The purpose of this document is to increase Michigan’s capacity to improve children’s literacy and mathematics learning by identifying systematic and effective practices that can be implemented at the organizational level in educational and care settings that serve young children. To meet the needs of all young learners, organizational practices must support literacy and mathematics development in ways that systematically impact learning throughout elementary schools, early childhood learning centers, and other learning environments and programs.¹

Each of the ten recommended school-level or center-level systems and practices should occur in all Michigan prekindergarten and elementary school learning environments. These essential practices should be viewed, as in practice guides in medicine, as presenting a minimum ‘standard of care’ for Michigan’s children and educators.

The practices listed can be used in a variety of educational settings for young children. The document does not specify any particular programs or policies but focuses on research-supported practices that can apply to a number of programs and settings. As the local systems and practices occur at the building or center level, it is the responsibility of the school, center, or program leadership to ensure that these systems and practices are implemented consistently and are regularly enhanced through strategic planning.
Our Values

Our values fundamentally shape our design of, and practice within, educational systems. Interpretation and implementation of the Essential School-Wide and Center-Wide Practices in Literacy and Mathematics, Prekindergarten and Elementary Grades should be shaped by the following research-supported values:

1. **The leadership team** is composed of instructional leaders committed to continuous improvements in literacy and mathematics with ongoing attention to data.

   Under the guidance of the lead administrator, the school or program leadership team:

   - includes members with considerable, current, and collective expertise in literacy, mathematics, instructional improvement, systems change, and early childhood education;
   - promotes the implementation of evidence-based, high-quality literacy and mathematics curriculum, instructional practices, resources, and assessments aligned across the learning environment;
   - develops a vision, mission, set of goals, and educational philosophy that guide school climate, children’s learning, and educator learning and that are shared school-wide and aligned across all ages and grade levels, including Pre-K, and across all professional roles for the purpose of continuous improvement;
   - engages in ongoing learning about high-quality instruction, educator learning, equity oriented continuous improvement, and systems leadership;
   - maintains a comprehensive system for assessing children’s strengths and needs that focuses on multiple points of data (e.g., formative, summative, family input, student voice) and keeps the best interests of children paramount in assessment, knowing the primary purpose is to promote equity by improving teaching and learning;
   - makes decisions based on deep understanding of community, school and district goals, strengths, and needs using iterative strategies such as Plan, Do, Study, Act cycles;
   - ensures a collaborative problem-solving approach that may include administrators, teachers, instructional coaches, parents, aides, reading and mathematics specialists, library media specialists, special educators, and others as needed; and
   - distributes leadership throughout the organization for the purposes of drawing on multiple perspectives, working collectively for improvement, and building leadership capacity among all staff.

2. We value a sustained, collaborative, and systemic approach to improving teaching and learning, with the acknowledgement that meaningful change takes time, requires ongoing inquiry and revision, and is never done.

3. We value equity and inclusion for all children, families, and educators, with the recognition that schools and centers must resist and dismantle institutional practices that have historically marginalized some individuals and communities.

4. We value children’s and educators’ social identities like age, race, ethnicity, gender, language, socio-economic status, and geographic context (e.g., urban, rural, suburban).

5. We value caring learning environments where children, families, and educators have trusting relationships with one another and feel supported to learn and take risks.

6. We value strategic, research-supported development of educators’ practices, knowledge, and identities because powerful learning for children requires powerful learning for educators.
2. The organizational climate reflects a collective sense of responsibility for all children, a focus on developing child independence and competence, and support for the learning of all children and adults.

All adults—administrators, teachers, specialists, aides, and support staff—throughout the organization:

- share and act upon a sense of collective responsibility for the literacy and mathematics growth and overall well-being of every child that is grounded in the shared belief that every child can and will be successful and that draws upon assets from children’s families, communities, cultures, and identities;
- ensure that the entire learning environment is physically safe and emotionally supportive, such that all children feel a sense of belonging, and there are positive educator-child-family, child-child, and educator-educator relationships throughout the building;

• support the development of children’s independence, competence, self-efficacy, and identity in reading, writing, and mathematics through practices such as helping children identify and build on their academic strengths, providing specific feedback to help children grow, and modeling the thoughts and practices of successful readers, writers, and mathematicians;
• promote authentic engagement and rigor among culturally and linguistically diverse students by building culturally sustaining and responsive learning environments; and
• share professional trust, collective efficacy, and a sense of agency and voice in shaping the organization.

3. The learning environment reflects a strong commitment to literacy and mathematics.

Throughout the learning environment, there is evidence that:

- literacy is a priority, such that:
  - print experiences are meaningful with consideration of the amount, type, and use;
  - children and teachers are actively engaged with the school library, media center, and library media specialist;
  - guest readers and volunteers (e.g., parents, college students, community members) are recruited and trained to support literacy in an ongoing manner;
  - events and activities generate excitement around books and other texts, for example through the announcement of the publication of the latest book in a series or posting of book reviews throughout the school; and
- mathematics is a priority, such that:
  - children’s developing and varied mathematical ideas are central to instruction and fostered through collective learning;
  - learning environments are designed to foster mathematical experimentation, practice, and play, including access to mathematical tools and manipulatives;
  - educator professional learning emphasizes an ongoing focus on supporting rich mathematical discussion and problem-solving and fostering positive mathematical identities;
  - goals for and celebrations of learning emphasize reasoning and problem solving and are not limited to performance on standardized assessments;
- literacy and mathematics are integrated and occur throughout the day including during science and social studies learning;
- children regularly use literacy and mathematics concepts by reading, writing, speaking, and listening for multiple purposes, and student products are made prominently visible;
- books, learning materials, student tasks, and classroom decor reflect diversity across cultures, ethnic and racial groups, geographic locations, genders, and social roles;
- school staff aim to foster intrinsic motivation to learn, such that:
  - in literacy, there is only temporary and sparing, if any, use of non-reading related prizes such as stickers, coupons, or toys, and avoiding using reading and writing as “punishment.”
  - in mathematics, there is emphasis on the relevant, real-world use of mathematical concepts and problem-solving and avoidance of mathematical activities that can lead to anxiety.
4. Ongoing professional learning opportunities reflect research on learning and effective literacy and mathematics instruction.

School, center, and program leaders prioritize educator learning and ensure that professional learning opportunities are:

- intentional in terms of content, such that learning opportunities are:
  - responsive and data informed so that they meet the needs and best interests of educators and their students;
  - focused on development of educators’ understanding of content, instructional practices, context, and student learning, motivation, and engagement;
  - integrating learning about content instruction with learning about culturally responsive, asset-based, and equity-oriented instructional practice;
  - aligned with the research-supported, developmentally appropriate practices outlined in the Essential Instructional Practices for Literacy and Mathematics;
  - focused on the “why” as well as the “how” of effective whole-class and small group instructional practices;
- intentional in terms of context, such that learning opportunities are:
  - collaborative in nature, involving colleagues working together in ways that foster trust, vulnerability, curiosity, experimentation, and critical reflection;
  - intentional in terms of design, such that learning opportunities are:
    - structured in ways that foster job-embedded, collaborative learning (e.g., study groups, collaborative inquiry, and problem solving);
    - designed to include, and be followed by, opportunities for teachers to experiment with and observe effective practice and receive feedback from mentors, peers, coaches, and/or principal;
    - based in an understanding of the educator knowledge, skills, and identities reflected in the Essential Instructional Practices for Literacy and Mathematics;
    - inclusive of modeling and instructional coaching with colleagues who demonstrate effective practices with children and provide opportunities for teachers to reflect on their knowledge, practice, and goals in an ongoing and continuous manner.

5. There is a system for determining the allocation of literacy and mathematics support in addition to high-quality classroom instruction with multiple layers of support available to children, building on existing skills.

School, center, and program leaders ensure that:

- instruction and additional supports are implemented across learning environments in addition to, not instead of, core instruction, and are coherent and consistent with the Essential Instructional Practices for Literacy and Mathematics;
- supports are differentiated to the individual child’s specific profile of strengths and needs;
- highly trained educators are those teaching the children needing the most support;
- teachers are supported to design needs-based instruction by using and analyzing multiple, varied, systematic, formative assessments and observation as appropriate in an ongoing basis to:
  - identify individual child needs early and accurately;
  - tailor whole group, small group, and one-on-one instruction;
  - measure progress regularly; and
  - move students fluidly among layered supports as their needs change in order to avoid ability grouping that is long-term and static in nature; and
- formal and informal assessment practices disrupt historical patterns of marginalization with respect to race, ethnicity, gender, ability, socio-economic status, language, etc.
6. Organizational systems assess and respond to *individual needs* that may impact learning and development.

School, center, or program systems and leaders ensure that:

- any potential learning, physical, visual, regulatory, mental health, and social-emotional needs that require specific conditions and supports are identified;\(^{42}\)
- assessments, interventions, and initiatives align with family and community values, culture, and history and attend to student strengths, assets, and funds of knowledge;\(^{43}\)
- every adult has access to research-supported strategies and tools to support culturally responsive, whole-child development for each child, including, for example, strategies for improving socio-emotional skills such as emotional understanding and techniques for helping children develop executive function skills such as planning;\(^{44}\)
- children receive coordinated, intensive supports and services that include continued collaboration among teachers, interventionists, family, and others whose expertise is relevant (e.g., special education teacher, school psychologist, school nurse, social worker);\(^{45}\) and
- all adults intentionally work to:
  - identify systems and conditions that may hinder or support learning for each child;
  - modify learning environments to recognize and respond to children’s individual, developmental, and cultural needs;
  - foster collaborative relationships with professional colleagues and children’s families; and
  - assess whether school-wide patterns in learning and/or behavior warrant adopting strategies or programs and, if so, implement ones that are caring, student-centered, and equity-oriented and that have been shown to positively impact both academic and socio-emotional learning.\(^{46}\)

7. Adequate, high-quality *instructional resources* are well maintained and utilized in ways that align with the Essential Instructional Practices for Literacy and Mathematics.

Leaders and systems within the school, center, or program ensure that:

- teachers are provided with resources, including technological and curricular resources, that support research-supported instruction in all components of literacy and mathematics instruction and that provide continuity across ages and grade levels;
- teachers have professional learning opportunities and support for effective use of available technologies, materials, and resources;\(^{47}\)
- each child has access to many informational and literature texts in the classroom and school, with culturally diverse characters and themes, that they want to read and that they can read independently or with the support of others;\(^{49}\) and
- well-stocked school libraries and/or media centers, with library media specialists, offer a large collection of digital books, print books, and other reading materials for reading independently and with the support of others to immerse and instruct children in varied media, genres of texts, and accessible information.\(^{50}\)
8. A consistent *family collaboration* strategy includes specific attention to literacy and mathematics development.

Members of the learning organization collaborate with families to:

- prioritize learning about families and the language, literacy, and mathematics practices in which they engage to inform instruction, drawing from families’ daily routines that build on culturally developed knowledge and skills accumulated in the home (e.g., inviting families to share texts they read and write and mathematical problems they encounter as part of their lives at home or at work);\(^{51}\)
- provide regular opportunities for families to be in schools and centers and for educators to be in community spaces;
- enable families and educators to build a network of social relationships to support children’s language, literacy, and mathematics development (e.g., connect families with community organizations and with each other to celebrate and support learning);\(^{52}\)
- foster familial and community partnerships in the education of children and the work of the learning environment through equitable collaboration and reciprocal relationships;\(^{53}\)
- engage families to build leadership and gather feedback to guide future collaboration and promote positive experiences for each child; and\(^{54}\)
- examine how families can utilize research-supported strategies to foster literacy and mathematics development at home (see *Essential Instructional Practices for Literacy and Mathematics*).\(^{55}\)

9. A *summer learning* initiative fosters continued engagement with literacy and mathematics.\(^{56}\)

To support summer reading and mathematics learning, the school, center, or program:

- facilitates opportunities for every child to read books and access texts during the summer through strategies, including:
  - providing books that are of high interest to children and within the likely range of reading levels within each class;\(^{57}\)
  - connecting children to summer reading programs offered through school and public libraries;
  - providing instruction at the end of the school year to re-emphasize reading comprehension strategies and orient children to summer reading by encouraging use of effective strategies while reading at home,\(^{58}\) and
  - collaborating with families to support reading at home, such as by encouraging family members to listen to their child read aloud, discuss books with their child, and provide feedback on their child’s reading.\(^{59}\)

- facilitates opportunities for children to engage with mathematics during the summer through strategies including:
  - providing access to games and other activities that families can do together;\(^{60}\) and
  - collaborating with families to learn about strategies for supporting relevant and joyful mathematical talk, play, and problem solving within home and community contexts.\(^{61}\)

- facilitates access to a free, voluntary, high-quality instructional summer program for children that includes five to six weeks of programming, research-supported and small-group learning, highly qualified teachers, a positive learning environment, and meaningful partnerships with families.\(^{62}\)
Connections beyond the school, center, or program walls provide:

• organization-wide and classroom-level networking with local businesses, cultural centers, and community organizations to:
  - tap into available funds of knowledge,
  - support development of children’s content knowledge and identities, and
  - facilitate opportunities for children to read, write, and do mathematics for purposes and audiences beyond school assignments;

• access to opportunities for individualized support that aligns with Essential Instructional Practices for Literacy and Mathematics, for example through one-on-one tutoring, and
• opportunities for children to develop literacy and mathematics outside of the school hours, including through engaging out-of-school time library, community, and school programs in the summer and after school.

References


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References


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References


Process for Development and Review

This document was developed by the Early Mathematics Task Force, a subcommittee of the Michigan Association of Intermediate School Administrators (MAISA) General Education Leadership Network (GELN), which represents Michigan’s 56 Intermediate School Districts. The Task Force included representatives from the following organizations:

- Early Childhood Administrators’ Network, MAISA
- English Language Arts Leadership Network, MAISA
- General Education Leadership Network, MAISA
- Grand Valley State University
- Kalamazoo Public Schools
- Michigan Association for Computer Users in Learning
- Mathematics Leadership Team
- Michigan Assessment Consortium
- Michigan Association of Mathematics Teacher Educators
- Michigan Association of Superintendents & Administrators
- Michigan Association of Supervisors of Special Education
- Michigan Council of Teachers of Mathematics
- Michigan Department of Education
- Michigan Elementary and Middle School Principals Association
- Michigan’s Integrated Behavior and Learning Support Initiative
- Michigan Mathematics and Science Leaders Network Michigan State
- Michigan Reading Association
- Michigan State University
- Michigan Virtual University
- MISTEM Network
- Reading NOW Network
- REMC Association of Michigan
- Southwest Michigan Reading Council
- Technology Readiness Infrastructure Grant
- University of Michigan
- University of Washington

Feedback on drafts of the document was elicited from other stakeholders, resulting in a number of revisions to the document.

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