a classroom issue, using democratic processes such as voting
Student Portfolios	Teachers collect student work over time, including drawings, written reflections, or collaborative projects, to assess long-term progress. These portfolios are evaluated against specific grade-level standards and objectives outlined in the Maryland Social Studies Framework. Teachers use the portfolio to track individual growth and readiness for the next grade level

Assessment	Purpose
Checklists & Rubrics (Progress Monitoring)	Teachers use rubrics aligned with social studies standards to assess specific skills, such as the ability to identify community helpers or understand geographic tools like maps. Checklists help monitor whether students are progressing toward meeting grade-level expectations in areas such as civic engagement and problem-solving

ADVANCED ACADEMICS

For Kindergarten - Grade 2 Social Studies Readiness

Advanced Strategy	Description
Socratic Seminars and Discussions	Facilitate Socratic-style discussions where advanced students analyze and debate social studies topics. Encourage them to listen to peers' perspectives, ask follow-up questions, and articulate their own viewpoints clearly
Primary Source Analysis	Introduce advanced students to simple primary sources, such as photographs, letters, or maps. Teach them to analyze these sources by asking questions like, "What does this photo tell us about life in the past?" and "Why is this map important?"
Cross-Curricular Connections	Connect social studies content with other subject areas, such as math, science, or art. For instance, students can create bar graphs to represent data on community roles or draw maps that show geographic features they've studied

LANGUAGE DEVELOPMENT SUPPORTS*For MLL Kindergarten - Grade 2 Social Studies Readiness*

Strategy	Description
Labeling Classroom and Community Objects	Label objects in the classroom with their names (e.g., “map,” “globe,” “flag”) to reinforce social studies vocabulary. Students can practice reading the labels and associating words with the objects
Role-Playing and Dramatic Play	Engage students in role-playing activities where they act out different social studies scenarios (e.g., being a community leader or solving a problem in their community). This encourages the use of specific vocabulary in a meaningful context
Multisensory Learning	Provide opportunities for students to engage with vocabulary through hands-on activities, such as building a model community or using manipulatives like miniature figures to represent different jobs. This appeals to various learning styles and strengthens language development
Language-Rich Bulletin Board	Create bulletin boards that display student work along with social studies vocabulary words. For example, a “Community Helpers” board can showcase drawings of different helpers, each labeled with the corresponding job title
Interactive Storytelling with Diverse Perspectives	<p>Engage students in storytelling that highlights diverse cultural, historical, and community perspectives. Use picture books, digital media, and simple narratives that introduce key concepts in social studies, such as community roles, geography, and history, in ways that are age-appropriate. During read-alouds, ask questions that stimulate critical thinking, such as “How do you think this person feels?” or “What could they do to help their community?”</p> <p>For multilingual learners, provide visual aids, picture dictionaries, and gestures to support vocabulary acquisition and understanding. Encouraging students to share their own experiences in their home language, then help them translate and share in English, builds both language and social understanding.</p>

Strategy	Description
Cultural Exploration Through Hands-On Activities	<p>Create opportunities for students to explore and understand their own and others' cultures through hands-on activities. This could include simple mapping activities where students identify places of significance in their community or home country, or creating family trees and cultural collages that reflect their backgrounds.</p> <p>For multilingual learners, allow them to contribute information in their native language, then support them in sharing it in English. This not only builds language but also fosters an appreciation for diversity and the ability to make connections between personal experiences and broader social contexts. Activities such as role-playing community helpers, dressing up in traditional clothing, or participating in culturally relevant crafts can help students connect abstract social studies concepts to real-world experiences.</p>
Use Suggested Supports from Instructional Materials	<p>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.</p>

INDIVIDUALIZED LEARNING SUPPORTS

For Kindergarten - Grade 2 Social Studies Readiness

Strategy	Description
Hands-On Learning and Manipulatives	<p>Provide tactile experiences through the use of physical manipulatives, such as maps, model community buildings, or figurines representing community helpers, to help students better understand abstract concepts through touch.</p>
Peer Buddies and Collaborative Learning	<p>Pair students with a peer buddy for social studies activities. A peer buddy can offer support during group work, discussions, or projects, helping students with special needs engage socially and academically in the classroom</p>
Interactive and Multi-Sensory Learning	<p>Incorporate multi-sensory activities like tracing maps, using sand or clay to model geographic features, or engaging in role-playing to act out historical events. Multi-sensory learning helps students with different learning needs connect to the content</p>

BUILDING A CAREER IDENTITY*For Kindergarten - Grade 2 Social Studies Readiness*

Strategy	Description
Guest Speakers from the Community	Invite family members or local professionals to speak to the class about their jobs. Students can ask questions and learn about different career paths directly from professionals.
Draw and Write About Future Jobs	Encourage students to draw themselves in a future career and write or share a few sentences about why they chose that job. This promotes early reflection on their own career interests
Use of Career-Related Vocabulary	Introduce career-related words (e.g., "responsibility," "leader," "helpful") into daily discussions. Reinforcing vocabulary helps students understand the importance of these roles
Connect Careers to Social Studies Themes	Integrate career identity-building activities into broader social studies lessons, such as civics, geography, or economics. For example, teaching about community leaders can lead to discussions about careers in leadership roles, like being a mayor or a city planner

Kindergarten - Grade 2 CCR Strategies for Science

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

- Provide in public schools an instructional program in science each year for all students in grades prekindergarten—8; and
- Offer in public schools a science program in grades 9—12 which enables students to meet graduation requirements and to select science electives.

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

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

INSTRUCTIONAL PLANNING

For Kindergarten - Grade 2 Science Readiness

Strategy	Description
Use Student Questions	Elicit, record, and leverage children's questions based on observations throughout the learning process to help align their interests and experience to learning. Facilitate students to collaboratively plan and carry out investigations or problem-solve around questions or problems they identify based on their interests.
Hands-on Activities	Facilitate students to collaboratively plan and carry out simple investigations, collaboratively develop and/or use models to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s) and develop proposed objects or tools to solve a problem. Students also make observations and collect measurements to make comparisons.

Strategy	Description
Real-world Connections (Phenomena or Storylines)	Students use systems thinking and models (i.e., diagrams, drawings, physical replicas, dioramas, dramatization, or storyboards) to explain the phenomena or to give a context for the ideas to be learned. 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.
Collaborative Learning	<p>Group children in a variety of ways during investigations and discussions so they can practice teamwork and collaborative problem-solving.</p> <p>Students communicate predictions, observations, or design ideas and/or solutions with others in oral, written, drawn, and/or gestured forms that provide detail to make comparisons.</p>
Productive Student Discourse (Talk)	Students make their thinking visible through talk, explanation, and argument by building on prior experiences to compare ideas and representations and to use evidence and ideas in constructing evidence-based accounts of phenomena and solutions and arguments about the natural and designed world to help them learn how to constructively resolve conflicts.

FOCUSED LEARNING INTERVENTIONS

For Kindergarten - Grade 2 Science Readiness

Intervention	Objective
<p>Inclusive Science Classroom Culture</p>	<p>An inclusive science classroom culture supports equitable access to science programming by addressing bias and perceptions about science, scientists, and scientific ability.</p> <ul style="list-style-type: none"> • 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.
<p>Student Engagement</p>	<p>Provide student choice or autonomy related to the sensemaking of scientific ideas.</p> <p>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.</p> <p>Create opportunities for individual and collective reflection that promote positive student scientific identities, collaboration, personal coping skills, and feedback.</p>
<p>Varied Modes of Expression</p>	<p>Communicate directions and information in a variety of formats (e.g., verbal, visual, gestured) and allow students to express their thinking through a variety of modes (e.g., verbal, drawn, gestured, written, digital).</p>
<p>Visual Aids and Manipulatives</p>	<p>Pictures, diagrams, charts, videos, models, simple maps, interactive tools, and safe materials as manipulatives can help students interact, explore, and investigate concepts.</p>

ASSESSMENT AND MONITORING*For Kindergarten - Grade 2 Science Readiness*

Assessment	Purpose
Three-Dimensional Assessments and Feedback	Assessing students in the Maryland <i>NGSS</i> requires three-dimensional tasks and assessments, which include disciplinary core ideas, science and engineering practices, and crosscutting concepts. 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. Evidence about students' proficiency with the three-dimensional learning targets can be collected through the use of science notebooks/journals, observational notes, formal assessment tasks, individual interviews, checklists, and rubrics.
Checklists or 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 patterns and cycles in space systems, weather and climate, and interdependent relationships in ecosystems.
Science Notebooks/Journals	Science notebooks/journals offer students a dedicated space to document their thoughts and the evolution of their understanding in relation to learning targets throughout the learning process. As students draw, write, and record their ideas, teachers can monitor comprehension of the science standards and foster meaningful discussions related to the student's understanding. These notebooks not only capture student thinking but also serve as a record of scientific investigations and a tool for self-expression and reflection. Rather than being solely assessments for grading, they function as tools for assessing learning over time. This allows teachers to gather ongoing insights into student progress, enabling data-informed decisions for planning and adjusting instructional activities based on student strengths and areas that need improvement.

Assessment	Purpose
Feedback	<p>Student understanding of science concepts is an iterative process that builds over time with the support of self, peer, and teacher feedback that is focused on three-dimensional learning targets. Feedback through notebooks/journals, observational notes, formal assessment tasks, individual interviews, checklists, and rubrics can be regularly incorporated, along with time for students to adjust their thinking and work. Teachers should 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.</p>

LANGUAGE DEVELOPMENT SUPPORTS*For MLL Kindergarten - Grade 2 Science Readiness*

Strategy	Description
Hands-On Exploration and Inquiry-Based Learning	<p>Engage students in hands-on science investigations that focus on observing, predicting, and testing ideas. For instance, activities like exploring the properties of different materials, planting seeds to study growth, or investigating the outdoor area of the school can build their scientific thinking. Encourage students to describe their observations, ask questions, and make predictions.</p> <p>For multilingual learners, use visual supports like pictures or diagrams and after common experiences have been provided, provide academic vocabulary words in both their home language and English. Pair students up in diverse groups to foster peer interactions, which can help them practice scientific vocabulary in a collaborative environment. Use sentence starters like "I observe...", "I think...", or "It feels like..." to help them formulate their thoughts in English.</p>
Science Vocabulary Through Labeling and Categorization	<p>Build foundational science vocabulary by creating opportunities for students to label objects, categorize items, and connect words to their environment. For example, students can sort animals by habitat (land, water, air), classify different plants and trees, or explore natural objects like rocks and leaves. Use labeling charts, word walls, and interactive notebooks to reinforce vocabulary.</p> <p>For multilingual learners, provide translations of key terms and encourage students to use their home language as a bridge to better understand the content. Pair visual aids (like diagrams, photos, or videos) with vocabulary words to strengthen comprehension, and involve students in simple discussions about what they have learned using the science words in context.</p>
Use Suggested Supports from Instructional Materials	<p>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.</p>

Kindergarten - Grade 2 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 [Universal Design for Learning \(UDL\)](#) framework involves multiple means of engagement, representation, and expression. When used appropriately, this framework helps accommodate diverse learning preferences and needs, ensuring all students have equal opportunities to access and engage with library and digital resources.

To learn more about planning for the effective integration of digital tools, please review these additional resources:

- [Integrating Technology into a Lesson: Considerations for Teachers](#)
- [Maryland Digital Learning Standards for Students](#)
- [Maryland Digital Learning Standards for Educators](#)
- [Lesson and Program Planning: School Library Media Considerations](#)
- [Maryland School Library Media Standards for Learners, Librarians, and Libraries](#)

SCHOOL LIBRARY MEDIA

School library media (SLM) programs are essential in supporting the literacy needs of Kindergarten to second (K-2) grade students learners by offering a balanced collection that integrates the Science of Reading (SOR) with the Joy of Reading (JOR). Collection development encompasses a wide range of materials, including print, audio, and digital formats, designed for both informational and recreational reading. This approach prioritizes the selection of diverse, culturally relevant, and age-appropriate fiction and non-fiction texts, including texts for multilingual learners. (Farmer, 2022)

Equitable access to high-quality digital materials such as databases supports meaningful instruction and aligns with state standards. Collaboration with public libraries strengthens resource sharing, while family engagement initiatives, such as book fairs and story time events, invite parents to be active participants in their children's literacy journey. For K-2 grade students, digital literacy instruction should emphasize developing essential skills that prepare them for safe, responsible, and effective technology use.

DIGITAL LEARNING

In K-2, digital learning can significantly enhance foundational literacy and numeracy skills. Digital tools can personalize instruction by adapting to individual needs, enabling teachers to provide more targeted support to young learners. According to Harvard Medical School, digital devices can facilitate learning when content is carefully curated, promoting a balance between screen time and real-life experiences critical to early brain development (Ruder, 2019). High-dosage tutoring facilitated through digital platforms has also proven effective at addressing early skill gaps and ensuring students remain on track (Robinson et al., 2021).

SCREEN TIME RECOMMENDATION: K-5 (Ages 5-10)

The recommendation for children aged 5 and up is to shift focus from a strict time limit to managing the quality of screen use. Screen time should ideally be limited to about one to two hours a day. Monitoring the type of content is crucial—interactive educational activities are preferable over passive viewing, and excessive recreational screen use should be limited to avoid negative impacts on behavior and sleep (American Academy of Child and Adolescent Psychiatry, 2024; Berthold, 2022; Ruder, 2019).

SCHOOL LIBRARY MEDIA STRATEGIES

For Kindergarten - Grade 2 Readiness

Strategy	Description
Digital Literacy	For K-2 students, digital literacy skills should focus on building foundational competencies that prepare them for safe, responsible, and effective technology use. Key digital literacy skills for this age group include basic computer skills, an introduction to online safety, basic internet navigation, digital citizenship, and collaboration (International Society for Technology in Education, n.d.).
High Quality Instructional Materials	School library resources are aligned with state standards and carefully selected to offer meaningful instructional support.
Teacher Collaboration	School Library Media Specialists (SLMS) collaborate with teachers and staff to establish library stations or centers within classrooms. As experts in literature, SLMS support teachers, counselors, and other specialists by identifying appropriate texts for lessons and projects. They stay informed about the latest award-winning literature and emerging trends to ensure the availability of timely, engaging resources. Examples of their contributions include providing books and materials for classroom themes, social-emotional learning (SEL), and class projects.

DIGITAL LEARNING STRATEGIES*For Kindergarten - Grade 2 Readiness*

Strategy	Description
Parental Involvement Tools	Apps that engage parents to work with their children on digital activities can be essential, as young children benefit significantly from adult interaction and guidance. Empowering parents to effectively support their child’s at-home learning is essential to fostering fair and equitable opportunities for all students (Ross, 2023).
Collaborative Tools	Use collaborative resources such as interactive whiteboards, Google Apps, or Microsoft Tools. These tools should be led by educators who promote social interaction and collaboration skills so students can learn with and from their peers.
Virtual Fieldtrips	Provide virtual experiences, when appropriate, that can accommodate different learning preferences. These experiences can provide opportunities for students to build background knowledge.
Virtual High-Dosage Tutoring	Studies have found that small-group, high-dosage tutoring sessions—three or more times per week—are especially effective at improving literacy and numeracy outcomes at these early grade levels (Robinson et al., 2021).

DIGITAL LANGUAGE DEVELOPMENT SUPPORTS

For MLL Kindergarten – Grade 2 Readiness

Strategy	Description
<p>Interactive Digital Tools for Storytelling and Collaboration</p>	<p>Introduce students to digital platforms and tools like KidPix, Seesaw, or Tinkercad that allow them to create digital stories, collaborate on group projects, or explore simple coding. For example, students can use an app like Seesaw to record themselves reading a story or describing a picture in their own words. This encourages them to practice speaking, writing, and listening while using digital tools.</p> <p>For multilingual learners, incorporate visual prompts, audio recordings in their home language, and bilingual dictionaries within the digital tools to bridge gaps in understanding. This strategy also helps students develop foundational digital literacy skills, like using a mouse, keyboard, or touchscreen, which are important for future academic and career success.</p>
<p>Digital Literacy through Online Learning Games and Resources</p>	<p>Use age-appropriate, educational websites or apps that offer interactive learning games in literacy, math, science, and other subjects. Platforms such as Starfall, ABCmouse, or Epic! offer opportunities for students to engage with interactive lessons and books.</p> <p>For multilingual learners, select resources that provide bilingual options or are designed to support language development through visual and audio cues. Encourage students to navigate digital environments independently by providing instructions and feedback through visuals, videos, and voice commands. This helps develop their ability to use technology confidently, a critical skill for future academic and career settings.</p>

Advanced Academics for All Subjects: Kindergarten - Grade 2

There are three major goals for early talent development which are listed below:

Provide opportunities for all children to develop and demonstrate advanced learning behaviors, including children from groups underrepresented in advanced programs.

Build a profile of student strengths over time, prekindergarten to second grade, which can be used to document the need for differentiated instruction and gifted and talented education.

Provide models of the essential learning strategies of analyzing attributes, questioning and creative problem solving across the early learning years.

Advanced Strategy: Early Talent Development

Two example modules per grade with lessons/resources are included below:

- [Kindergarten: All About Attributes](#) – This module focuses on communicative and perceptive behaviors to strengthen student observation, description, and sorting skills.
- [Kindergarten: A Sense of Wonder](#) – This module focuses on inquisitive and persistent behaviors for students to question and approach problems, as well as identify attributes to sort, classify, and make inferences.
- [First Grade: Design Dilemma](#) – This module focuses on resourceful and creative behaviors for students to design and build a suitable structure.
- [First Grade: Thinking Big](#) – This module focuses on creativity, logical reasoning, memory, and spatial reasoning for students to enhance critical thinking and reasoning skills.
- [Second Grade: Preservation Problem Solvers](#) – This module focuses on leadership and resourceful behaviors for students to enhance critical thinking and creative problem-solving skills.
- [Second Grade: Tremendous Trees](#) – This module focuses on inquisitive and creative behaviors for students to enhance analogical reasoning skills as they utilize observational data. Students are allowed and encouraged to explore and inquire about topics of study by

Advanced Strategy: Social Emotional Learning

Dr. Derek Cavilla established a framework for developing gifted learners social emotional learning skills entitled Cavilla's Taxonomy of Affective Curriculum for Gifted Learners. This framework provides information to help gifted learners achieve their potential through social emotional learning. Gifted children learn how to work through challenges and perceived failures as well as set manageable and meaningful goals. Below contains additional information at specific grade band levels as well as direct information to Cavilla's work.

K-1: Social skills related to cooperation, respect, and responsibility are a central part to the framework for early learners. Developing these skills helps learners at this level understand their environments. Additionally, students can start to develop an awareness around their self-image. Students can then view themselves as important contributors to their environments, valuing self and others. Exploring the process of change

Strategy: Advancing Career Awareness and Literacy

- **Advanced Activities:** For students who demonstrate advanced readiness, introduce more complex career exploration activities, such as researching different roles in the community or presenting information about a job they are interested in.
- **Financial Literacy Expansion:** Begin simple budgeting exercises (e.g., managing tokens or classroom points) to help students understand the basics of saving and making choices.

Building College and Career Identities in Kindergarten - Grade 2

Overview:

In the early years, building a foundation of curiosity, self-awareness, and early career exploration is critical to developing college and career readiness (CCR). The strategies in Pre-K through Grade 2 focus on fostering a love for learning, integrating Social Emotional Learning (SEL), and introducing basic concepts of community and careers in a developmentally appropriate way.

Goals:

- Foster curiosity and exploration through play-based learning.
- Integrate Social Emotional Learning (SEL) to promote self-awareness, self-management, and responsible decision-making.
- Begin introducing career concepts in the context of community roles and everyday experiences.
- Lay the groundwork for financial literacy through simple, hands-on experiences.
- Align academic skills with early career identity development, blending literacy, math, and social studies with real-world applications.

Focus: Exploration and Career Identity Building

- **Play-Based Career Exploration:** Continue role-playing activities and introduce projects that explore careers in the community (e.g., “What do scientists do?”). Hands-on activities like pretend grocery stores or classroom jobs help children understand how careers connect to their everyday lives.
- **Career Identity Building:** Begin associating children’s strengths and interests with potential careers. Use simple career inventories (e.g., “What do you like to do?”) to help students reflect on their skills.

Focus: Integration of SEL and Financial Literacy

- SEL and Collaboration: Focus on activities that encourage teamwork, problem-solving, and social responsibility, such as group projects or class rules discussions.
- Financial Literacy Through Real-Life Contexts: Use practical experiences to introduce early financial concepts, such as counting, saving, and basic decision-making. For example, activities like “classroom store” help students learn about choices and managing simple resources (e.g., points or tokens).

Focus: Hands-On Learning and Early Academic Skills

- Math Readiness: Provide opportunities for hands-on exploration of math concepts, such as using manipulatives for addition and subtraction or engaging with patterns and shapes.
- Literacy Readiness: Foster early reading and writing skills by incorporating interactive read-alouds, storytelling, and vocabulary games that also introduce career-related vocabulary.

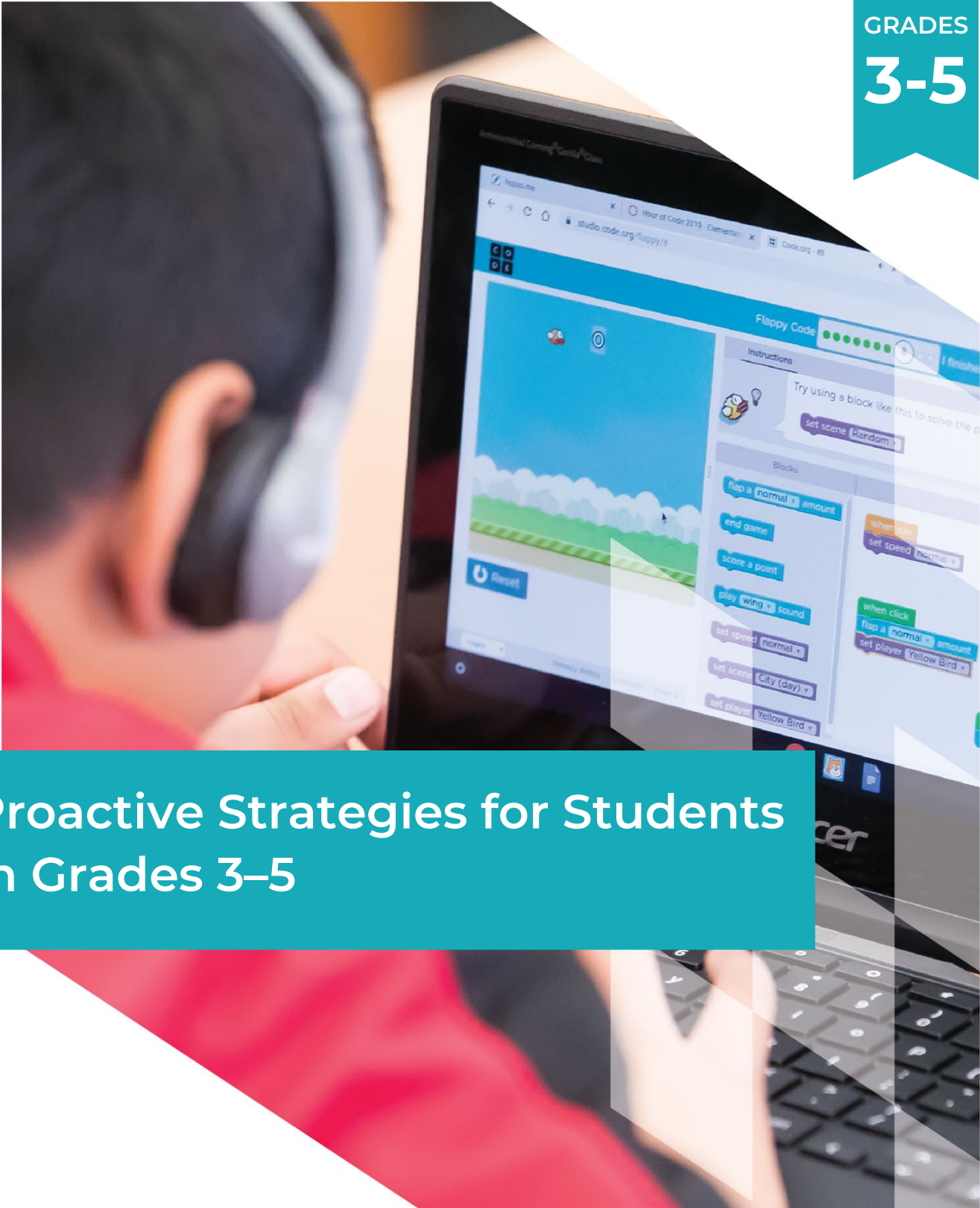
Focus: Career and Financial Identity Development

- Linking Academic Skills to Careers: Show students how what they are learning applies to future careers. For example, link math skills (e.g., measuring) to careers in construction or science. Emphasize how financial literacy is part of daily life and future decision-making.
- Positive Problem-Solving Dispositions: Encourage students to develop a growth mindset and persistence when faced with challenges. Celebrate multiple solution strategies, reinforcing that problem-solving is a valuable career skill

Focus: College and Career Readiness Assessment Tools

- Observational Assessments: Teachers monitor students during play and group activities to assess social, emotional, and academic skills.
- Portfolio-Based Assessments: Collect student work such as drawings, early writing samples, or reflections on class projects to track their progress in career awareness and academic skills.
- Simple Checklists and Rubrics: Use checklists to evaluate specific skills such as early number sense, career role awareness, or SEL competencies (e.g., collaboration, empathy).

GRADES
3-5



Proactive Strategies for Students in Grades 3–5

Grades 3-5 CCR Strategies for Mathematics Readiness

To support early math development, Grades 3-5 Math Standards provide clear learning objectives and key concepts. Access the full set of standards through the link below.

*Moderate shifts are expected for elementary school math course standards based on the recommendations of The Maryland Math Standards and Framework Validation Committee. These shifts will be reflected in Maryland’s Mathematics Policy and begin to impact elementary school courses in School Year 2026-2027.

Grades 3-5 Literacy Standards

[Grade 3 Math Content Standards](#)

[Grade 4 Math Content Standards](#)

[Grade 5 Math Content Standards](#)

[Standards for Mathematical Practice](#)

INSTRUCTIONAL PLANNING

For Grades 3-5 Math Readiness

Strategy	Description
Fractional Reasoning and Numeracy	Use visual models such as fraction circles, bars, and number lines to deepen understanding of fractions. Engage students in activities that connect fractions to real-world contexts.
Arithmetic and Multiplication Fluency	Use engaging contexts and games to build multiplication and division fluency. Reinforce connections to fractional concepts.
Geometry and Measurement	Incorporate activities with measuring tools to explore area, perimeter, and measurement concepts. Incorporate fractional units into measurement activities to help students connect fractional reasoning to spatial concepts.
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., base-ten blocks, ratio tables, open number lines, fraction strips, tape diagrams).

FOCUSED LEARNING INTERVENTIONS

For Grades 3-5 Math Readiness

Intervention	Objective
Multiplication Fluency Games	Use collaborative games and activities that focus on multiplication fluency.
Fraction Models	Consistently provide tools like fraction strips and number lines to help students compare, add, and subtract fractions (Behr et al., 1992).
Use Suggested Scaffolds from Instructional Materials	Identify the resources and 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 3-5 Math Readiness

Assessment	Purpose
Diagnostic Formatives	Conduct ongoing assessments focused on place value and fraction comparison, equivalence, and basic operations.
Curriculum-Based Summatives	Develop quantifiable grade-level goals for student achievement and growth on curriculum embedded summative assessments.
Progress Monitoring	Interactive platforms that provide responsive content should be used to monitor students' progress on numeracy development and fractional reasoning concepts.

ADVANCED ACADEMICS*For Grades 3-5 Math Readiness*

Advanced Strategy	Description
Pre-Algebra Puzzles	Use simple algebraic puzzles (e.g., solving for unknowns in various ways) to build students' algebra-readiness.
Connecting Geometry to Algebraic Thinking	Provide opportunities to explore the relationships between perimeter, area, and algebraic expressions.
Multi-Step Modeling Tasks	Present advanced learners with multi-step modeling tasks that challenge students to participate in mathematical modeling and think sequentially.

LANGUAGE DEVELOPMENT SUPPORTS*For MLL Grades 3-5 Math Readiness*

Strategy	Description
Structured Math Discussions with Fractions	Provide sentence frames and consistently model precise vocabulary to help students articulate their thinking about fractions.
Visual Word Walls	Use visual word walls that help students connect new mathematical terms with a visual representation. This is especially important with fractional concepts and advanced geometric phenomena.
Problem Solving Through Real World Applications	<p>Help students connect mathematical concepts to real-world scenarios, fostering both critical thinking and practical application. For example, have students engage in project-based learning where they solve problems related to budgeting, shopping, or planning a trip. You can introduce vocabulary and mathematical operations in contexts such as calculating prices, distances, or quantities.</p> <p>For multilingual learners, provide visual aids, language support through bilingual word banks, and opportunities to explain their reasoning in both their home language and English. This builds mathematical reasoning, language, and problem-solving skills, all of which are important for career readiness.</p>

Strategy	Description
Interactive Digital Tools for Math Exploration	Use digital tools like Khan Academy, DreamBox, or other math apps to allow students to explore mathematical concepts through interactive lessons and games. These tools provide personalized learning paths, enabling students to advance at their own pace and revisit concepts as needed. For multilingual learners, many of these platforms offer translations and visual support, making complex ideas more accessible. In addition, integrate math vocabulary lessons within these tools to reinforce both mathematical fluency and language development. This approach not only builds students' mathematical skills but also familiarizes them with digital platforms that are widely used in educational and professional settings.
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 3-5 Math Readiness

Strategy	Description
Concrete-Representational-Abstract	Students progress from working with concrete materials to making drawings to writing numerical/symbolic phrases and sentences to model mathematics. (Maccini and Gagnon 2000; Miller and Mercer 1993)
PALS (peer-assisted tutoring)	Students are strategically teacher-trained peer tutors. Research suggests that it enables students to make connections with abstract math concepts. (Fuchs, Fuchs, and Karns 2001; Fuchs et al. 1997)

BUILDING A CAREER IDENTITY*For Grades 3-5 Math 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.
Awareness of Careers and Community.	Expose students and parents to the BIG Picture of Transition and the World of Possibilities.
Real-World Math Connections	Show how mathematical concepts appear in everyday life (e.g., cooking, shopping, time) (Boaler, 2002).
Peer-to-Peer Discourse	Facilitate and scaffold discussions where students share reasoning and problem-solving with each other. This should be done to promote mathematical reasoning and communicating, but also to promote ownership and autonomy (Smith & Stein, 2011).

Grades 3-5 CCR Strategies for Literacy Readiness

To support early literacy development, the Grades 3-5 Literacy Standards provide clear learning objectives and key concepts. Access the full set of standards through the link below.

Grades 3-5 Literacy Standards

[Maryland College and Career Ready Standards for English Language Arts Grades 3-5](#)

INSTRUCTIONAL PLANNING

For Grades 3-5 Literacy Readiness

Strategy	Description
Core/Tier 1 Instruction	All Grades 3-5 students must receive Tier 1 literacy instruction, also known as core instruction, aligned to the science of reading. Tier 1 instruction is defined as evidence-based, systematic, differentiated, and explicit instruction. The term “ adolescent literacy ” is used to describe literacy skills for students in grades 4-12.effective teaching rooted in 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).

Strategy	Description
Phonics and Word Study	<p>As students progress through the intermediate grades, they should be receiving continued explicit, systematic instruction in phonics that include all syllable types, and be increasingly able to utilize all phonics patterns and spelling rules, as well as spelling rule exceptions, to read increasingly robust and more challenging text.</p> <p>Because the English language is a morphophonemic language, students should also be receiving explicit instruction on how morphemes (smallest unit of meaning in a language like prefixes, suffixes, roots, and bases) can be used to understand word meaning across texts. This learning will exponentially improve vocabulary knowledge contributing to deeper text comprehension.</p>
Vocabulary	<p>Students should receive explicit instruction that focuses on word parts, and how the parts carry meaning. Examples include exercises and games that focus on morphology (meaning) and how morphology knowledge transfers to other words . An example includes the prefix “in”. If students understand that the meaning of the prefix is “not”, they understand that any root word becomes the opposite of the root word’s meaning (Examples: incorrect means not correct, invisible means not visible, and inability means does not have the ability).</p>
Fluency	<p>Fluency consists of three things: rate, accuracy, and expression. Expression, or prosody, includes timing, phrasing, emphasis, and intonation. As students continue to receive explicit reading instruction in all areas of Scarborough’s Reading Rope (Word Recognition and Language Comprehension that includes explicit instruction in vocabulary, background knowledge, language structure, verbal reasoning, and literacy knowledge), their fluency will improve.</p> <p>Activities that promote reading fluency include independent and shared reading, “scooping text” into natural breaks, Reader’s Theater, reading aloud by teacher and classroom guests, book clubs, audiobook listening, and fluency checklists.</p>

Strategy	Description
Comprehension	<p>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.</p> <p>All students (on, below, or above reading standards) should be engaging with rich and complex anchor text multiple times per week. Students should be provided with text-based questions to think about and answer as they are reading or text-based tasks that promote deeper learning (journaling, drawing, using agreed-upon code to annotate text) Students should be encouraged to support their thinking by utilizing information gleaned from text to support their thinking/reasoning.</p>
Writing	<p>Students are typically in the Conventional Writing Stage (ages 7-9) and/or the Proficient Writing Stage (ages 9-12). Instruction continues to focus on the connection between writing and reading. Students should be writing daily, much of which will be connected to their reading. Support students to make use of knowledge gained from anchor text in their writing with and without requiring direct text evidence.</p>

FOCUSED LEARNING INTERVENTIONS

For Grades 3-5 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 3-5 Literacy Readiness

Assessment	Purpose
Universal Screeners	Universal screeners are valid and reliable data collection tools and processes used to assess students' current level of performance in relation to grade- level benchmarks, identifying students who need intervention and those who do not. Because screening takes place multiple times per year with all students, screeners are typically designed to be easy, quick, and repeatable. In most cases, Prekindergarten students are not assessed using a screening tool until the end of their pre-K year/beginning of kindergarten year. All districts are required by law to assess students in the early grades multiple times per year with a universal screener.
Curriculum-Based Assessment	Use evidence from curriculum-based summative and formative assessments to work with students to set meaningful goals for growth and achievement.

Assessment	Purpose
Diagnostic Assessments	<p>Diagnostic Assessments are used to identify students' strengths and identify gaps in learning. Diagnostic assessments assess specific skills or components of reading such as phonological awareness, phonics skills, and fluency. The results of diagnostic assessments inform instruction and intervention and help teachers plan their lessons by identifying areas where students may need additional support or remediation. These assessments are not graded but help inform instruction. Diagnostic assessments can be formal standardized tests or informal measures such as criterion-referenced tests to measure and inform instructional next steps... Not all children need this kind of in-depth reading assessment, which is most important for struggling and at-risk readers.</p>
Formative Assessment	<p>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.</p>
Maryland Comprehensive Assessment Program: English Language Arts and Literacy	<p>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.</p>

LANGUAGE DEVELOPMENT SUPPORTS*For MLL Grades 3-5 Literacy Readiness*

Strategy	Description
Cross-Disciplinary Reading and Writing	<p>Encourage students to engage in reading and writing activities that connect across subjects, such as science, social studies, and math. By integrating reading comprehension and writing tasks with content from these subjects, students practice literacy in context and develop skills for both academic and career success. For example, after reading a passage on a science topic, students can write a brief summary, create an infographic, or answer open-ended questions using evidence from the text.</p> <p>For multilingual learners, provide scaffolding like sentence starters, graphic organizers, and opportunities for oral discussions before writing, supporting their literacy development across disciplines.</p>
Independent and Guided Reading with Diverse Texts	<p>Encourage students to read a variety of texts, including fiction, nonfiction, and informational texts. Support this by offering students choices in their reading materials, allowing them to explore topics of personal interest or relevance to their lives. Guided reading sessions can help students develop decoding skills, fluency, and comprehension strategies in small groups, tailored to their needs.</p> <p>For multilingual learners, use bilingual texts or texts with visuals that support vocabulary and comprehension. This approach not only builds literacy skills but also helps students engage with content that is meaningful to them, boosting motivation and career readiness.</p>
Use Suggested Supports from Instructional Materials	<p>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.</p>

INDIVIDUALIZED LEARNING SUPPORTS*For Grades 3-5 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 3-5 Literacy Readiness*

Strategy	Description
Literacy Engagement and Grade-Level Expectations	<p>Students are exposed to daily reading, writing, speaking, and listening instruction and activities that promote the life-long desire to utilize literacy skills to develop a sense of self, and make connections to the world around them.</p> <p>Students should be regularly exposed to all types of text, both informational and literary (50/50) on a variety of topics and literature. Students should be utilizing literary and informational text to solve problems and learn about concepts in literature as well as informational text in all content areas (social studies, science, and math).</p> <p>Students should be able to effectively and fluently read all text types, both digital and print, at the grade appropriate Lexile Level* (see Lexile.com - Lexile Tools - Grade Level Charts)</p>
Discussion and Collaboration Centered on Evidence	<p>Students work together in partners or small groups to engage effectively in a range of collaborative discussions with like and diverse partners on grade-level topics and texts, building on others' ideas and expressing their own clearly.</p> <p>Ask students to reflect on each other's thinking using evidence, as well as considering and challenging others' perspectives, supported by evidence. Explicitly teach the components of effective discussion (active listening, using thoughtful questioning). This can be accomplished through the use of discussion rubrics and fishbowl activities, modeling, and practice.</p>

Strategy	Description
Global Awareness & Cultural Competence	The ability to recognize similarities and differences in people from different cultures who represent diverse experiences and perspectives must learn and work together. Students learn about other perspectives and cultures through reading and listening to a wide range of literary and informational text appropriate to students' developmental stages. Students learn to effectively communicate with people of varied backgrounds.

Grades 3-5 CCR Strategies for Social Studies

As students progress through their educational journey, the need for a robust college and career readiness framework becomes increasingly vital. This chapter focuses on effective strategies for teaching social studies to students in grades 3 through 5, emphasizing the alignment of instruction with the [Maryland Social Studies Standards](#) and the [College, Career, and Civic Life \(C3\) Framework](#). These standards promote critical thinking, inquiry-based learning, and civic engagement, providing a comprehensive foundation for students to understand and navigate the complexities of society.

The strategies for grades 3 through 5 differ significantly from those used in kindergarten through 2nd grade, as they are designed to foster deeper analytical skills and independence. In the early grades, instructional approaches often center around building foundational knowledge and skills through hands-on activities, storytelling, and visual aids that engage young learners. In contrast, *the strategies for 3rd through 5th grades shift toward encouraging students to engage in more complex tasks, such as conducting independent research, analyzing primary sources, and participating in discussions about historical and contemporary issues.*

By embedding these strategies into daily instruction, educators can cultivate the essential skills and knowledge that students need to become informed and active participants in their communities and the global society. This chapter aims to provide educators with tools to engage students in meaningful learning experiences, enhancing their understanding of social studies concepts while preparing them for future academic and career pursuits. As we explore these strategies, we will highlight the role of inquiry, collaboration, and real-world connections in building a solid foundation for college and career readiness in social studies.

INSTRUCTIONAL PLANNING

For Grades 3-5 Social Studies Readiness

Strategy	Description
Mapping Local Communities	<p>Objective: Students will create a map of their local community, identifying key landmarks, geographic features, and public services that contribute to the functioning of the community</p> <p>Activity Details: Students will be provided with blank maps of their community or use Google Maps to observe the layout of their neighborhood. Students will mark important places such as schools, fire stations, parks, and government buildings on the map. They will then write a short paragraph explaining how these places contribute to the well-being of the community.</p> <p>Skills Developed: Geographic literacy, civic awareness, critical thinking.</p> <p>Standards Alignment: 3.0 Geography</p>

Strategy	Description
<p>Inquiry-Based Research on Historical Figures</p>	<p>Objective: Students will research a key historical figure relevant to Maryland or U.S. history and present their findings to the class, focusing on the individual's contributions and impact on society</p> <p>Activity Details: Students will choose a historical figure (e.g., Harriet Tubman, Frederick Douglass, or Clara Barton) and use primary and secondary sources to gather information about the figure's life, achievements, and challenges. Students will compile their findings in a short report or visual presentation, including details on the figure's historical context, key contributions, and significance. Presentations will be shared with the class to foster discussion and peer feedback</p> <p>Skills Developed: Research and inquiry skills, critical thinking, oral and written communication</p> <p>Standards Alignment: 5.0 History; 6.0 Skills and Processes</p>
<p>Civic Engagement Simulation (Voting in a Classroom Election)</p>	<p>Objective: Students will participate in a simulated classroom election to understand the voting process and the responsibilities of citizenship.</p> <p>Activity Details: Students will discuss the role of elections in a democracy and the importance of voting. The class will hold an election on a simple issue (e.g., choosing a class reward or deciding a classroom rule). Students will nominate candidates, create simple campaigns, and then vote using ballots. After the election, students will reflect on the importance of voting and civic participation</p> <p>Skills Developed: Civic literacy, decision making, collaboration.</p> <p>Standards Alignment: 1.0 Civics; 6.0 Skills and Processes</p>

Strategy	Description
Question Formulation Technique (QFT)	<p>Objective: Students will develop their own research questions about a historical event or topic, using the Question Formulation Technique (QFT) to guide inquiry and exploration</p> <p>Activity Details: Introduce the topic (e.g., The American Revolution, Civil Rights Movement, or Maryland's role in the Underground Railroad). Students will use the QFT process to brainstorm questions about the topic. They will first create a list of questions without worrying about the quality or structure. As a class, students will categorize their questions into open- and closed-ended questions, discussing the differences between the two. Students will then choose a few questions to refine and use for deeper research on the topic. Groups will conduct research based on their questions and present their findings in small groups or to the class.</p> <p>Skills Developed: Inquiry and critical thinking, collaboration, research and analysis.</p> <p>Standards Alignment: 6.0 Skills and Processes</p>

FOCUSED LEARNING INTERVENTIONS

For Grades 3-5 Social Studies Readiness

Intervention	Objective
Small Group Instruction	Break students into small groups for guided reading sessions using primary and secondary sources. Focus on decoding skills, context clues, and reading comprehension strategies relevant to historical content.
Graphic Organizers for Understanding Complex Historical Events	Use graphic organizers like timelines, cause-and-effect charts, and sequence maps to help students visually organize information about key historical events, such as the American Revolution or Civil War.
Frequent Formative Assessments	Use quick formative assessments like exit tickets, quizzes, or concept maps at the end of each lesson. These tools provide immediate feedback on student understanding and help identify areas where students may need additional support.

ASSESSMENT AND MONITORING*For Grades 3-5 Social Studies Readiness*

Assessment	Purpose
Student Portfolios	<p>A collection of students' work (essays, projects, quizzes) over a unit or grading period that demonstrates growth and mastery of social studies skills and knowledge. Portfolios provide a comprehensive view of a student's progress over time and assess their overall understanding of key concepts.</p> <p>Data Monitoring: Teachers can use quantitative data from assessments (e.g., rubrics for essays or projects, scores on quizzes) and/or qualitative data (e.g., holistic writing, teacher observations or use of formative assessments) as metrics to inform principals whether students are falling behind, meeting standards or are advanced.</p>
Interactive Notebooks	<p>Students maintain interactive notebooks where they record notes, complete graphic organizers, and reflect on their learning over time. These notebooks provide a space for continuous assessment and monitoring of student progress in social studies skills and concepts.</p>
Checklists and Progress Monitoring Tools	<p>Teachers maintain checklists that track the completion of specific tasks or learning goals for individual students throughout the unit. These checklists ensure all students are meeting learning objectives and identify those who need additional support in specific areas.</p>
KWL Charts (Know, Want to Know, Learned)	<p>At the start of a unit, students list what they already know and what they want to know. After the unit, they complete the chart by reflecting on what they learned. This chart assesses prior knowledge, track student inquiry, and reflect on learning progress.</p>
Classroom Participation (Qualitative Tracking)	<p>To assess students' engagement with social studies content and their ability to articulate ideas, which helps determine if they are actively processing and internalizing concepts. Participation indicates both comprehension and confidence in expressing knowledge.</p> <p>Data Monitoring: Keep a participation log or checklist, noting how often each student contributes to discussions, asks questions, or engages in class activities. Teachers can assign a participation score (e.g., on a 1-5 scale) based on the quality and frequency of contributions. Over time, trends in participation can reveal whether a student is excelling or falling behind in engagement.</p>

Assessment	Purpose
<p>Written Work (Qualitative Tracking)</p>	<p>To evaluate students' ability to organize thoughts, use evidence, and engage in critical thinking through written communication. Well-written work shows a deeper understanding of social studies topics, while poor quality writing can signal difficulties in grasping or articulating concepts</p> <p>Data Monitoring: Evaluate students' written assignments (essays, reflections, reports) using a rubric that assesses structure, coherence, use of evidence, and critical thinking. Keep records of scores for each assignment to track improvements or consistent issues. Comparing earlier assignments with more recent ones can highlight growth or areas needing support.</p>
<p>Classroom Participation (Qualitative Tracking)</p>	<p>To assess students' engagement with social studies content and their ability to articulate ideas, which helps determine if they are actively processing and internalizing concepts. Participation indicates both comprehension and confidence in expressing knowledge.</p> <p>Data Monitoring: Keep a participation log or checklist, noting how often each student contributes to discussions, asks questions, or engages in class activities. Teachers can assign a participation score (e.g., on a 1-5 scale) based on the quality and frequency of contributions. Over time, trends in participation can reveal whether a student is excelling or falling behind in engagement.</p>
<p>Progress Monitoring with Rubrics (Quantitative Tracking)</p>	<p>To give structured feedback on specific skills such as map reading, document analysis, or understanding civic processes. Rubrics help track individual growth and provide students with clear expectations for improvement.</p> <p>Data Monitoring: Use detailed rubrics aligned to social studies standards for each assignment, project, or activity. Evaluate students based on criteria such as critical thinking, content knowledge, and communication skills. Store rubric scores and track growth over time, focusing on specific skill areas where students need improvement.</p>

ADVANCED ACADEMICS

For Grades 3-5 Social Studies Readiness

Advanced Strategy	Description
Complex Mapping Activities	Challenge students to create detailed maps that explore geographic and political changes over time, building spatial awareness and critical thinking
Peer Teaching Opportunities	Allow advanced students to teach a concept or lead a small discussion, reinforcing their understanding and promoting leadership in learning
Differentiated Reading Assignments	Provide advanced students with more complex texts related to social studies content, promoting deeper comprehension and advanced literacy skills

LANGUAGE DEVELOPMENT SUPPORTS

For MLL Grade 3-5 Social Studies Readiness

Strategy	Description
Vocabulary Pre-Teaching	Introduce key social studies vocabulary before lessons, giving multilingual learners the language foundation they need to engage with content
Visual Aids and Graphic Organizers	Use visuals like timelines, maps, and diagrams to illustrate complex concepts, supporting multilingual learners in understanding and organizing information
Modeling Academic Language	Explicitly model the use of academic language in discussions and writing, helping students understand how to apply vocabulary and structure in context
Inquiry-Based Learning	<p>Promote critical thinking and problem-solving by engaging students in inquiry-based learning. Encourage them to ask questions, gather evidence, and make connections to real-world issues through historical, geographic, and civic content. This approach allows students to analyze primary and secondary sources, interpret data, and develop arguments based on evidence.</p> <p>For multilingual learners, provide graphic organizers, peer discussions, and vocabulary support to help them engage deeply with complex concepts and language in context. This prepares them for critical thinking required in both college and the workforce.</p>

Strategy	Description
Project-Based Learning	Implement project-based learning to help students apply social studies concepts in meaningful, real-world contexts. For example, students can work on projects related to community issues, historical events, or global challenges, presenting their findings in different formats (posters, reports, presentations). This strategy not only enhances literacy and research skills but also fosters collaboration and communication—skills highly valued in both academic and professional settings. For multilingual learners, provide opportunities for collaboration with peers, allowing them to share and learn from one another’s perspectives while practicing language skills in context.
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 3-5 Social Studies Readiness

Strategy	Description
Chunking of Content	Break down lessons into smaller, manageable segments, reducing cognitive load and helping students focus on one idea at a time
Visual and Auditory Aids	Use videos, images, and audio recordings to supplement textual information, making social studies content more accessible to students with different learning styles
Task Checklists	Provide checklists for multi-step tasks, helping students with executive function challenges stay organized and complete assignments in a structured manner

BUILDING A CAREER IDENTITY*For Grades 3-5 Social Studies Readiness*

Strategy	Description
Link Economic Concepts to Career Exploration	Teach economic principles such as supply and demand, entrepreneurship, and trade by having students create business plans or explore how careers in economics impact local and global markets.
Historical Career Comparisons	Compare modern-day careers to historical occupations, allowing students to explore how professions have evolved and how the skills needed for success in different careers have changed over time
Career Exploration Through Geography	Use geographic studies to explore careers in fields like environmental science, urban planning, and international relations, helping students understand how different professions interact with the physical and political landscape
Government Processes Role Playing	Engage students in mock elections or assign them roles in a simulated government, such as mayor or city council member, to give them a firsthand look at careers in leadership and public service.
Entrepreneurship in Historical Context	Teach students about entrepreneurship by examining historical trade, exploration, and innovation, and then have them create their own business ideas, linking social studies with modern economic careers

Grades 3-5 CCR Strategies for Science

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

- Provide in public schools an instructional program in science each year for all students in grades prekindergarten—8; and
- Offer in public schools a science program in grades 9—12 which enables students to meet graduation requirements and to select science electives.

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

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

INSTRUCTIONAL PLANNING

For Grades 3-5 Science Readiness

Strategy	Description
Use Student Questions	Elicit, record, and leverage children’s scientific (testable) questions throughout the learning process to help align their interests and experience to learning. Have children perform investigations or problem-solve around questions or problems they identify based on their interests.
Hands-on Activities	Facilitate students to collaboratively plan and carry out simple investigations using fair tests to produce evidence, as well as develop, use, and/or revise models to represent relationships, to make predictions, test, and/or describe solutions. Students also make observations and collect measurements to serve as evidence for an explanation.

Strategy	Description
Real-world Connections (Phenomena or Storylines)	Students use systems thinking, building and revising simple models and using models to represent events and design solutions to describe or predict phenomena, as well as use their prior knowledge to describe problems, patterns, and evidence. 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.
Collaborative Learning	<p>Group children in a variety of ways during investigations and discussions so they can practice teamwork and collaborative problem-solving.</p> <p>Students obtain, combine and compare information from books, other media and classroom investigations to identify patterns and communicate scientific and/or technical information orally and/or in written formats, including representing information in various forms such as graphical displays, tables, diagrams, and charts. Students compare data collected by different groups to discuss similarities and differences in their findings</p>
Productive Student Discourse (Talk)	Students make their thinking visible through talk, explanation, and argument by building on experiences to use evidence in the analysis of data and constructing explanations that specify variables that describe phenomena and in designing multiple solutions to problems as well as critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world to help them learn how to constructively resolve conflicts.

FOCUSED LEARNING INTERVENTIONS*For Grades 3-5 Science Readiness*

Intervention	Objective
Inclusive Science Classroom Culture	<p>An inclusive science classroom culture supports equitable access to science programming by addressing bias and perceptions about science, scientists, and scientific ability.</p> <p><u>Provide</u> varied and grade-appropriate opportunities to explore and challenge perceptions about science, scientists, and scientific ability.</p> <p><u>Engage</u> students with diverse, empowering examples of scientific accomplishment that challenge adverse perceptions, storylines, and practices.</p> <p><u>Facilitate</u> a variety of grade-appropriate learning and reflection opportunities that cultivate students' positive science identities.</p>
Student Engagement	<p>Provide student choice or autonomy related to asking questions and hands-on activities for the sensemaking of scientific ideas.</p> <p>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.</p> <p>Create opportunities for individual and collective reflection that promote positive student scientific identities, collaboration, personal coping skills, and feedback.</p>
Varied Modes of Expression	<p>Communicate directions and information in a variety of formats (e.g., verbal, visual, gestured) and allow students to express their thinking through a variety of modes (e.g., verbal, drawn, gestured, written, digital).</p>
Visual Aids and Manipulatives	<p>Pictures, diagrams, charts, videos, models, simple maps, interactive tools, and safe materials as manipulatives can help students interact, explore, and investigate concepts.</p>

ASSESSMENT AND MONITORING*For Grades 3-5 Science Readiness*

Assessment	Purpose
Three-Dimensional Assessments and Feedback	Assessing students in the Maryland NGSS requires three-dimensional assessments, which include disciplinary core ideas, science and engineering practices, and crosscutting concepts. The Maryland Integrated Science Assessment (MISA) given in fifth grade is an example of a three-dimensional assessment that identifies student proficiency in this grade band of 3 rd through 5 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. Evidence about students' three-dimensional understanding can be collected using science notebooks/journals, observational notes, formal assessment tasks, individual interviews, checklists, rubrics.
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.
Checklists/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 forces and interactions, processes that shape the Earth, and matter and energy in organisms and ecosystems.

Assessment	Purpose
Feedback	<p>Student understanding of science concepts is an iterative process that builds over time with the support of self, peer, and teacher feedback that is focused on three-dimensional learning targets. Feedback through notebooks/journals, observational notes, formal assessment tasks, individual interviews, checklists, and rubrics can be regularly incorporated, along with time for students to adjust their thinking and work. Teachers should 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.</p>

LANGUAGE DEVELOPMENT SUPPORTS

For MLL Grades 3-5 Science Readiness

Strategy	Description
Hands-On Investigations and Investigations	<p>Foster questioning and critical thinking by engaging students in hands-on science investigations. This strategy helps students understand scientific concepts through direct experience, which can be particularly beneficial for multilingual learners. Use visual aids, interactive simulations, and manipulatives to support understanding. Encourage students to make observations, record data in a variety of ways, and analyze results in collaborative groups, promoting both scientific literacy and language development. This approach cultivates problem-solving, teamwork, and analytical thinking, key skills for both academic and career success in STEM fields.</p>
Cross-Disciplinary Projects with Real World Applications	<p>Connect science lessons to real-world scenarios and interdisciplinary projects. For example, students can explore environmental sustainability through projects that integrate science, mathematics, and social studies. This strategy not only builds scientific literacy but also helps students see how science connects to other areas of life and future careers. Encourage students to research, present, and collaborate on solutions to real-world problems, thereby fostering critical thinking, communication, and collaboration—skills that are essential for both college and career readiness.</p> <p>For multilingual learners, use scaffolded vocabulary instruction and visual supports to ensure understanding and active participation.</p>

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.

BUILDING A CAREER IDENTITY

For Grades 3-5 Science Readiness

Strategy	Description
Hands-On Investigations and Investigations	<p>Inventor's Workshop - challenge students to identify a problem in their daily lives and design a solution, simulating the work of inventors and engineers utilizing the scientific method –</p> <p>Question Research Make a Guess (Hypothesis) Test Your Guess (Experiment) Record What Happened (Observations) What Did You Learn? (Conclusion) Share What You Learned</p>
Cross-Disciplinary Projects with Real World Applications	<p>Science Fair (with a Twist) organize an in class science fair -- students present project(s) and explain which scientific career their project relates to and why it interests them. Example: Robotics Engineer</p> <p>Skills: Programming, mechanical engineering, creativity</p> <p>Tools: Programming software, 3D printers, electronic components</p> <p>Salary Range: \$70,000 - \$150,000 per year</p> <p>Example: "Building and programming my robot made me realize I might want to be a robotics engineer when I grow up. They use computer programming and special tools to build robots that can search and rescue where people need help and a robot can take more risks to save lives!"</p>
Cross-Disciplinary Projects with Real World Applications	<p>Scientific Leadership Role-Playing –</p> <p>Activity: Simulate a scientific research team or a science-focused government agency.</p> <p>Career Connection: Chief Scientist at a Government Agency</p> <p>Example: Students take on roles in a mock space exploration agency, making decisions about resource allocation, research priorities, and public communication of scientific findings.</p> <p>Economic Concepts: Resources, allocation, public policy, communication</p>

Strategy	Description
<p>Cross-Disciplinary Projects with Real World Applications</p>	<p>Innovation and Entrepreneurship in Science -</p> <p>Activity: Examine historical scientific innovations and their economic impact.</p> <p>Career Connection: Research and Development Scientist</p> <p>Example: Students study the development of penicillin and its impact on public health and the pharmaceutical industry. Brainstorm their own innovative solutions to current health challenges.</p> <p>Economic Concepts: Innovation, intellectual property, markets of medicine</p>

Grades 3-5 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 [Universal Design for Learning \(UDL\)](#) framework involves multiple means of engagement, representation, and expression. When used appropriately, this framework helps accommodate diverse learning preferences and needs, ensuring all students have equal opportunities to access and engage with library and digital resources. To learn more about planning for the effective integration of digital tools, please review these additional resources:

- [Integrating Technology into a Lesson: Considerations for Teachers](#)
- [Maryland Digital Learning Standards for Students](#)
- [Maryland Digital Learning Standards for Educators](#)
- [Lesson and Program Planning: School Library Media Considerations](#)
- [Maryland School Library Media Standards for Learners, Librarians, and Libraries](#)

SCHOOL LIBRARY MEDIA

School library media (SLM) programs play a critical role in supporting learners in grades 3-5 by promoting both academic achievement and a lifelong love of reading. These programs implement thoughtful collection development plans that include print, audio, and digital materials to address a wide range of needs, supporting both informational and recreational reading. Collection development remains focused on prioritizing a diverse, culturally relevant, and age-appropriate selection of both fiction and non-fiction texts. For grades 3-5, the collection expands to include literature that supports independent reading and fosters an understanding of reading for purpose. As students increasingly engage in research and inquiry, the materials reflect and support these evolving reading practices.

Through blended learning strategies, school library media specialists (SLMS) deliver personalized, engaging content that meets individual students' needs. Collaborative efforts between teachers and SLMS enhance instructional effectiveness, with SLMS providing guidance in establishing classroom-based library centers tailored to students' needs. A key component of these programs is digital literacy instruction, which equips students with essential skills in online safety, ethical use of technology, and managing screen time.

DIGITAL LEARNING

At this stage, digital learning helps students explore new concepts and build on their foundational skills in more depth. Digital content, including interactive lessons and adaptive learning platforms, allows for individualized pacing, critical for helping students address their specific needs. Just-in-time supports, such as videos or interactive simulations, allow students to engage with grade-level content while addressing gaps in prerequisite skills (Bauld, 2021; Myers, 2021). Digital learning also fosters independent learning skills, as students begin to navigate digital resources more autonomously. Students in third through fifth-grade benefit from a balance of digital and hands-on activities that promote creativity, problem-solving, and collaboration.

SCREEN TIME RECOMMENDATION: K-5 (Ages 5-10)

The recommendation for children aged 5 and up is to shift focus from a strict time limit to managing the quality of screen use. Screen time should ideally be limited to about one to two hours a day. Monitoring the type of content is crucial—interactive educational activities are preferable over passive viewing, and excessive recreational screen use should be limited to avoid negative impacts on behavior and sleep (American Academy of Child and Adolescent Psychiatry, 2024; Berthold, 2022; Ruder, 2019).

SCHOOL LIBRARY MEDIA STRATEGIES

For Grades 3-5 Readiness

Strategy	Description
Blended Learning Strategies	As students in grades 3-5 develop greater independence as readers and learners, SLMS and teachers can implement a blended learning approach. Blended learning involves utilizing a variety of formats and modalities to address diverse learning needs. A lesson may incorporate small group instruction with a teacher, visual media such as videos, independent research, and a collaborative, hands-on project, providing a comprehensive and engaging learning experience. (Tucker, Wycoff, & Green, 2017)
Collaboration and Communication	Students in grades 3-5 are developing as independent readers and critical thinkers, actively engaging in the inquiry process. Through the research process, students inquire, evaluate resources, gather information, and collaborate using tools such as Google Docs. They present their findings in various formats, including traditional non-digital methods and digital tools like Google Slides, demonstrating their growing ability to communicate effectively across different platforms. (AASL, 2018)

Strategy	Description
Digital Literacy and Citizenship Skills	<p>At grades 3-5, key digital literacy skills are essential for fostering students' ability to navigate and use technology effectively. These skills include online research and information evaluation, introduction to collaboration tools, basic typing and word processing, and presentation skills. Students are introduced to foundational coding skills and computational thinking to develop problem-solving abilities, and an understanding of how digital systems operate.</p> <p>Digital citizenship skills emphasize responsible online behavior, respect for intellectual property, being mindful of online privacy, and practicing safe interactions on digital platforms. Crucial online safety and security skills involve recognizing the importance of protecting personal information and avoiding online scams (International Society for Technology in Education, n.d.).</p>

DIGITAL LEARNING STRATEGIES

For Grades 3-5 Readiness

Strategy	Description
Interactive Math Manipulatives	<p>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 balance concrete manipulatives with students at this developmental age and provide exposure to virtual tools they will encounter on their online assessments.</p>
Virtual High-Dosage Tutoring	<p>Studies have found that small-group, high-dosage tutoring sessions—3 or more times per week—are especially effective at improving literacy and numeracy outcomes at these early grade levels (Robinson et al., 2021).</p>
Adaptive and Personalized Learning Software	<p>Tailor educational experiences to students' learning needs and provide appropriate challenges and supports to enhance learning outcomes. This includes using technology to provide differentiated instruction, including adaptive learning software that adjusts to a student's individual learning pace and style.</p>
Virtual Fieldtrips	<p>Provide virtual experiences, when appropriate, that can accommodate different learning preferences. These experiences can provide opportunities for students to build background knowledge.</p>

Strategy	Description
Acceleration Strategies with Just-in-Time Supports	Use interactive content and assessment tools to provide students with timely feedback or allow teachers to check for understanding in real time. Instead of traditional remediation, providing tailored support just before students engage with a complex grade-level topic. For instance, if students are about to learn a challenging literary text, teachers can offer scaffolding activities—such as vocabulary previews or contextual background—to help bridge any skill gaps they may have while ensuring the students still engage with rigorous grade-level material.
Knowledge Rich Curricula with Scaffolds	Use digital tools such as learning management systems to organize and assign support materials to students. Providing knowledge-rich content and scaffolding—such as vocabulary support or reading guides—ensures that students can access grade-level material, avoiding the setbacks caused by remedial approaches (Myers, 2021).

DIGITAL LANGUAGE DEVELOPMENT SUPPORTS

For MLL Grades 3-5 Readiness

Strategy	Description
Interactive Digital Tools and Platforms	Incorporate interactive digital tools like educational apps, websites, and virtual labs to engage students in both independent and collaborative learning. Platforms such as Google Classroom, Padlet, or educational simulations can help students enhance their digital literacy skills while learning core content. Provide opportunities for students to create digital presentations, blogs, or videos to communicate their understanding. This fosters not only technological fluency but also critical thinking, creativity, and communication skills—skills essential for success in future careers and postsecondary education. Ensure that multilingual learners have access to translation tools or bilingual resources to support language development alongside digital literacy.

Strategy	Description
<p>Digital Citizenship and Online Research Skills</p>	<p>Teach students the fundamentals of digital citizenship, including online safety, responsible use of technology, and understanding digital footprints. In addition, build students' skills in online research by guiding them through the process of identifying credible sources, evaluating information, and properly citing references. These skills are crucial for students' academic success and will prepare them for research-based tasks in higher education and the workforce. Use a blend of direct instruction, group activities, and digital simulations to reinforce these skills.</p> <p>For multilingual learners, provide instruction in multiple languages and visual cues to ensure comprehension and participation in digital literacy activities.</p>

Advanced Academics for All Subject Areas: Grade 3-5

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

Advanced Strategy: Tiered Assignments

These activities could provide accessible instructional options that ensures all students receive an appropriately challenging education while grappling the same content and grade level standards. Below you will see examples of different tiers for assignments. The intention is to demonstrate a progression of assignments. These activities are not substitutions for current curriculum and instruction practices. All students, especially gifted and advanced students, should have exposure to the most challenging tiers which should be concept based in nature.

Example 1

- Tier 1 – Select a fable and summarize possible morals embedded in the story.
- Tier 2 – Compare and analyze several fables to determine which has the greatest connection to today's world.
- Tier 3 – Create a fable that has purpose and meaning to today's elementary school student.

Example 2

- Tier 1 – Complete word problems related to converting like measurement units within a given measurement system.
- Tier 2 – Decide and justify, which was more valuable for society to progress, knowing how to convert time units (i.e. minutes to days) or knowing how to convert length units of measure (i.e. centimeters to meters). Please provide at least one relevant example.
- Tier 3 – Create a picture book for younger students that explains how to convert like measurement units within a given measurement system and why or how this could be helpful to daily life with relevant examples.

Advanced Strategy: Levelled Questioning

To encourage deep understanding all students, especially gifted and advanced students, should be encouraged to ask and answer various levels of questions. Below you will see different levels of questions with examples. The intention is to demonstrate a progression of questions. These questions are not substitutions for current curriculum and instruction practices. Advanced students should be able to spend more cognitive time asking and answering higher-order thinking questions beyond basic recall. These questions are open-ended, meaning there is not one clear answer.

Basic/Recall

- What is the product of 9×8 ?
- What are the first 10 Amendments to the US Constitution called?
- Who is the main character in *The Wild Robot* by Peter Brown?
- Name an animal a part of a particular ecosystem.

Analytical/Elaboration

- What strategy would you use to solve a particular problem, why?
- How did slavery shape Maryland as a Colony?
- After developing a graph to represent seasonal weather changes, how might a polar bear describe the typical weather conditions described in the graphical display?
- What makes two characters in two different books similar and what makes them different?

Evaluate/Create

- Analyze another student's problem-solving strategy and process. Explain if it is the most efficient strategy for the given problem.
- Justify whether more harm than good has been caused when reviewing Maryland's economic development and human impact on the environment.
- What experiment could you make to demonstrate or test your learning of Ecosystems?
- How could you explain this information in the form of a poem or short story for younger students?

Advanced Strategy: Social Emotional Learning

Dr. Derek Cavilla established a framework for developing gifted learners social emotional learning skills entitled Cavilla's Taxonomy of Affective Curriculum for Gifted Learners. This framework provides information to help gifted learners achieve their potential through social emotional learning. Gifted children learn how to work through challenges and perceived failures as well as set manageable and meaningful goals. Below contains additional information at specific grade band levels as well as direct information to Cavilla's work.

2-4: After students accept their roles within the school community environment, they now can move deeper into managing their behaviors. Self-regulation, self-esteem, and empathy are integral parts to the framework at this level.

Building College and Career Identities in Grades 3-5

Overview:

In Grades 3-5, students begin developing a more structured understanding of careers, connecting academic subjects to real-world applications. This period marks the start of deeper self-awareness, academic skill-building, and an increased focus on financial literacy. By integrating collaborative, hands-on learning experiences, students will further explore career options, build foundational academic skills, and grow in financial literacy.

Goals:

- Foster career awareness by connecting academic learning to real-world careers.
- Strengthen academic skills, particularly in literacy and math, as they relate to career readiness.
- Begin formal financial literacy education, teaching students the value of saving, budgeting, and smart decision-making.
- Encourage students to reflect on their strengths, interests, and how these relate to potential career paths.
- Support collaborative learning and problem-solving, emphasizing teamwork and critical thinking as key CCR skills.

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.

Career Exploration Projects

STEM and Hands-On Activities

- **STEM Challenges:** Engage students in hands-on STEM challenges such as building simple machines, coding basic programs, or conducting science experiments that connect to careers like engineering or medicine.
- **Math in Real-World Applications:** Focus on math as it relates to careers such as architecture, finance, and engineering. Use geometry and measurement activities that require students to plan a structure or measure distances in their schoolyard, helping them visualize math in action.

Career Role Models and Research

- **Biographies and Career Research:** Encourage students to read biographies of professionals or historical figures, highlighting the career paths of diverse role models. Students can then present their findings or write reports on how they might follow a similar path.
- **Career Identity Building Projects:** Assign projects where students research a career they are interested in and create a visual presentation or report on what that career involves, what skills are needed, and how their own interests align with it.

Assessing and Monitoring Career Readiness in Grades 3-5

Assessment Tools

- **Performance-Based Assessments:** Use project-based assessments that require students to apply their academic skills in real-world contexts, such as designing a budget, writing a career report, or solving a community problem. This allows for evaluation of both academic and career-related competencies.
- **Portfolios:** Collect student work in portfolios that showcase their career exploration projects, financial literacy activities, and academic progress. These portfolios can be used to monitor long-term development and help students reflect on their learning journey.
- **Checklists and Rubrics:** Use rubrics that assess students on a range of skills including collaboration, problem-solving, and financial literacy understanding. Checklists can help monitor progress in specific areas like budgeting or STEM skills.

Advanced Academic Strategy: Building a Career Readiness Identity

Advanced Career Research Projects: For advanced learners, provide opportunities to conduct in-depth research on a career of their choice. These projects could include interviews with professionals, building a model of a workspace (e.g., an architect's office), or writing a detailed report on what it takes to succeed in that career.

Advanced Financial Literacy: Introduce more complex financial literacy concepts such as interest, saving for long-term goals, or even running a small business (e.g., a classroom store). Encourage advanced students to manage a classroom budget or take on leadership roles in financial decision-making activities.

Leadership Driven CCR Strategies

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

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

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

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

HIGH QUALITY INSTRUCTIONAL MATERIALS

- Do adopted instructional materials meet the standard for High-Quality in Maryland?
- Do all academic staff members, including principals, receive ongoing professional learning on strong implementation of adopted High-Quality Instructional Materials (HQIM)? Tailoring scaffolds and support with the HQIM?
- Are school schedules built with enough time for implementation of HQIM?
- Are school schedules built so that students who need additional supports and intervention are able to receive those supports while still engaging in all Tier 1 lessons?

Mathematics: Leadership Driven Strategies for Building College and Career Readiness

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

CCR Strategies in Mathematics:

- What specific strategies and practices are you implementing to ensure students achieve proficiency/CCR Standards in mathematics?
- How are you prioritizing and supporting teachers to use formative assessments consistently to monitor and respond to evident student understandings and misconceptions?

Student progress toward the CCR Standard:

- How is your local education agency addressing the needs of students who are not meeting proficiency and/or CCR standards in math?
- How are you identifying and differentiating support for students?
- When are students identified?
- Who has access to the data?
- How is the data analyzed?
- What technical assistance support is available to help all educators understand and respond to the data that is available?
- How are students, families, and teachers informed of next steps towards meeting the CCR standard and what it means to meet the standard?

Mathematics Interventions:

- What targeted intervention or enrichment strategies have proven most effective in improving proficiency or CCR outcomes for students struggling in mathematics?
- How are special educators and multilingual teachers provided opportunities to participate in professional learning opportunities about best practices for supporting students in mathematics?
- What structures and systems are in place with scheduling to ensure special educators and multilingual learner teachers have opportunities to co-plan and co-teach mathematics in all grade levels?

Additional Questions to Consider:

- How is support for mathematics integrated into other courses?
- How can educators in your subject area better integrate real-world applications and career connections into their daily instruction to enhance CCR?
- How are you leveraging your LEA's Comprehensive Math Plan to support students in meeting the math mastery component of the CCR Standard?
- What is your Professional Learning structure for school-based and central office staff to ensure math instruction is aligned to evidence-based best practices?

- Classroom practices that encourage and support students to explore their own interests through inquiry, research, and projects; allowing them to demonstrate mastery and share their learning in a variety of ways.
- Example: Students and teachers work together to create a learning agreement, that includes:
 - A student-centered goal for learning
 - A reflection journal of learning processes and experiences
 - A personalized learning schedule guided by students' pace and learning tasks.
 - Rubrics and expectations are established with student input.

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

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

Student Progress Toward the CCR Standard

- What specific strategies and practices are you implementing to ensure students achieve proficiency/CCR Standards in social studies?
- How are you prioritizing and supporting teachers to use formative assessments consistently to monitor and respond to evident student understandings and misconceptions?
- What targeted intervention or enrichment strategies have proven most effective in improving proficiency or CCR outcomes for students struggling in social studies?
- How are special educators and multilingual teachers provided opportunities to participate in professional learning opportunities about best practices for supporting students in social studies?
- What structures and systems are in place with scheduling to ensure special educators and multilingual learner teachers have opportunities to co-plan and co-teach social studies in all grade levels?
- How is support for social studies integrated into other courses?
- How can educators in your subject area better integrate real-world applications and career connections into their daily instruction to enhance CCR?
- What is your Professional Learning structure for school-based and central office staff
- to ensure social studies instruction is aligned to evidence-based best practices?

Science: Leadership Driven Strategies for Building College and Career Readiness

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

- Access to Science Instruction:
- Are opportunities for all students to adequately learn science provided in all the elementary grades?
- Are there systematic barriers that might prevent certain student groups access or resources needed for quality science instruction?
- Are student's math courses or progress limiting their access to science courses, like chemistry, physics, dual enrollment or AP/IB courses?
- Is the science curriculum being used in the LEA incorporating contributions from scientists of various backgrounds, culturally relevant, and accessible to all students?
- Are there student pathways or tracks in the LEA which limit student's access to science courses that might be foundational to pursuing science in college or as a career?

Professional Learning:

- Are science teachers provided professional learning, on differentiated instruction, culturally responsive teaching, and data analysis with an equity lens to ensure they can effectively support all students?
- Are science teachers, including elementary science teachers, provided professional learning related to the shifts of the Maryland Next Generation Science Standards (NGSS) to promote a real-world, student centered, inquiry-based learning environment in the science classroom?

Community Engagement

- Are families and communities engaged in the science learning process, recognizing their knowledge and contributions to highlight overlooked issues and inform equitable practices?
- Are there outreach programs to engage historically underrepresented students, families, and communities in the importance of science instruction and possible college majors or careers related to science?

Assessment System

- What assessment methods or tools are being used to measure students' progress in science, beyond standardized testing?
- How can teachers regularly assess all student's progress in science to identify areas of need?
- Based on data collected, what strategies are in place to address identified areas of need in the areas of science and engineering practices, disciplinary core ideas, or crosscutting concepts?

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

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

System Building Questions:

- **Accessibility:** How can we ensure that all students, regardless of their socioeconomic background, have access to high-quality digital learning resources?
- **Equity:** How can we use digital learning to address equity gaps and provide personalized support to students who may be struggling?
- **Integration:** How can we seamlessly and thoughtfully integrate digital learning into our existing curriculum and instructional practices to support and enhance teaching and learning?
- **Professional Development:** What professional development opportunities are needed to equip educators with the skills to effectively and purposely integrate digital tools in the classroom to support and enhance instruction (appropriate to each grade level)?

Intervention Needs Questions:

- **Personalized Learning:** How can digital learning tools be used to provide personalized instruction and support to students who need additional help?
- **Adaptive Learning:** Can adaptive learning technologies help identify and address students' individual learning needs in real-time?
- **Data-Driven Insights:** How can data collected from digital learning tools be used to inform our instructional decisions and identify students who may need targeted interventions or enrichment activities?
- **Active Engagement:** How can we use digital learning to increase student engagement and motivation, especially for students who may be struggling?

Additional Considerations:

- **Student Agency:** How can digital learning tools empower students to take ownership of their learning and develop critical thinking skills?
- **Digital Literacy:** What digital literacy skills should students develop in each grade to ensure they are equipped to use technology effectively, safely, and responsibly?
- **Parental Involvement:** How can we involve parents and caregivers in their child's digital learning experience and ensure they understand the benefits of using technology for education?

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

System Building Questions:

- **Collaboration:** How can and are School Library Media Specialists (SLMS) collaborating with classroom teachers to provide integrated learning experiences?
- **Curriculum Alignment:** How can SLMS ensure their resources and programs align with the school's curriculum and learning objectives?
- **Professional Development:** What professional development opportunities can be provided to SLMS to equip them with the skills to support classroom teachers and students? How can I leverage the expertise of my SLMS to provide professional learning opportunities to classroom teachers?

Intervention Needs Questions:

- Targeted Support: How can SLMS provide targeted support to students who may be struggling in literacy or other areas?
- Literacy Development: What literacy resources and programs can SLMC offer to promote literacy development?
- Digital Literacy: How can SLMC support the development of digital literacy skills in young learners?
- Research Skills: How can SLMS teach students essential research skills at an early age? What skills should they be teaching students as they continue to develop?

Additional Considerations:

- Inclusive Learning: How can SLMC create inclusive spaces that support the diverse needs of all students?
- Parent Engagement: How can SLMC involve parents and caregivers in their child's learning experience?
- Community Partnerships: How can SLMC partner with community organizations to provide additional resources and support to students?

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

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

Additional Recommendations: Front-Loading Talent Development Programming

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

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

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

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

Additional Recommendations: Enrichment Outside of Traditional School Time

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

Additional Recommendations: Cluster Grouping

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

Additional Recommendations: Offer a Continuum of Advanced Learner Services

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

Elementary (PreK-5)

- Level 1 – Talent Development Front-loading to all students in a classroom and grade level.
- Level 2 – Specific students who have demonstrated potential but do not currently have all criteria to enter gifted programs are provided additional part-time support.
- Level 3 – Identified gifted and talented students explore a differentiated curriculum and are given fulltime support.

Secondary (6-12)

- Level 1 – Honors classes are offered and open to all students.
- Level 2 – Subject area acceleration is offered to students who have met LEA determined criteria.
- Level 3 – Early College or Dual Enrollment is offered to students who have met LEA determined criteria.

Additional Recommendations: Collaborative Professional Activity Time

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

- How are advanced students considered in the teacher lesson planning and preparation process?
- Are there opportunities for co-teachers (general education and gifted/talented specialist) to plan together?
- How do you get specific feedback from stakeholders (students, parents, and staff) related to advanced academics?

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

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

Collaborative Instructional Strategies and Data-Driven Support for MLs:

- How can ML teachers, general education teachers, and specialists collaborate more effectively to integrate language support across all subjects? I.e.
- How can literacy programs be adapted to meet the specific language proficiency levels of multilingual learners (MLs)?
- How can digital tools and resources support literacy and language development for MLs?
- How can you assess both language and content mastery in a way that reflects MLs' diverse skill sets?
- What systems can be put in place to facilitate regular communication between ML staff and content teachers about student progress and needs?
- How can co-teaching models be expanded to foster stronger collaboration and improve outcomes for multilingual learners?
- How can data teams better analyze language development and academic achievement data to identify areas where MLs need more targeted support?
- How can school systems ensure that various departments (e.g., special education, gifted and talented, ML) collaborate to meet the unique needs of MLs who might fall into multiple categories?

Professional Development

- How can professional development be differentiated to meet the varying levels of educator experience with multilingual learners?
- How can PD be more aligned with the specific needs of MLs, focusing on both language acquisition and content mastery?
- What structures can be developed to encourage teachers to reflect on and share effective instructional strategies for MLs?
- How can ongoing coaching and peer support systems be developed to ensure that educators continue to refine their approaches to teaching MLs?

Family Engagement and Community Partnership

- How can we ensure that family workshops and resources are culturally appropriate and reflect the diverse experiences of MLs' families?
- What feedback mechanisms can we create to ensure that family engagement efforts are meeting the needs of ML communities?
- How can we leverage technology to increase accessibility and engagement for families who may face barriers to in-person participation?

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

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

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- **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 <https://www.achieve.org/publications/integrating-employability-skills-framework-all-educators>

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

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

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

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

American Association of School Librarians. (2019). *Position statement on flexible scheduling*. American Library Association. Retrieved from https://www.ala.org/sites/default/files/aasl/content/advocacy/statements/docs/AASL_Scheduling_Position_Statement.pdf

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

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

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 <https://www.gse.harvard.edu>

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: <https://www.ucsf.edu/news/2022/12/425356/too-much-screen-time-bad-kids-its-complicated>

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). [Effective instruction for adolescent struggling readers](#): 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 <https://mtss4success.org/essential-components>

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

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

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

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

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. <https://knowledgequest.aasl.org/the-intersection-of-science-and-joy/>

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. https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2015056.pdf

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.sjf.edu/cgi/viewcontent.cgi?article=1248&context=education_ETD_masters

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

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

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

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*.
<https://www.iste.org/standards/students>

Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., and Torgesen, J. (2008). [Improving adolescent literacy: Effective classroom and intervention practices](#): 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 <http://ies.ed.gov/ncee/wwc>.

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

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.
<https://doi.org/10.17226/26853>.

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 https://blueprint.marylandpublicschools.org/wp-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 https://www.marylandpublicschools.org/programs/Documents/ITSLM/slm/MD_SLM_Standards.pdf

Massachusetts Reading Association. (n.d.). *The critical role of vocabulary development for English language learners*. Retrieved from <https://www.massreading.org/wp-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: <https://www.mayoclinichealthsystem.org>

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

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. <https://doi.org/10.1016/j.cobeha.2016.04.006>

MTSS Guide and more resources: <https://mtss4success.org/>

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

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. <https://doi.org/10.17226/13165>.

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

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. <https://doi.org/10.17226/26152>.

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. <https://doi.org/10.17226/26215>.

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

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. <https://www.nextgenscience.org/>

NGSS Lead States. 2013. [Appendix C: College and Career Readiness](#). Washington, DC: The National Academies Press.

NGSS Lead States. 2013. [Appendix D: All Standards, All Students: Making the Next Generation Science Standards Accessible to All Students](#). Washington, DC: The National Academies Press.

NGSS Lead States. 2013. [Appendix D: Case Studies](#). Washington, DC: The National Academies Press.

Office of Superintendent of Public Instruction. (2023). *Ninth Grade On Track Toolkit*. Retrieved from <https://ospi.k12.wa.us/sites/default/files/2023-08/ninthgradeontrack.pdf>

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

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 <https://www.risenetwork.org/freshman-on-track-toolkit>

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 <https://hms.harvard.edu/news/screen-time-brain>

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 <https://www.sreb.org/publication/elementary-science>

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

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 <https://www2.ed.gov/rschstat/eval/high-school/early-warning-systems-brief.pdf>

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

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

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