Early Childhood Indicators of Progress

Minnesota's Early Learning Standards: Birth to Kindergarten (2028)

MINNESOTA

Early Childhood Indicators of Progress Minnesota's Early Learning Standards

Introduction

The first five years of a child's life are incredibly important for later development and learning. In fact, while the newborn's brain is 25% of its adult size, by age five it will have reached 90%.[1] A child's early experiences and relationships play a vital role in brain growth and development. Children's brains grow as they play, learn, and think about how their body works and how they feel. Research shows that the quality of young children's relationships, including with families and caregivers, is critical to future success in school and life.[2]

Early childhood specialists have developed what is known as "early learning guidelines" that describe what young children can know and do as they grow and develop; that is, they outline the knowledge and skills that all young children should be provided opportunities to learn.[3,4] In Minnesota, these shared expectations are called the *Early Childhood Indicators of Progress: Minnesota's Early Learning Standards* (ECIPs). The following beliefs and values guide Minnesota's work with children and families:

- Learning should be welcoming and joyful for all.
- Children are always learning.
- Experiences, skills, and knowledge are tied to a family's home life, culture, and opportunities.
- A strengths-based mindset is critical to supporting children and families.
- Diversity of all types should be celebrated.
- Adults and systems should support all children and families wherever they are in their learning progression.
- Care and instruction should be developmentally appropriate, supported by research, and individualized.
- Messaging should be inclusive and promote equity.

A vast body of research shows that children are always learning; there is no specific point at which they become "ready" to learn. Children are born with a natural ability to learn. Because children's early experiences also profoundly affect learning, caregivers of young children have critical roles.[2] Quality early childhood education can promote intellectual, language, physical, social, and emotional development, building a foundation for success in school and life. In Minnesota, this is illustrated through the Successful Learner Equation, which recognizes that successful learners are the product of families, communities, ready schools and programs, and a ready state with ready systems. Early learning standards provide the structure for supporting positive development and learning across these four components in the early years.[3,4]

How Children Learn in the Early Years

Every moment for a young child is a learning opportunity. Every interaction and experience with their families, community, schools, and programs gives them information, increases their understanding, and provides them with foundational skills they will use for the rest of their lives.

> *We now know that rich and engaging early learning experiences and nurturing, responsive relationships with parents and caregivers are as important to a young child's developing mind as nutritious meals and good health care are to their developing bodies.*[4]

Children flourish in supportive relationships.[6,7,8] Throughout this document, the term "caregiver" is used to describe any adult who supports a young child's development. This includes early care and education professionals; parents, grandparents, other family members, and legal guardians; and it also may include librarians, bus drivers, and others who regularly interact with young children. Children benefit from the collective knowledge and perspectives of the caregivers in their lives. Through interactions with objects, the environment, and people, children begin to explore and understand how the world works. They also gain confidence in learning by being active participants in their own development.

> *No child develops in a vacuum. Children are affected by their home and school environments, the policies and practices that inform those environments, the cultural values that scaffold them, and the complex relationships between these factors.*[9]

Play, Exploration, and Active Learning

The most effective methods for engaging young children in learning are based on young children being active participants. Play—child-directed, teacher-directed, or guided—exploration, and constructive learning are critical activities for all young children; more so than teacher-led, passive learning experiences.[10,11] "Early childhood educators who create ample opportunities for play allow their students to grow their interpersonal skills, develop higher-level vocabulary, and understand their worlds in deep and meaningful ways."[10]

For infants and toddlers, play and exploration are rooted in strong attachments to trusted caregivers. The young, non-mobile infant observes adult caregivers and explores their environment by using their senses and taking in everything around them. As older infants begin to crawl and walk, they are able to interact more with the physical environment and explore their surroundings, still needing the base of support provided by familiar and trusted adults.

Toddlers are even more active as they play and explore with a greater range of motion and physical capabilities. Their increasing communication skills and growing independence allow them to be more adventurous and more able to explore with a solid base of adult support.

For young children, play and exploration are the most meaningful ways for children to acquire skills and knowledge. Play and exploration also allow young children to practice skills and refine their understanding of new concepts. Links have been made between play and the development of basic literacy skills (e.g., vocabulary, phonemic awareness, word recognition, etc.), creative problem-solving, behaviors that help children get along within their environments (e.g., group entry, apologizing, listening, empathy, etc.), self-regulation, and executive function (e.g., skills that help us plan, pay attention, remember, and manage multiple tasks).[12] When children are given the opportunity to deeply engage in play, their curiosity increases as they experiment and predict what may happen next. Play provides strong motivation for learning and multiple opportunities for practice and skill development.

Caregivers and early education professionals should intentionally structure the environment with safety in mind and offer intriguing objects and experiences, appropriate for the developmental level of each child. They should interact with children as they play and explore, giving descriptions that increase vocabulary, engaging in longer conversations as children's language usage increases, and encouraging curiosity and problem solving. They should observe children at play and during routines and use the ECIPs to identify the skills and knowledge that the child is demonstrating and what they are ready to do next. Based on their observations and reflections related to the ECIPs, caregivers can scaffold learning by individualizing play activities and carefully choosing materials, offering ideas, interacting with children, and observing their responses. The ongoing planning/observation/reflection authentic assessment cycle is at the heart of best practices.

> *By leveraging children's own interests and mindfully creating activities that let children play their way to new understanding and skills, educators can start using this powerful approach today. By harnessing the children's interests at different ages and engaging them in playful learning activities, educators can help children learn while having fun. And, importantly, educators will have more fun too when they see children happy and engaged.*[13]

Purposes for Early Learning Standards

The ECIPs were developed and revised so that caregivers have a shared understanding of development and learning progressions for Minnesota's youngest learners. The ECIPs are based on the most recent research and demonstrate a continuum of learning that includes expectations for instruction of all children. This continuum is meant to be inclusive of all children, including those who have/may have a disability, those who are dual language or multilingual learners, and those from all cultural backgrounds. The ECIPs are a framework that fulfills multiple purposes:

1. **Provide a resource** for early childhood professionals as they work with young children and their families across the state.
2. **Provide a resource** for adults who are raising young children.
3. **Support** quality improvement initiatives in early childhood care and education.
4. **Align** across the full educational spectrum from birth through secondary levels.

The ECIPs as a Resource

The ECIPs offer research-based information about progressions of development and learning so that early childhood professionals and caregivers in Minnesota have a common framework and vocabulary. Professionals can use this document to plan a curriculum that is developmentally appropriate for children of different ages and abilities, attentive to the individual needs of children, and culturally responsive to children's varying life experiences. Caregivers can use this document to understand the development of the children in their care and determine how best to support them. The continuum of learning in the ECIPs should be used to support early childhood professionals' and kindergarten teachers' knowledge in ensuring that early childhood settings are ready for all children.

The ECIPs as a Support to Improvement Initiatives

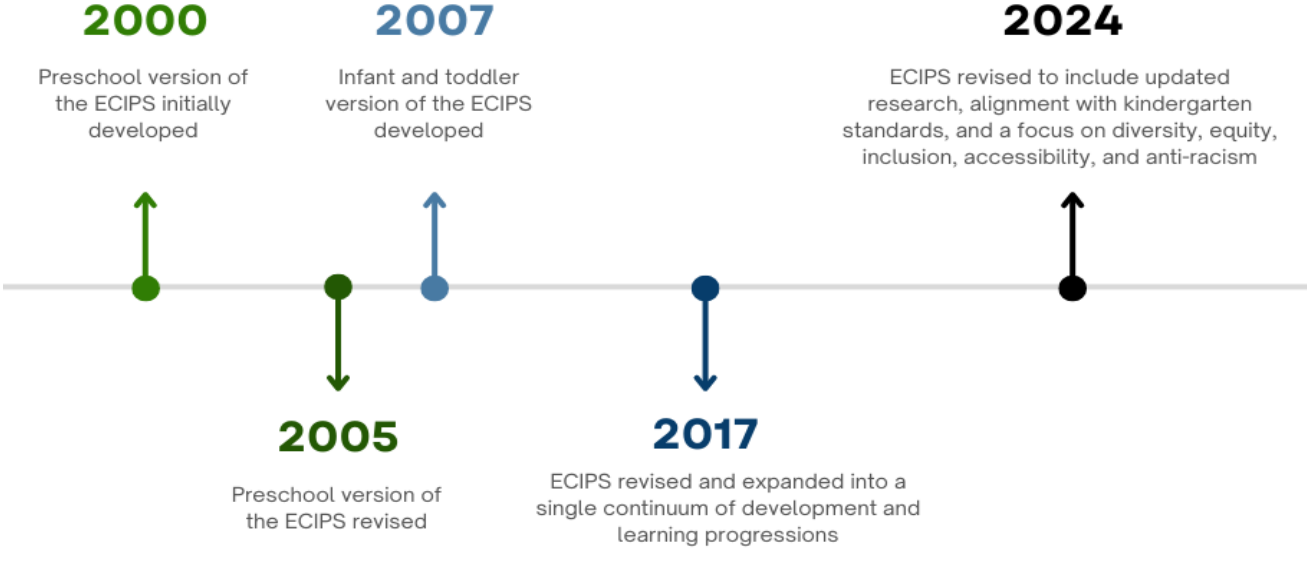
As a framework for accountability, the ECIPs are intended to inform the design of curricula and assessment tool selection. The ECIPs are not an assessment tool. The ECIPs should serve as the foundation for the authentic assessment process (see *Authentic Assessment* section below).

The Alignment of the ECIPs

The ECIPs have been and continue to be aligned with the current version of the Minnesota Academic Standards. They reflect the child development knowledge that defines the foundational skills necessary to build toward school success.

Background of the ECIPs Revision

The preschool version of the ECIPs was initially developed in 2000 and revised in 2005; the infant and toddler version was developed in 2007. These were revised and expanded into a single continuum of development and learning progressions in the 2017 version of the ECIPs. The most current version was revised in 2024 and includes updated research, alignment with current kindergarten standards, and a focus on diversity, equity, inclusion, accessibility, and anti-racism. Every team involved in the revision took an equity-focused approach to the work. As examples, equity-focused professional development was provided to the revision team who led the workgroups, equity-focused content was shared with all workgroup members during each meeting to frame their thinking and remind members that young children are at the center of this work, and multiple opportunities were provided to the work group members to modify indicators to be inclusive of all young children in Minnesota. These efforts were a critically important way to begin the revision work. The equity-focused approach must continue to be emphasized and embedded as the ECIPs are disseminated and used within the early childhood profession.



The revision process of the ECIPs used committees composed of professionals from school districts, Head Start and childcare, including diverse content specialists, teachers, providers, coaches, faculty, trainers, and administrators, convened to address specific domains. The proposed changes were reviewed by additional content experts. Finally, the standards were reviewed for plain language to ensure the standards are as clear as possible.

The 2024 revision includes the following changes:

- Inclusion of the most up-to-date research on child development;
- Examples and language that are inclusive of all Minnesotans;
- Updated information on alignment to the most recent kindergarten standards.

The major limitation of the ECIPs is that it cannot capture and describe the development of individual children and all the skills, talents, and knowledge they demonstrate.

The ECIPs are meant to be inclusive of a large number of children who are likely to follow a similar, evidence-based developmental path. The document should be used in combination with other reliable, valid sources of information (e.g., research, standardized assessment tools, developmentally appropriate and research-based curricula) that help adults determine how best to support each child within their care. In addition, there are times when professional judgment is necessary to determine where a child is on their developmental path. Caregivers and professionals who know the child best can work together to determine the child's developmental level and how best to help the child grow and learn.

Guiding Principles for ECIPs Development

The ECIPs revision is based on the following guiding principles. The ECIPs:

Recognize that ALL young children are:

- competent and capable of positive developmental outcomes and are best supported with high expectations;
- best understood and supported within the context of their family, culture, and community;
- individuals who develop at different rates and will vary in their progress within learning domains;
- in a period of rapid brain development and deserve nurturing environments with trusted adults who provide appropriate interaction and encouragement to take full advantage of this growth period; and
- active learners who learn best in environments where they can construct their knowledge and practice their skills in a variety of ways, with caregivers and professionals who respect and respond to their individual needs.

It's important that early childhood professionals "recognize each child's unique strengths and support the full inclusion of all children—given differences in culture, family structure, language, racial identity, gender, abilities and disabilities, religious beliefs, or economic class."[14]

Support equity and excellence for all children in the state of Minnesota.

Quality early childhood education supports the optimal development of every child regardless of income, ability, race, culture, or disability. The ECIPs promote equity and excellence so that every child has access to professionals and caregivers whose expectations are rigorous and achievable for every child. These expectations are the foundation on which teachers and providers build the support for individual children while working toward evidence-based expectations for all. The ECIPs are written in a way so that professionals and caregivers can plan experiences that reflect families' cultures, interests, experiences, and perspectives. This version of the ECIPs pays special attention to the influences of race, ethnicity, culture, and ability so that all of Minnesota's children benefit from high-quality care and programming.

Describe observable behaviors.

The ECIPs are written in language that allows for consistent understanding and implementation by professionals and caregivers. Because the indicators are formatted across a continuum of age groups, the standards make it possible for children to demonstrate an outcome through a variety of culturally appropriate ways and with a variety of materials. This helps early childhood professionals use authentic assessment practices based on ongoing observation and documentation. In addition, the language of the ECIPs allows for flexibility as early childhood professionals work closely with a child's caregivers to learn more about how the child is developing in their family, neighborhood, religion, or ethnic group.

Demonstrate an integrated continuum of learning from birth to kindergarten.

Development is variable and children may demonstrate behaviors identified for younger children or demonstrate skills or knowledge beyond their present age. The ECIPs continuum across different age ranges allows users to identify where each child is functioning, easily see what the next expectation is, and see the indicator(s) in a previous age range, which can guide professionals and caregivers to plan for missed or needed experiences and adapt curricula and learning accordingly.

While young children's development follows a predictable, evidence-based sequence, development varies from child to child. Each child's pattern and pace of development varies. Every child has strengths in certain domains and needs for greater support in others. Sometimes children have an identified delay or disability that requires adaptations and accommodations. The continuum provided is intended to be a developmental progression of skills rather than a list of strict or "fixed" milestones that every child must demonstrate. The continuum in the ECIPs is intended to help professionals and caregivers address individual differences among children in their care.

Learning is strongest when integrated across domains or broad areas of growth and development. Development in one domain influences development in other domains. For example, children with a strong self-concept and expanding oral language skills may engage in more successful social interactions with peers and adults. The ECIPs address this interrelatedness in the inclusion of some similar indicators across different domains. As professionals and caregivers observe children's performance using the ECIPs, they should recognize children's strengths, build upon them, and maximize connections across domains.

What the ECIPs Are and What They Are Not

The ECIPs demonstrate a **continuum of increasingly complex learning** for children from birth to kindergarten entrance. They are intended to address the development and learning of ALL children, including children who:

- are typically developing,
- are dual language learners,
- are from diverse cultures, and
- have disabilities.

They are not an all-inclusive resource about children's development. The standards reflect a selection of **important, evidence-based developmental expectations** that highlight the learning and skills children need to be equipped for future learning and continue as life-long learners.

There are appropriate and inappropriate uses of the ECIPs. They are not intended to be used as a curriculum, assessment, or diagnostic tool. **The ECIPs should never be used to determine children's eligibility for various programs or services or to deny children access to programs or services**.

This tool can be used to **inform instructional decisions and how best to support children's learning.** For early childhood professionals, the information shared within the ECIPs should relate specifically to a program's authentic assessment procedures and content.

Opportunities for Children

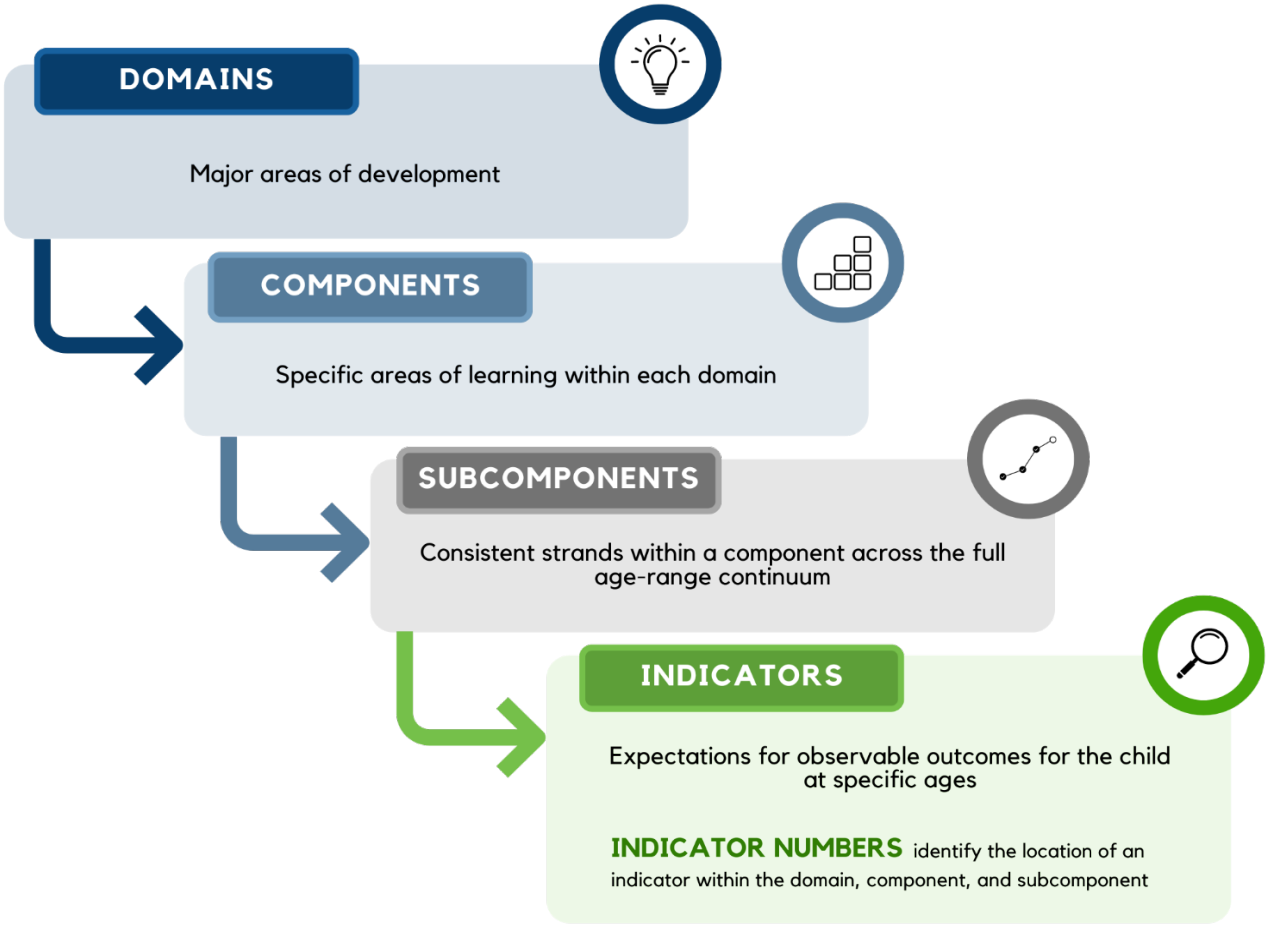
The ECIPs can provide the following opportunities for Minnesota's youngest children:

- Children will experience consistent expectations for their development from trusted caregivers and early childhood professionals. These expectations should be consistent across any early childhood programming that serves young children.
- All children will have access to challenging content and the support they need to learn that content.
- Children will experience developmentally appropriate, understandable, evidence-based progression of learning expectations throughout early childhood. These learning expectations are also aligned with those in kindergarten and the primary grades.

How to Read the Revised ECIPs

The organization of the domains is designed to be easy to understand and aid in planning for individuals and small groups of children. As with the 2016 version, the ECIPs are displayed as an approximate age-range continuum, reflecting the understanding that individual children's skills emerge at different times. Included within each domain are the following elements:

- **DOMAINS** are major areas of development.
- **COMPONENTS** are specific areas of learning within each domain.
- **SUBCOMPONENTS** are consistent strands within a component across the full age-range continuum.
- **INDICATORS** are expectations for observable outcomes for the child at specific ages. For quick reference, indicators are now numbered within the domain and subcomponent.
- **INDICATOR NUMBERS** identify the location of an indicator within the domain, component, and subcomponent.



The learning domains within the ECIPs (listed alphabetically), include:

1. Approaches to Learning
2. The Arts
3. Language, Literacy, and Communications
4. Mathematics
5. Physical and Movement Development
6. Scientific Thinking
7. Social and Emotional Development
8. Social Systems

Indicators within each column by age-range continuum (e.g., 1-2 years) are listed in approximate developmental order. For example, the skill described in the first indicator typically emerges at the beginning of the age-range continuum and progresses as the child develops.

Note: when supported by the research, there may be times when additional age ranges are identified. For instance, within Physical and Movement Development: Dexterity (P6), the research designates what can be expected of a 0-6 month old child that is different from what can be expected of a 6-12 month old child.

How Different Groups Can Use the Standards

The primary audience of the ECIPs is professionals in early childhood care and education programs who work with children from birth to kindergarten entrance. The settings for these programs may include school districts, child care (home or center-based), community preschools, and Head Start programs. Administrators, directors, principals, educational leaders, policy makers, community members, and other stakeholders will use the ECIPs when planning for or assessing the effectiveness of current policies and resources related to the optimal development of young children.

The ECIPs are also intended to support caregivers of young children. Communication with families and caregivers should include discussions of the ECIPs, so they have the information they need to support children's learning and development. Potential uses of the ECIPs by different groups are described more fully below.

Caregivers and Families

Family engagement is an essential component of the successful implementation of early learning standards.[15, 16] Families and caregivers of young children in Minnesota are better able to understand children's development and communicate more fully when early childhood professionals share this framework with them. The standards create a common vocabulary for families, caregivers, and professionals so that communication is effective. Collaboration between caregivers and professionals is the best way to provide consistent, high-quality support to every child in their care.

Early Childhood Professionals

The ECIPs should be used frequently as a tool to assist in meeting the individual needs of all children. Early childhood professionals may use the ECIPs in three primary ways:

1. To guide planning for learning experiences and effective caregiving and teaching strategies.
2. To provide direction for authentic assessment of young children.
3. To support the engagement of families and caregivers.

In addition, early childhood professionals will be impacted by the ways that the ECIPs influence program standards and evaluation. Plans for staff training and development sessions and higher education coursework in Minnesota will integrate the ECIPs into all areas of best practices for those working with young children.

Curriculum Planning

When planning for curricular approaches for infants, toddlers, and preschoolers, early childhood professionals can turn to the ECIPs to identify the concepts, knowledge, and skills appropriate for children at different ages. These professionals can use the broad developmental trajectories identified in the ECIPs to plan for individual children and determine the best ways to support each child's continued growth. In addition, by collaborating with families and considering diverse cultural backgrounds, early childhood professionals ensure that instructional approaches are culturally inclusive as they plan activities and experiences.

Using common vocabulary from the ECIPs supports strong communication among all professionals within and across early childhood programs. It is important for professionals to understand that meeting a child where they are developmentally may include working on an earlier skill rather than moving towards a more developmentally appropriate skill.

Authentic Assessment

The ECIPs should not be used as an assessment. The ECIPs provide direction for early childhood professionals when using authentic assessment procedures to monitor young children's progress. Authentic assessment tools should be selected to ensure standards (such as the ECIPs), curricula, assessments, and teaching strategies create a coherent experience for children and enable professionals to understand and accurately support individual children's learning and growth. Early childhood professionals can engage in criterion-referenced, observational assessment that is authentic, meaning that it is grounded in the everyday practices of observation, documentation of what is observed, and collection of work samples; completed by those who know the child well; and conducted in the child's natural environment.[17, 18] Authentic assessment is a strengths-based approach to understanding where children are in their development. Authentic assessment should:

- celebrate the multiple ways of learning and representing knowledge children have, understanding that expectations about what a child can and should be able to do are mediated by cultural, family, and community values and practices; and
- value and build on the knowledge that both caregivers and children bring to their learning.

Staff Training and Development

Higher education coursework and ongoing staff training and development are important ways to strengthen the competencies of professionals in early childhood education programs. The ECIPs will be integrated into these learning experiences for early childhood professionals, offering a framework of child development expectations and developmentally appropriate practices. Higher education coursework and staff development sessions increase familiarity with the ECIPs and address how standards inform curriculum and assessment.

How the ECIPs Relate to Program Standards and Program Evaluation

The ECIPs are a framework that supports high-quality programming for young children within any set of program standards. Programs may be accountable to the Head Start Program Performance Standards or to accreditation processes such as those established by NAEYC and the National Association of Family Child Care (NAFCC). In fact, these program standards create the conditions for successful implementation of the ECIPs by creating quality learning environments for young children.

Conclusion

The ECIPs are a solid foundation for the Minnesota early childhood care and education programs that offer services for young children and their families. The indicators in the ECIPs clarify expectations for all children's development while supporting professionals and caregivers in offering the highest quality support for young children and their families. Improved programs, quality interactions between children and trusted adults, and individualized planning lead to better outcomes for young children.

The ECIPs are the basis for the method and practice of teaching, curriculum development, child assessment, teacher preparation, and evaluation in Minnesota. The ECIPs are intended to support a reciprocal partnership with a shared understanding of children to plan together how best to support children's ongoing development and learning. In addition, community members and policymakers will use this document to make neighborhoods and cities robust places for children and families to thrive. The goal of these united efforts to implement the ECIPs fully is to support each child in growing, developing, and learning while reaching their full potential.

Approaches to Learning Domain

Children are constantly learning. Their brains are rapidly developing, and millions of connections are being created. Young children are learning to use their bodies. They are learning to express their feelings and learning about relationships. Communicating with others and understanding and using language is a major focus of their learning. Skills and concepts are acquired rapidly during early childhood, when children explore and make sense of experiences.

Most importantly, young children are learning how to learn and manage their learning. The domain of **Approaches to Learning** refers to the skills and behaviors that children use when learning, including emotional, behavioral, and cognitive skills. Emotional and behavioral skills referred to in this section include engagement, excitement, curiosity, and risk-taking. Cognitive skills include the way we sense, perceive, think, understand, and represent. **Approaches to Learning** focuses on the foundational skills that children must develop so that they can be successful as learners in later schooling and throughout their lives.

An important part of children's growth in the **Approaches to Learning** domain includes the development of executive function skills. This term describes skills that allow people to control their own behavior and direct it toward longer-term goals (maintaining a friendship or learning to write letters, for instance), rather than what is automatic or easiest to do.[19] A child's community and home cultural norms are the foundation for the development of executive function skills.[20]

Rapid brain development during early childhood and adolescence increases the capacity for the development of executive function skills.[19] Children develop the ability to control their own emotions and behavior first through co-regulation with important caregivers, a key developmental step in children's social and emotional development. As trusted, safe caregivers respond to young children and help them return to a regulated state, children gradually become more able to regulate themselves internally.

As children develop emotional regulation, they can develop the skills of executive function: working memory (the ability to hold and work with multiple pieces of information at a time), cognitive flexibility (the ability to switch back and forth between different ways of thinking), and inhibitory control (the ability to resist distraction).[19] These skills dovetail with those listed in the Approaches to Learning domain and help set the tone for how children approach learning.

> *Much like an air traffic control system at an airport helps planes on different runways land and take off safely, executive function skills help our brains prioritize tasks, filter distractions, and control impulses…The increasingly competent executive functioning of children enables them to plan and act in a way that makes them good students, classroom citizens, and friends.*[22]

Current research supports the importance of children's approaches to learning and success in school. For example, studies have found that children with higher levels of attentiveness, eagerness to learn, task persistence, learning independence, flexibility, and organization, generally do better in literacy, math, and science over time.[23,24] Approaches to learning skills "set the foundation for learning in early childhood", and "serve as mental tools that enable children to construct new

knowledge."[25] In addition, strong cognitive and social skills may also promote approaches to learning skills, which suggests that child development and learning are connected and work together over time.

> *Supporting children's skills in this domain helps children acquire knowledge, learn new skills, and set and achieve goals. They learn to successfully navigate learning experiences that are challenging, frustrating, or simply take time to accomplish. How children engage in learning influences development in all domains and directly contributes to success in school.*[26]

The **Approaches to Learning** domain includes four components:

- Components AL1-2: Curiosity and Inquisitiveness
- Components AL3-4: Attentiveness
- Components AL5-7: Imagination
- Components AL8-12: Processing and Using Information

The sub-components and indicators identified for the ages of birth through kindergarten entry address the specific expectations across the developmental spectrum.

- For infants, indicators focus on how infants show interest in their environment, interact with others and objects for short periods, begin to manage frustration, generalize experiences, and recognize cause and effect relationships.
- The indicators for toddlers include how they are beginning to examine the characteristics of objects, make some independent choices, handle transitions, seek out others to play and carry out play plans, pretend, and identify and communicate about problems.
- The indicators for preschoolers focus on how children show their eagerness to investigate new things, engage in play with peers for extended periods of time, persist, experiment with new ways to combine materials and contribute relevant information to discussions.

Depending on familial, cultural, and community values, the development of approaches to learning may look different for different children. In addition, activities and objects need to be relevant and engaging to individual children; when children are not presented with developmentally appropriate and engaging materials or experiences, they may present as inattentive or demonstrate behavior that looks "challenging." It is important for the professional and the caregiver(s) to communicate their expectations and goals for individual children while also understanding what is meaningful and appropriate for each child.

The skills and concepts in the **Approaches to Learning** domain are highly interrelated to children's development in other domains, in particular, social and emotional development. Caregivers of young children must actively provide instruction in this area so they can build approaches to learning skills throughout the curriculum.

The expectations that are set out in the **Approaches to Learning** domain of the ECIPs show the ways that children demonstrate approaches to learning at different ages. The indicators in the ECIPs help caregivers and early childhood professionals understand the expectations that are appropriate for the youngest learners. The alignment in the **Approaches to Learning** domain to the corresponding Minnesota Academic Standards: Kindergarten draws from several content areas.

Domain: Approaches to Learning

Components AL1-2: Curiosity and Inquisitiveness

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
AL1. Curiosity: Child expresses interest in novelty.	AL1.1. Vocalizes or gestures in response to a new person, toy, or experience. AL1.2. Bangs, moves, throws, and dumps materials.	AL1.3. Turns objects around, upside down and inside out to examine characteristics.	AL1.4. Begins to ask "why" questions frequently.	AL1.5. Expresses verbal and nonverbal interest when encountering novel objects or events.	AL1.6. Seeks out new experiences, objects, or materials for own enjoyment.	0.1.2.3. Choose and read texts that explore personal identity and interests, with prompting and support. *(2020 Minnesota K-12 Academic Standards in English Language Arts)*
AL2. Inquisitiveness: Child explores the environment and seeks interaction with people and objects; willingly tries new things.	AL2.1. Shows interest in the environment primarily through looking, listening, and using their mouth to explore things. AL2.2. Responds to people by looking, kicking legs, vocalizing, reaching.	AL2.3. Uses senses (touch, see, hear, smell, taste) to explore their environment. AL2.4. Repeats actions until satisfied with effort.	AL2.5. Investigates new materials in the environment.	AL2.6. Investigates and experiments with materials with interest. AL2.7. Explores and combines various materials in innovative ways, either by initiating new combinations or by extending the use of materials. AL2.8 Asks questions.	AL2.9. Notices and communicates curiosity about new objects, materials, and activities. AL2.10. Investigates new things and seeks novel experiences eagerly. AL2.11. Asks focused questions about topics of interest.	0.3.2.1. Speak audibly and express thoughts feelings, and ideas clearly. *(2020 Minnesota K-12 Academic Standards in English Language Arts)*

Components AL3-4: Attentiveness

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
AL3. Focused Attention: Child focuses visual and auditory attention on aspects of the environment when presented with developmentally appropriate and engaging objects, people, or activities.	AL3.1. Reaches, gestures, or moves toward an object or person that interests them or of their choice. AL3.2. Repeats actions.	AL3.3. Stays focused on sights, sounds, and actions for approximately one or two minutes. AL3.4. Repeats actions to participate in tasks.	AL3.5. Maintains focused attention on sights, sounds, and actions for three to five minutes. AL3.6. Repeats activities to complete tasks.	AL3.7. Engages in play with peers for 5-8 minutes. AL3.8. Maintains focused attention in a large group for short periods. AL3.9. Works at a task despite distractions until the task is complete.	AL3.10. Participates in large group activities led by a teacher for sustained periods. AL3.11. Participates in large group activities and discussions. AL3.12. Makes a plan to complete tasks.	

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
AL4. Choice Making: Child makes choices from developmentally appropriate and engaging objects, people, or activities offered by caregivers.	AL4.1. Shows preference for people, objects, and food.	AL4.2. Makes choices between two options, sometimes with assistance from adults.	AL4.3. Makes choices where appropriate without adult support (e.g., free choice activities or playing on playground equipment).	AL4.4. Engages in self-initiated activities for up to five-minutes.	AL4.5. Creates a plan to achieve a goal and follows through to completion with occasional adult support.	3.0.3.6.1. Make a musical choice while singing, playing instruments, or moving to explore the effects of musical elements. *(2018 Minnesota K-12 Academic Standards in Arts Education: Music)* 5.0.2.4.1 1. Identify choices made in one's original artwork. *(2018 Minnesota K-12 Academic Standard in Arts Education: Visual Arts)* 0.1.2.3 Choose and read texts that explore personal identity and interests, with prompting and support. *(2020 Minnesota K-12 Academic Standards in English Language Arts)* K.5.23.1 Create a personal representation of themselves, including their family and/or ancestors. Discuss the choices made, describing what is special and important, including strengths and assets. *(2021 Minnesota K-12 Academic Standards in Social Studies)*

Components AL5-7: Imagination

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
AL5. Creative Play: Child demonstrates imagination in their play.	AL5.1. Uses senses to engage with people and objects. AL5.2. Makes cooing sounds, imitates facial expressions, reaches for objects. AL5.3. Engages in simple games that involve interaction with caregivers (e.g., plays peek-a-boo).	AL5.4 Explores and uses materials in new ways. AL5.5 Engages in parallel play, where they play alongside other children without significant interaction. AL5.6 Imitates the actions of adults or older children (e.g., plays hide-and-seek, builds with blocks).	AL5.7. Initiates novel interaction or activity with others. AL5.8. Engages in pretend play (e.g., pretends to cook, care for dolls, or takes on roles like a doctor or firefighter).	AL5.9. Engages in cooperative play and collaborating with others in games and activities. AL5.10. Experiments with new ways to combine materials.	AL5.11. Develops more elaborate imaginative play that includes complex scenarios and storylines. AL5.12. Uses humor and laughter during play (e.g., tells a joke or a funny story). AL5.13. Uses a variety of voice inflections and facial expressions in play.	2.0.2.2.1. Develop ideas for media artworks using play and experimentation. *(2018 Minnesota K-12 Academic Standards in Arts Education: Media Arts)* 4.0.2.2.1. Invent and inhabit an imaginary place in a dramatic play or a guided drama experience. *(2018 Minnesota K-12 Academic Standards in Arts Education: Theater)* 4.0.3.5.2. Use body, voice and imagination during a guided drama experience. *(2018 Minnesota K-12 Academic Standards in Arts Education: Theater)* 0.5.0.2.2.2. Explore artistic ideas through intentional play. *(2018 Minnesota K-12 Academic Standards in Arts Education: Theater)*

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
AL6. Symbolic Play: Child uses sounds, actions, objects, and materials (paint, clay, blocks, etc.) to express ideas and understanding as well as to make new connections.	AL6.1. Makes noise by shaking, banging, and squeezing objects.	AL6.2. Makes a sound to represent or stand for an object or event (e.g., sounds of animals).	AL6.3. Acts out a sequence of related actions to recreate personal experiences (e.g., pretend to drink from an empty cup).	AL6.4. Uses one object to stand for another in play (e.g., lines up a row of chairs and communicates, "the bus is leaving").	AL6.5. Begins to intentionally plan how to use materials to express an idea (e.g., setting up a pretend store). AL6.6. Notices written letters and words represent objects, people, or events, and begins to use written letters or words in play.	1.0.2.3.2 2. Express an idea, feeling, or image through movement. *(2018 Minnesota K-12 Academic Standards in Arts Education: Dance)* 2.0.2.2.1 Develop ideas for media artworks using play and experimentation. *(2018 Minnesota K-12 Academic Standards in Arts Education: Media Arts)*
AL7. Originality: Child expresses ideas, thoughts and opinions and creates products that are unexpected, original, and relevant.	AL7.1. Shows excitement and pleasure when grasping, mouthing, and visually exploring objects.	AL7.2 Begins to play more intentionally with objects and materials (e.g., scribbling with crayons, stacking objects).	AL7.3. Creates and produces own ideas for play (e.g., assigning roles in dramatic play).	AL7.4. Engages in social, inventive play with materials.	AL7.5. Explores different materials, tools, and processes to create unique products of their own choosing.	4.0.2.3.2. Express original ideas in dramatic play or a guided drama experience. *(2018 Minnesota K-12 Academic Standards in Arts Education: Theater)* 0P.3.2.2.1 Design and build a structure to reduce the warming effect of sunlight on Earth's surface. *(2019 Minnesota K-12 Academic Standards in Science)*

Components AL8-12: Processing and Using Information

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
AL8. Working Memory: Child stores and retrieves information to use it purposefully.	AL8.1. Gazes between two objects or people. AL8.2. Understands that objects still exist when not visible (e.g., playing peek-a-boo, looking for an object under a cover).	AL8.3. Uses some prior experiences to build new knowledge and solve problems (e.g., stacking objects, sorting shapes). AL8.4. Recalls prior experiences to build new knowledge and solve problems.	AL8.5. Recalls a sequence of events. AL8.6. Recites simple familiar songs, rhymes, or a short sequence of letters or numbers.	AL8.7. Recalls and follows two-step directions. AL8.8. Recites more complex songs or rhymes from start to end.	AL8.9. Carries out the steps in daily routines on their own or with minimal support (e.g., putting toys away or brushing teeth). AL8.10. Participates in and contributes to discussions about familiar topics.	
AL9. Managing Attention: Child manages attention and thoughts.	AL9.1. Pays brief attention to environmental stimuli (e.g., caregivers' scent, voice, face, touch). AL9.2. Indicates a preference with physical or vocal response to caregivers.	AL9.3. Focuses attention on preferred items and experiences. AL9.4. Expresses thoughts, verbally or nonverbally, by responding to simple choices (e.g., points at preferred object/person). AL9.5. Anticipates and follows simple routines provided by caregivers.	AL9.6. Pays attention to both familiar and new objects and experiences. AL9.7. Chooses from a few options within a familiar environment. AL9.8. Accepts a familiar adult's offer of personalized support and/or redirection when facing difficult or unexpected situations.	AL9.9. Attends for longer periods of time through a broad range of adult-directed and child-initiated activities. AL9.10. Makes self-directed choices from a greater variety of options. AL9.11. Shows increasing ability to remember and follow simple two-step directions.	AL9.12. Maintains focus and perseverance on a task of interest for a minimum of five minutes independently. AL9.13. Begins to develop ways to think about and solve problems, seeking adult support as needed.	

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
AL10. Flexible Thinking: Child considers more than one possible outcome to a problem or question.	AL10.1. Begins to develop associations based on prior experience (e.g., sees bottle, anticipates feeding). AL10.2. Develops expectations based on prior experience. (e.g., expects to turn the page of a familiar book).	AL10.3. Says the rule but does not necessarily follow it.	AL10.4. Begins to understand that rules in different settings may be different (e.g., voice volume indoors versus outdoors). AL10.5. Tries an alternate solution if the first idea doesn't work.	AL10.6. Generates multiple answers to a prompt (e.g., helps make a list of things with wheels).	AL10.7. Considers other points of view and may change opinion or idea when faced with new information.	0P.2.1.1.1. Sort objects in terms of natural/human-made, color, size, shape, and texture, then communicate the reasoning for the sorting system. *(2019 Minnesota K-12 Academic Standards in Science)*
AL11. Problem Solving: Child notices problems, finds solutions, and persists through frustration or boredom.	AL11.1. Notices and pays attention to things that seem out of order (e.g., if a toy is blocking access to the giraffe, then they can push the toy aside).	AL11.2. Examines objects that don't respond as usual; attempts to make objects work as expected (e.g., putting a circle-shaped object into a square hole).	AL11.3. Attempts problem solving with toys and objects, not always successfully. AL11.4. Tries repeatedly to solve problems.	AL11.5. Makes guesses about how a problem might be solved and persists until the problem is solved with support from a caregiver (e.g., suggests each child takes a turn with an object).	AL11.6. Attempts to solve problems independently. AL11.7. Explains the possible solutions of problems and outcomes.	
AL12. Cause and Effect: Child begins to create theories for why things happen; can recognize how one thing relates to or affects another thing.	AL12.1. Recognizes that actions can cause specific responses (e.g., object makes noise when moved).	AL12.2. Notices similarities and differences. AL12.3. Predicts what will happen next based on prior experience.	AL12.4. Makes guesses based on what is seen, heard, smelled, etc. AL12.5. Identifies possibilities for why things happen.	AL12.6. Forms ideas about why things happen.	AL12.7. Draws conclusions and explains thinking.	0P.2.2.1.1. Identify and describe patterns that emerge from the effects of different strengths or different directions of pushes and pulls on the motion of an object. *(2019 Minnesota K-12 Academic Standards in Science)*

The Arts Domain

"The arts" include theater, dance, visual art, media arts, and music. They also include written and spoken poetry and storytelling. Participating in the arts provides opportunities for self-expression, sensory experiences and emotional regulation that can help people cultivate skills and the lifelong pursuit of artistic and creative endeavors. [27, 28, 29] Research indicates that engaging in certain artistic activities like drawing and music can support mood improvements, reductions in stress, and emotional regulation in children and adults.[27, 28, 29] Exploration of the arts begins early. The ECIPs are designed to broadly represent developmentally appropriate skills in the **Arts** domain. These skills help children explore a variety of ways to view and understand art and culture from around the world. Children benefit across domains concurrently by engaging in artistic practices.

Artistic skills like sewing and drawing engage the fine muscle development necessary for day-to-day living. Children develop hand-eye coordination through tasks like striking an instrument with a mallet or drumstick and other exercises that engage their interest. The more interested the child is in what they are doing, the more likely they will gain coordination skills through repeated engagement in the activity.

The **Arts** domain includes two components:

- Component A1-2: Exploring the Arts
- Component A3-4: Using the Arts to Express Ideas and Emotions

The subcomponents and indicators identified for the ages of birth through kindergarten entry address the specific expectations across the developmental spectrum.

- Infant learning is deeply tied to movement and exploration through their senses. Artistic stimulation at this stage primarily happens through viewing art in their environment, viewing and hearing books about art, artists, and culture, hearing music, tapping rhythm, early exploration with appropriate instruments, rhythmic or controlled movement, and appropriate creative expression.
- The indicators for toddlers include exploration with isolated art-making skills, for example, lacing a string through a bead, singing a melody, tapping a rhythm, or creative dress-up.
- The indicators for preschoolers focus on how children intentionally use the arts, develop the vocabulary to describe art they see around them, and begin to combine artistic elements.

Early childhood artistic expression should be authentic to the child at their developmental stage. Its focus is on developing the emerging skills a child uses within the art form and not about following directions to produce an end product. The child should have an abundance of opportunities to practice and build the individual skills needed to participate in an art form. The child must also be given the chance to develop individual skills, separate from other skills, before combining them. For example, a child should have opportunities to practice clapping a simple rhythm alone before being asked to pair the rhythm with a melody.

Depending on familial, cultural, and community values, development may look different for different children. Early childhood professionals have an important responsibility to learn from the child's family about the family's cultural and community values. Early childhood professionals and caregivers share responsibility for communicating their expectations and goals for individual children.

The ECIPs **Arts** domain follows the Minnesota Academic Standards: Kindergarten to prepare young learners for success later in school. The guidelines are written broadly to provide a foundation for a lifelong pursuit of arts and creativity, cultural contributions and recognition, and success using a wide variety of tools.

Domain: The Arts

Components A1-2: Exploring the Arts

These K standards come from the 2018 Minnesota K-12 Academic Standards in Arts Education unless otherwise noted.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years,	K Alignment
A1. Understanding Differences: Child distinguishes differences within and across artistic experiences.	A1.1. Attends to differences (e.g., contrast of light/dark, loud/quiet).	A1.2. Chooses to engage with a specific object, toy, or experience.	A1.3. Engages with a variety of artistic materials and experiences (e.g., gluing, drawing, or singing).	A1.4. Uses art-related vocabulary when discussing different artistic experiences (e.g., a stage, an easel, or a song).	A1.5. Describes differences in artistic experiences using art-related vocabulary (e.g., "I paint with a paintbrush. I draw with a crayon").	1.0.2.2.2. Demonstrate different locomotor and non-locomotor movements. 1.0.4.7.1. Identify movements using dance terminology. 1.0.4.8.1. Describe a movement that was observed in a dance. 2.0.3.5.1. Identify different ways media artworks are presented. 2.0.4.7.1. Identify components (such as sound, lighting, sequence, mood) in media artworks. 3.0.3.6.1. Make a musical choice while singing, playing instruments, or moving to explore the effects of musical elements. 3.0.4.7.1. Identify musical opposites while listening to and interacting with a variety of music. 4.0.2.4.2. Identify different types of sounds and movements in a guided drama experience. 4.0.2.4.3. Describe different design and technical choices for a guided drama experience. 4.0.3.5.2 Use body, voice and imagination during a guided drama experience. 5.0.4.8.1. Describe and distinguish between images and real objects.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years,	K Alignment
A2. Understanding Patterns: Child understands patterns in artistic media (e.g., repeating sounds, gestures, and materials).	A2.1. Imitates sounds, motions, and gestures.	A2.2. Shows preference for familiar sounds, motions, and gestures.	A2.3. Copies artistic patterns (e.g., repeating sounds, gestures and materials), with support.	A2.4. Adds onto their artistic patterns with sounds, music, motions, gestures, and materials.	A2.5. Creates their own artistic patterns while engaging in artistic experiences.	1.0.2.3.1. Improvise movement that starts and stops on cue. 1.0.4.7.2. Identify dance movements from a specific dance. 5.0.3.6.1. Identify artwork based on a theme or concept using artistic foundations.

Components A3-4: Using the Arts to Express Ideas and Emotions

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
A3. Artistic Choice-making: Child demonstrates engagement and choice in artistic experiences.	A3.1. Engages in artistic experiences (e.g., through song, music, or movement) with support from an adult.	A3.2. Uses different materials in different ways to create art (e.g., painting with a brush versus painting with fingers).	A3.3. Chooses to engage with artistic materials and experiences (e.g., paint, crayons, dramatic play, or music) when available.	A3.4. Demonstrates preference in artistic choices and expressions (e.g., colors or songs).	A3.5. Chooses to engage in artistic experiences with purpose (e.g., creating a picture for their caregiver) and describes artistic work when prompted.	1.0.2.2.1. Respond in movement to a stimulus/stimuli. 1.0.2.2.2. Demonstrate different locomotor and non-locomotor movements. 2.0.2.4.1. Make changes to the content of media artworks and share results. 3.0.3.6.1. Make a musical choice while singing, playing instruments, or moving to explore the effects of musical elements. 3.0.4.8.1. Identify which of two contrasting musical selections is preferred and tell why. 4.0.3.5.2. Use body, voice, and imagination during a guided drama experience. 5.0.2.2.2. Explore artistic ideas through intentional play. 5.0.2.4.1. Identify choices made in one's original artwork. 5.0.4.8.2. Select and explain reasons for personal preference.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
A4. Self-Expression: Child uses art for innovation and self-expression within the context of their culture.	A4.1. Responds physically or vocally (e.g., vocalization, facial expression, bouncing, or clapping) to an artistic experience (e.g., music, songs, rhythm, color, or storytelling), with or without caregiver support.	A4.2. Shows different reactions (e.g., smiling, laughing, bouncing, or clapping) when exposed to a variety of artistic experiences, with or without caregiver support.	A4.3. Expresses emotions while engaging in artistic experiences.	A4.4. Shares thoughts, feelings, and knowledge while creating art and/or interacting with the arts.	A4.5. Creates artistic experiences that represent thoughts, feelings, experience, and knowledge.	1.0.2.3.2. Express an idea, feeling, or image through movement. 1.0.5.9.1. Make a personal connection to a dance or movement. 1.0.5.9.2. Describe how movement feels when dancing. 2.0.5.9.1. Use personal experiences in creating media artworks. 3.0.2.3.1 Choose a musical sound to share. 3.0.3.6.1 1. Make a musical choice while singing, playing instruments, or moving to explore the effects of musical elements. For example: High/low; loud/soft; fast/slow. 4.0.2.3.2. Express original ideas in dramatic play or a guided drama experience. 4.0.4.7.1. Express an emotional response in dramatic play or a guided drama experience. 5.0.2.2.2 Explore artistic ideas through intentional play. 5.0.5.9.1. Create art that tells a story about a life experience. 5.0.5.10.1. Recognize that all humans make art.

Language, Literacy, and Communications Domain

Language, literacy, and communication skills begin in the very first months of life and rapidly develop within the first five years.[30, 31] Healthy development of young children's skills and abilities depends on interactions with families, early childhood professionals, caregivers, and other people in a child's life. Language development is foundational to learning across all other domains.[30] The expectations that are set out in the ECIPs recognize that young children are developing foundational knowledge and skills that will lead to more rigorous academic study in the areas of language, literacy, and communication in the elementary school years.

> *Many children around the world are multilingual. Recent estimates suggest that approximately 7,000 languages are currently spoken in the 196 countries worldwide.[32] Reported rates of multilingualism in the United States (20%) indicate that multilingualism is both common and increasing.[33] In Minnesota, multilingual children make up 21% of children ages birth to eight, a rate which has grown by 77% from 2000 to 2015.[34]*

Multilingualism is an asset in children and adults. When children are dual language learners, research tells us that the stronger the foundation in the home language, the better able children are to learn to understand and speak English—and to learn across all domains.[35]

Language instruction and description of the child's abilities should focus on students' communication ability in their classroom language, home language, or assistive language technology, rather than solely on the English language.

> *We now know that learning more than one language during the early childhood years does not delay the acquisition of English or impede academic achievement in English when all languages are well supported. Almost all young children can successfully learn more than one language, and do not need to give up their home language in order to learn English. In fact, there are significant linguistic, social, cognitive, as well as cultural advantages to early bilingualism.[35]*

The **Language, Literacy, and Communications** domain includes four components:

- Component LLC1: Receptive Language (Listening and Understanding)
- Component LLC2-3: Expressive Language (Communicating and Speaking)
- Component LLC4-8: Emergent Reading
- Component LLC9: Writing

The subcomponents and indicators identified for the ages of birth through kindergarten entry address the specific expectations across the developmental spectrum.

- For infants, indicators focus more on the children's receptive language and emerging communication skills with loved ones and caregivers. Interactions with books and early phonological awareness develop within the context of relationships with caregivers.

- Toddlers grow in their abilities to express their thoughts and feelings in words and phrases. Vocabulary in their home languages is emphasized, both in the receptive as well as the expressive mode. Phonological awareness is seen in the ways that children engage with word play, songs, and rhymes. As caregivers provide opportunities to interact with books and storytelling experiences, they help build initial concepts of print and early comprehension. Toddlers make initial attempts at writing as they scribble and draw with various writing tools.
- Preschoolers and others who participate in increasingly structured play-based activities show their rapidly expanding vocabulary in the ways they can respond to adult directions and engage in conversations. They express their wants and needs more clearly and with greater complexity as their understanding of grammar and syntax (the system of rules governing permissible word order in sentences) grows. They can reciprocate language, participating in a back-and-forth conversation with a peer or an adult. They show enjoyment in being read to and may read the pictures or retell the stories in books they know well. They begin to make sense of letters and print as they play with reading and writing and engage in word play with the sounds of language as they develop phonological awareness.

The domain of **Language, Literacy, and Communications** is foundational to children's development in all domains. The child's home language is an asset and critical for their learning in all of the other domains. Their development of language(s) and the ability to communicate with others helps children function socially and in their daily lives. Their growing vocabulary includes the language of other domains. They incorporate mathematical and scientific terminology as they learn more about the world around them. They grow in understanding of roles and responsibilities as they engage in dramatic play and imitate family life.

Certainly, reading and writing are important long-term goals in school experiences. The indicators in the ECIPs are designed to work toward those goals with the foundational skills appropriate for the youngest learners. It's important for professionals and caregivers to remember that literacy in the early years is built on the foundation of healthy brain development.[36, 37].

Depending on familial, cultural, and community values, development may look different for different children. Early childhood professionals have an important responsibility to learn from the child's family about the family's cultural and community values. Early childhood professionals and caregivers share responsibility for communicating their expectations and goals for individual children.

The ECIPs **Language, Literacy, and Communications** domain follows the Minnesota Academic Standards: Kindergarten to prepare young learners for success later in school.

Domain: Language, Literacy, and Communications

Component LLC1: Receptive Language (Listening and Understanding)

These K standards come from the 2020 Minnesota K-12 Academic Standards in English Language Arts.

Subcomponent	Birth to 6 Months	6-15 months	15-24 months	2-3 years	3-4 years	4-5 years	K Alignment
LLC1. Language Comprehension: Child understands the meaning of words and phrases (receptive) and uses those words and phrases to communicate or follow directions effectively (expressive).	LLC1.1. Turns towards and focuses on a nearby caregiver who is communicating. LLC1.2. Watches caregiver actions and gestures.	LLC1.3. Responds to nonverbal and verbal cues (e.g., cooing or babbling in response to caregiver). LLC1.4. Responds to conversation, questions, and one-word requests (e.g., caregiver asks, "Where's the object?" and the child looks or points towards the object).	LLC1.5. Understands and follows a one-step direction. LLC1.6. Responds to descriptive language about objects, actions, and concepts. (e.g., when asked, the child points to the blue object).	LLC1.7. Shows understanding of questions and statements about people, objects, ideas, and feelings. LLC1.8. Shows understanding of in/out, under/over, top/bottom, when requested (e.g., points to place or object when asked).	LLC1.9. Responds to direct questions and follows two-step directions. LLC1. 10. Shows understanding of vocabulary that indicates the location of person or thing (e.g., "Above" or "below") by communicating or pointing to objects based on verbal cues.	LLC1.11. Follows directions that involve three or more steps. LLC1.12. Responds to increasingly complex vocabulary that indicates location, such as "besides," "around," and "next to." LLC1.13. Responds appropriately to "wh-" questions or understands a question has been asked.	0.3.1.1. (C) Follow sequence of a story or discussion or steps in a process. 0.3.1.2. Confirm understanding of a text read aloud or information presented orally or through other media (ex. poems, rhymes, songs) by asking and answering questions about key details and requesting clarification if something is not understood.

Components LLC2-3: Expressive Language (Communicating and Speaking)

Subcomponent	Birth to 6 Months	6-15 months	15-24 months	2-3 years	3-4 years	4-5 years	K Alignment
LLC2. Social Conversation: Child communicates with others to express feelings, wants, and ideas to caregivers.	LLC2.1. Imitates and responds to facial expressions and caregiver sounds. LLC2.2. Initiates social interaction through vocalization (e.g., babbling, crying), facial expressions (e.g., smiles) or body movements (e.g., flapping their arms).	LLC2.3. Initiates shared attention to an object or an event. LLC2.4. Uses sounds, gestures, or actions to intentionally communicate and express needs and wants. LLC2.5. Shows reactions to objects, people, or activities (e.g., seeks comfort from a familiar adult in the presence of a stranger).	LLC2.6. Uses real or made-up words, signs, or gestures to express basic wants and needs (e.g., signs for “more”). LLC2.7. Responds with gestures, sounds, or words to extend interactions with others.	LLC2.8. Uses an increased number of descriptive sounds, signs, words, or phrases to express desires and interests to others. LLC2.9. Begins to ask "why" questions. LLC2.10. Initiates and responds to conversations with others.	LLC2.11. Initiates or extends conversations with varied comments or questions. LLC2.12. Communicates clearly enough to be understood by the majority of those who speak the same language.	LLC2.13. Uses verbal or nonverbal communication to understand and solve problems with adults or other children. LLC2.14. Asks and answers questions to seek help or get information.	0.2.2.2. Share personal perspective, identity and voice, verbally or visually. 0.2.4.1. State of personal opinion for the purpose of sharing, verbally, visually or in written form, with support and guidance. 0.2.5.1. Make a statement about a topic and offer one or two details about the topic, verbally, visually or in written form, with support and guidance. 0.2.5.2. Verbally or visually respond to a story, with support and guidance. 0.2.6.1. Tell a story about a personal experience or that of a character, verbally, visually or in written form. 0.2.7.1. Ask questions to participate in shared research and writing projects. 0.3.1.1. (A and B) a. Help create and follow agreed-upon norms for a discussion (e.g., speaker norms, listener norms, participation norms) respectful of culture. b. Participate as a speaker and listener, and continue exchange of ideas through multiple exchanges. 0.3.2.1. Speak audibly and express thoughts, feelings and ideas clearly.

Subcomponent	Birth to 6 Months	6-15 months	15-24 months	2-3 years	3-4 years	4-5 years	K Alignment
LLC3. Vocabulary and Syntax: The child understands vocabulary and culturally-specific ways for putting words together in their home language and/or English.	LLC3.1. Coos and gurgles, makes some vocal sounds. LLC3.2. Practices producing and combining sounds or signs (e.g., babbling).	LLC3.3. Uses vocalizations, signs, and gestures to represent concepts (e.g., signing for more milk). LLC3.4. Names a few objects, animals, people, or activities with words or signs (e.g., first word). LLC3.5. Imitates familiar or environmental sounds (e.g., animal sounds).	LLC3.6. Constructs two-word sentences (object and action). LLC3.7. Shows rapid growth in quantity of words or signs used in conversation or play.	LLC3.8. Uses increasingly complex and varied vocabulary. LLC3.9. Constructs simple sentences with more than two words (e.g., "I want water"). LLC3.10. Begins or increases use of verbs or action words in everyday conversation.	LLC3.11. Uses increasingly longer sentences to share information about experiences with people, places, or things. LLC3.12. Uses more new words that more precisely name and describe objects. LLC3.13. Applies language rules to words or sentences, accurately or inaccurately (e.g., "We *goed* to the store").	LLC3.14. Uses increasingly complex sentences to describe relationships between two or more things or events. LLC3.15. Uses increasingly specific and precise words to name objects and their features and functions. LLC3.16. Uses words and longer sentences to describe events in sequence (e.g., storytelling).	0.1.4.4. Describe the connection between two pieces of information, events, people or ideas in informational text, with prompting and support. 0.1.8.2. Ask and answer questions about unfamiliar vocabulary in informational text read aloud. 0.2.6.2 Correctly order beginning, middle and end of a story, with support and guidance. 0.3.2.1 Speak audibly and express thoughts, feelings and ideas clearly.

Components LLC4-8: Emergent Reading

Subcomponent	Birth to 6 Months	6-15 months	15-24 months	2-3 years	3-4 years	4-5 years	K Alignment
LLC4. Engagement: Child participates and has sustained attention for interactions that involve print.	LLC4.1. Maintains some shared attention while being read to and/or looking at pictures.	LLC4.2. Makes sounds while looking at text or images. LLC4.3. Engages with books and other print materials (e.g., child brings book to caregiver for reading).	LLC4.4. Points to a few pictures in print on their own or in response to a question from a caregiver. LLC4.5. Imitates reading.	LLC4.6. Makes a connection between an object in print and an object in real life. LLC4.7. Asks for or picks out favorite texts. LLC4.8. Focuses on a book while listening to the reader.	LLC4.9. Points to both pictures and text when engaging with print books (e.g., points to letters in their name). LLC4.10. Shows persistence with longer and more complex narratives and informational text (e.g., maintains attention throughout read aloud). LLC4.11. Offers a personal response to stories read aloud.	LLC4.12. Actively participates in reading activities with enjoyment and purpose. LLC4.13. Retells familiar stories using a book as a guide. LLC4.14. Initiates shared and solitary book use. LLC4.15. Requests information and access to new literacy materials. LLC4.16. Notices environmental print (e.g., classroom or building signs, food logos) and finds meaning behind it.	0.1.1.0. Demonstrate understanding of the basic features of print: a. Follow words from left to right, top to bottom and page by page. b. Recognize and name all uppercase and lowercase letters of the alphabet. c. Understand that words are separated by spaces in print 0.1.2.3. Choose and read texts that explore personal identity and interests, with prompting and support. 0.1.4.1. Ask and answer questions about key details in a text, with prompting and support. 0.1.4.2. Identify the topic of a text, with prompting and support. 0.1.4.3. Identify characters and setting, in a literary text, with prompting and support. 0.1.4.4. Describe the connection between two pieces of information, events, people or ideas in informational text, with prompting and support. 0.1.5.2. Recognize the difference between literary and informational text, through listening or reading. 0.1.5.3. Recognize the connection between illustrations and text. 0.1.6.3. Recognize common types of text (e.g., storybooks, informational, poems) through listening or reading.

Subcomponent	Birth to 6 Months	6-15 months	15-24 months	2-3 years	3-4 years	4-5 years	K Alignment
LLC5. Phonological Awareness: Child hears (as able) and understands the separate sounds that make up language.	LLC5.1. Looks at the caregiver's lips and face when the caregiver is speaking. LLC5.2. Demonstrates awareness of sounds in the environment and spoken language from caregivers (e.g., turns head when phone rings).	LLC5.3. Shows interest in songs, rhymes, chants, and stories. LLC5.4. Notices and listens to sounds and words from home language and if different, the language of care. LLC5.5. Imitates sounds heard in the environment.	LLC5.6. Identifies and produces sounds heard in the environment. LLC5.7. Participates in songs, rhymes, chants, and stories.	LLC5.8. Repeats different sounds in familiar words or rhymes (e.g., sings words in familiar songs). LLC5.9. Distinguishes between spoken language and environmental sounds. LLC5.10. Recalls previously heard words, songs, and rhymes (e.g., sings familiar song while playing).	LLC5.11. Shows interest in and associates sounds with words (e.g., child shows reaction when hearing the first letter of their name). LLC5.12. Plays with sounds, words, and language (e.g., rhyming and matching first sounds in words) with or without attention to meaning.	LLC5.13. Identifies and continues sound patterns in words. LLC5.14. Produces rhyming words or words with the same beginning sound, when prompted. LLC5.15. Identifies individual sounds or segments (parts) of words when prompted (e.g., Identifying first part of the word “cupcake”).	0.1.1.1. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). 0.1.1.2. Know and apply grade-level phonics and word analysis skills in decoding words. 0.1.1.3. Read decodable texts accurately, with guidance and support. 0.1.8.1 Recognize rhythm, alliteration and repeated lines in a story, poem or song read aloud. 0.2.1.2. Demonstrate one-to-one letter-sound correspondence.

Subcomponent	Birth to 6 Months	6-15 months	15-24 months	2-3 years	3-4 years	4-5 years	K Alignment
LLC6. Letter Recognition: Child recognizes the shapes of letters and recalls the names of letters.	LLC6.1. Pays attention to familiar objects, images or people.	LLC6.2. Shows interest in familiar objects, images or people.	LLC6.3. Recognizes and attempts to label familiar objects, images, or people.	LLC6.4. Names familiar colors, shapes, and objects.	LLC6.5. Points to or names some shapes, colors, letters, and other familiar symbols (e.g., first letter in child's name).	LLC6.6. Names familiar letters (e.g., letters in child's name) and produces letter sound (e.g., "ef" for F). LLC6.7. Recognizes (verbally or nonverbally) the difference between letters and other symbols (e.g., a square versus the letter "T"). LLC6.8. Names some objects, shapes, colors, letters, numbers, and symbols with increasing fluency.	0.1.1.0. Demonstrate understanding of the basic features of print: b. Recognize and name all uppercase and lowercase letters of the alphabet. 0.2.1.0. Print many uppercase and lowercase letters.

Subcomponent	Birth to 6 Months	6-15 months	15-24 months	2-3 years	3-4 years	4-5 years	K Alignment
LLC7. Concepts of Print: Child understands the fundamentals of print, such as orientation, organization, and features of print in the child's home language and/or English.	LLC7.1. Explores books and other print materials (e.g., grasping and bringing a book to mouth to suck and chew).	LLC7.2. Attempts to hold print materials (e.g., a book) with both hands. LLC7.3. Turns the pages of print materials (e.g., board books).	LLC7.4. Turns the print materials right side up.	LLC7.5. Identifies the front and back of a print material. LLC7.6. Begins to understand that print has meaning (e.g., asks "what does this say?").	LLC7.7. Looks at and shares books and other print materials with others from front to back.	LLC7.8. Names some parts of a print material (e.g., cover and pages of a book). LLC7.9. Demonstrates knowledge and understanding of print orientation in English (e.g., left to right and top to bottom) and/or languages that are used in the home or community. LLC7.10. Points to words or symbols and attempts to read.	0.1.1.0. (A). Demonstrates understanding of the organization and basic features of print. a. Follow words from left to right, top to bottom and page by page. 0.1.5.1. Recognize orientation (front cover, back cover, title) of print text and navigation of digital text. 0.1.6.1 Define the role of an author and illustrator in telling a story. 0.1.6.3. Recognize common types of text (e.g., storybooks, informational, poems), through listening or reading.

Subcomponent	Birth to 6 Months	6-15 months	15-24 months	2-3 years	3-4 years	4-5 years	K Alignment
LLC8. Comprehension of Text: Child understands the events and order of events in a story or text in one or more languages.	LLC8.1. Demonstrates response to face and voice interactions from others (e.g., moves head and follows gaze).	LLC8.2. Shows interest in stories read out loud (e.g., cooing, babbling). LLC8.3. Points to or gestures toward characters during reading.	LLC8.4. Demonstrates understanding (e.g., focused attention), when stories and texts are read or told. LLC8.5. Communicates (verbally or nonverbally) about characters and events during reading or storytelling. LLC8.6. Relates objects in stories or texts to objects in the real world.	LLC8.7. Asks and answers questions during reading or storytelling. LLC8.8. Acts out, draws, or describes parts of a story or text. LLC8.9. Identifies and describes basic information from the text of a print material (e.g., characters, objects, and events).	LLC8.10. Retells important information from a story or text. LLC8.11. Tells simple stories and experiences from their own life. LLC8.12. Uses vocabulary related to key concepts and central themes from a story or text.	LLC8.13. Predicts what will happen next in a story using language or drawings. LLC8.14. Retells a story or events from text using a variety of media, materials, and props (e.g., acts out the story using dress-up). LLC8.15. Describes conflict and conflict resolution themes from a story or text (e.g., “The rabbit got away from the farmer”).	0.1.2.1. With guidance and support, read and monitor understanding of grade-level text, self-correcting as needed, using strategies including, but not limited to, decoding, asking questions and making connections. 0.1.4.1. Ask and answer questions about key details in a text, with prompting and support. 0.1.4.2. Identify the topic of a text, with prompting and support. 0.1.4.3. Identify characters and settings in a literary text, with prompting and support. 0.1.5.2. Recognize the difference between literary and informational text, through listening or reading. 0.2.6.2. Correctly order beginning, middle and end of a story, with support and guidance.

Component LLC9: Writing

Subcomponent	Birth to 6 Months	6-15 months	15-24 months	2-3 years	3-4 years	4-5 years	K Alignment
LLC9. Writing Conventions: Child understands that words can be written, and that writing has meaning.	LLC9.1. Grasps and squeezes a toy or object. LLC9.2. Uses hands or feet to make a physical connection with objects or people.	LLC9.3. Coordinates eye and hand movements and has control over grasp.	LLC9.4. Uses small muscle movement to do simple tasks (e.g., picking up small items). LLC9.5. Uses writing tools (e.g., crayons or drawing boards).	LLC9.6. Uses scribbles, shapes, or pictures to represent thoughts and ideas. LLC9.7. Demonstrates interest in writing to communicate (e.g., may imitate typing on a device).	LLC9.8. Uses letter-like symbols to make letters or words in home language and/or English. LLC9.9. Uses symbols and drawing to represent writing.	LLC9.10. Writes own name and words about familiar and interesting things. LLC9.11. Understands the different purposes for writing (e.g., stories, lists, or labels). LLC9.12. Uses invented spelling (e.g., chooses incorrect or unusual letters to spell words). LLC9.13. Uses words, pictures, letters, or letter-like symbols to communicate information and ideas, or to create original stories.	0.2.1.1. Recognize that words are represented in written language by specific sequences of letters, which are separated by spaces, and put in a specific order to create a sentence. 0.2.2.1. Write routinely (may include a combination of drawing, dictating and writing), with support and guidance. 0.2.3.1. Plan and draft writing (may include a combination of drawing, dictating, and writing) and revise to strengthen writing in a shared setting.

Mathematics Domain

Young children, even infants, play with mathematical ideas. Children's development of mathematical understanding begins in the very first months of life and continues to grow and expand as they interact with others and the world around them. Babies begin to see patterns in familiar caregiving routines and attend to objects and sounds. Toddlers begin to understand the words "one" and "more" and move through their world with growing spatial understanding. Preschoolers begin to make sense of numbers as they play with counting. Their math understanding is directly related to their playful explorations of items such as blocks, rocks, water, sticks, food, sand, puzzles, games, and more.

> *Math exploration and learning happen everywhere. Children learn math skills in their early learning setting, but also in places like the grocery store, playground, and in their home. Infants and toddlers learn about quantity as an adult counts two apples to put into their shopping cart. They develop early spatial skills as adults push them on the swings or as they go down a slide. At home, math can be found from playtime to mealtime. For example, a caregiver says as he prepares lunch, 'Your sandwich is a square. If we cut it in half, it makes two rectangles.'*[38]

The expectations that are set out in the ECIPs **Mathematics** domain represent young children's acquisition of skills that will lead to mathematical understanding. Adults play a critical role in helping children see themselves as capable of doing math.[39] The foundational knowledge and skills that young children acquire, including a sense of quantity, comparison, and change, will lead to more complex mathematical skills learned in elementary school and beyond. The alignment of the ECIPs with the corresponding Minnesota Academic Standards: Kindergarten is included.

The **Mathematics** Domain includes five components:

- Components M1-7: Number Knowledge
- Component M8: Measurement
- Component M9: Patterns
- Components M10-12: Geometry and Spatial Thinking
- Components M13-15: Data Analysis

The subcomponents and indicators identified for the ages of birth through kindergarten entry address the development of mathematical concepts in a predictable sequence. While the ECIPs assign age bands to each skill, it is important to note that all development occurs on a continuum and children will acquire these skills at different ages. If a child is not ready for the skill listed in their age group, support their learning by building the skills listed for the prior age group.

- For infants, indicators focus on the children's emerging understanding of patterns and predictability as they anticipate familiar routines, spatial awareness as they respond to

objects and sounds, and recognition of similarities and differences among people and objects.

- Toddlers are growing in their mobility and ability to explore the environment. The indicators focus on the imitation of counting and early understanding of one-to-one correspondence, awareness of full and empty, following simple patterns, emerging awareness of shape and place in space, and matching and sorting.
- The growing language capabilities of preschoolers include their use of an ever-increasing vocabulary of mathematical terms to describe and make sense of their world. They recite numbers and count objects with one-to-one correspondence to higher quantities. Preschoolers identify geometric shapes and use the comparative language of measurement. Developing sorting strategies that grow in complexity and duplicating and creating patterns using various rules are skills best developed within the context of preschoolers' play.

Depending on familial, cultural, and community values, development may look different for different children. Early childhood professionals have an important responsibility to learn from the child's family about the family's cultural and community values. Early childhood professionals and caregivers share responsibility for communicating their expectations and goals for individual children.

While the terminology and concepts in the domain of mathematics are important and specific, they are interrelated with children's development in other domains as well. There is a significant overlap between **Mathematics** and the domain of **Language, Literacy, and Communications**.

> *Math skills are connected to other learning domains, such as language and social and emotional development. When infants and toddlers feel emotionally and physically safe, they are more confident to explore their world, which supports the development of math skills. This might be experimenting with how tall they can build a tower before it falls or climbing the steps to go down a slide. Responsive adults provide math language to describe the concepts children are exploring.*[37]

Children's interest and understanding of mathematics is best supported by showing the importance of mathematics in daily life. As children investigate mathematical concepts in hands-on experiences, they grow in their approaches to learning. They solve problems, think creatively, and apply concepts. Their social and emotional skills are enhanced as they develop greater confidence as learners and work collaboratively with others. Mathematics and science are linked easily in a rich, engaging early childhood environment where children experiment with items in their environments (e.g., water, sand, construction materials, living things), observe what is occurring, and collect information.

The ECIPs **Mathematics** domain follows the Minnesota Academic Standards: Kindergarten to prepare young learners for success later in school. The indicators in the ECIPs are designed to build children's mathematics knowledge and skills; these goals are met most successfully as professionals and caregivers interact with children throughout every day.

Domain: Mathematics

Components M1-7: Number Knowledge

These K standards come from the 2022 Minnesota K-12 Academic Standards in Mathematics.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M1. Counting in the Standard Order (this is often referred to as rote counting): The child communicates numbers in the correct standard order by memory (does not need to understand quantity).	M1.1. Releases one item to reach for another.	M1.2. Says or signs at least one number. M1.3. Imitates counting.	M1.4. Says or signs number words, both in the correct sequence and out of sequence by memory. M1.5. Shows interest in counting or number-oriented play.	M1.6. Says or signs numbers correctly up to 10, with or without objects. M1.7. Notices numbers or numerals in the environment. M1.8. Recognizes when others make errors while saying or signing a number sequence. M1.9. Begins to make number-like forms, such as a line or circle.	M1.10. Says or signs numbers forward up to at least 20, with some mistakes. M1.11. Says or signs numbers backwards from 10. M1.12. Names the next number for numbers up to 10 (e.g., using a number line, can answer the question, "What number comes after 4?"). M1.13. Reads some numbers from 0 to 10, saying number words in the correct order, with some mistakes possible. M1.14. Names or says some numbers from 0 to 10, saying number words in the correct order, with some mistakes possible.	0.3.5.4. Count forward, with and without objects, to at least 31. Count backward from 20. (MP6) ☼ 0.3.5.2. Count collections of objects up to 31 by grouping in 10s using ten-frames, cups, or other tools. (MP6, MP7) ✣ $ ☼

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M2. One-to-One Counting (also referred to as one-to-one correspondence): The child uses counting to identify how many items are in a set and says, points to, or gestures to identify one number at a time (each item is counted once and only once).			M2.1. Uses any number to signify "how many" while clearly not knowing what that number word means (e.g., when asked, "How many?" child replies "five" without counting, looking at, or knowing how to count to five).	M2.2. Demonstrates and uses one-to-one counting to count up to four items (e.g., a child is asked to answer how many blocks are in the pile, and then touches each item once while counting).	M2.3. Demonstrates and uses one-to-one counting to count with sets up to 10 items.	0.3.5.3. Read, write, compare, order, and represent whole numbers from 0 to at least 31 (with 0 representing the count of no objects) to answer the question, “how many?” Representations may include numerals, pictures, real objects, picture graphs, spoken words and manipulatives, such as connecting cubes. The numbers from 11 to 19 are composed of a 10 and one, two, three, four, five, six, seven, eight or nine ones. (MP4, MP8) ✣

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M3. Cardinality: The child identifies the exact number of items in a set and understands that the last number said is the number of objects in the set.		M3.1. Responds to requests to give a small quantity of items (e.g., one, two) with some mistakes.	M3.2. Gives one to two and only one to two items upon request.	M3.3. Identifies a correct quantity (e.g., three or four objects) with a number word (e.g., "three" or "four") up to four items. M3.4. Gives the correct number of items consistently, when asked, up to four.	M3.5. Identifies a correct quantity (between four and 10 items) with a number word (e.g., or "four" or "six"). M3.6. Gives the correct number of items consistently when asked, for between four and 10 items. M3.7. Identifies that the final number word used when counting out an item set represents the exact number of items in the set. M3.8 Understands the number of objects in a set does not change and is the same regardless of the arrangement or order in which they were counted (e.g., when there are five different animals in a group, the quantity is the same whether they are in a circle or a line).	0.3.5.1. Recognize that a number can be used to represent how many objects are in a set or to represent the position of an object in a sequence. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number with one and only one object. Understand that the last number said tells the number of objects counted. Understand that each successive number refers to a quantity that is one more. Name the position of an object in a sequence (ordinal count). (MP1, MP6) ✣ ☼

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M4. Assigning Number Words and Numerals to Quantities (numeral is another word for a number symbol, such as “2”)**:** The child assigns verbal or signed number words and numerals to quantities.	M4.1. Understands that a number word identifies, “How many?”	M4.2. Understands that a number word refers to a specific quantity without knowing the exact quantity.	M4.3. Associates a small quantity (e.g., one or two objects) with a number word or number (e.g., “one” or “two”) up to two.	M4.4. Associates a quantity (e.g., two or three objects) with a number word or number (e.g., “two” or “three”) up to four. M4.5. Names small sets quickly and accurately, labeling groups as “two” or “three,” up to three. This skill is often referred to as “subitizing.”	M4.6. Associates numerals (e.g., three or four) with the correct number word or number (e.g., “three” or “four”) up to 10. M4.7. Names small sets quickly and accurately, labeling groups as "four" or "five" (e.g., when a child sees five dots on a die, they know without counting that it is “five”). This skill is often referred to as “subitizing.”	0.3.5.1. Recognize that a number can be used to represent how many objects are in a set. (MP1, MP6) ✣ ☼

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M5. Comparing Numbers and Quantities: The child uses organizing strategies to know how many objects they have.	M5.1. Grasps one object and reaches for another.	M5.2. Groups a few items into categories (e.g., color, size, shape).	M5.3. Compares two sets of up to four objects accurately using terms like “more” and ”less” or “a little” and “a lot.”	M5.4. Uses terms like “more” and “less,” “bigger” and “smaller,” and “a little bit” and “a lot” to refer to approximate quantities.	M5.5. Estimates quantities verbally without counting, although inconsistently and sometimes with mistakes.	0.3.5.2. Count collections of objects up to 31 by grouping in 10s using ten-frames, cups, or other tools. (MP6, MP7) ✣ $ ☼ 0.3.5.5. Find a number that is 1 more or 1 less than a given number. (MP7, MP8) 0.3.5.6. Solve and represent a variety of addition and subtraction contextual situation types using objects, drawings, mental images or equations within 10. (MP4, MP5) $ µ

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M6. Numerical Relations and Operations: The child creates a set or subset based on a rule and can combine or separate sets.	M6.1. Uses signs like “more” to reference quantity.	M6.2. Uses signs or words like “more” to reference quantity.	M6.3. Notices when the quantity of a set of up to four objects has increased or decreased.	M6.4. Combines or separates items (or sets of objects) to make another number. M6.5. States the number that comes before or after (up to the number five).	M6.6. States the number that comes before or after (up to the number 10). M6.7. Understands that a quantity changes (increases or decreases) when a set of objects (more than four and up to 10) are combined or separated. M6.8. Names the next number in a set of up to 10 items without recounting, even when the set isn’t visible. M6.9. Produces different sets that equal a specific sum of up to 10 (e.g., both “two and three” and “one and four” equal five).	0.3.5.7. Compose and decompose numbers less than or equal to 10 into pairs in more than one way with objects and pictures. Record each decomposition with a drawing or equation. (MP7) 0.3.5.8. Fluently add and subtract within 5. (MP2)

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M7. Ordinality: Ordinality indicates the order or position of something in a series. The child matches verbal or signed number words and numerals to a position in a sequence.		M7.1. Orders a few objects by size with assistance.	M7.2. Identifies the first or second item in a sequence upon request.	M7.3. Uses ordinal position sequencing terms (e.g., "first," "most," "last," "before"). M7.4. Orders a few objects by size without assistance.	M7.5. Recognizes that a number word can be used to represent a position in a sequence (e.g., puts a specific object first or second when making a pattern).	0.3.5.1. Recognize that a number can be used to represent how many objects are in a set or to represent the position of an object in a sequence. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number with one and only one object. Understand that the last number said tells the number of objects counted. Understand that each successive number refers to a quantity that is one more. Name the position of an object in a sequence (ordinal count). (MP1, MP6) ✣ ☼

Component M8: Measurement

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M8. Measurement: Child recognizes and makes comparisons of measurable attributes (e.g., length, height, width, area, volume, physical distance, time duration).	M8.1. Adjusts reaching behavior to distance of object.	M8.2. Experiments with "full" and "empty" (e.g., filling and emptying buckets/cups). M8.3. Orders a few objects by size with support.	M8.4. Brings objects closer together to compare them. M8.5. Imitates using an object to measure another object. M8.6. Uses language or gestures to describe "full" and "empty."	M8.7. Begins to understand the need to use standardized units, common and unconventional, to measure. M8.8. Demonstrates understanding of measurement terms (e.g., "longer" and "shorter" or "farthest" and "closest") by saying or pointing.	M8.9. Uses standardized units, common and unconventional, to measure. M8.10. Compares and orders more than two items in some way (e.g., shortest to longest, smallest to biggest). M8.11. Uses comparison vocabulary (e.g., "longer" and "shorter," "taller" and "shorter," and "farthest" and "closest") with both discrete sets (e.g., blocks, books) and continuous properties (e.g., water, sand, height).	0.2.3.1. Compare objects with a measurable attribute in common, to see which object has "more of," "less of" or the "same as" the attribute and explain the reasoning. (MP3, MP5) ✣ $ ☼ 0.2.3.2. Describe several measurable attributes of objects such as length and weight. (MP4, MP6) ✣ ☼

Component M9: Patterns

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M9. Repeating Patterns: The child identifies, copies, creates, and describes sequences in objects, colors, numbers, or sounds with sequences that increase, decrease, and become more complex.	M9.1. Anticipates familiar routines. M9.2. Notices changes in patterns (e.g., emotional reaction when preparation for feeding takes longer than usual).	M9.3. Carries out steps of familiar routines (e.g., mealtime, handwashing). M9.4. Participates in familiar simple patterns (e.g., sound, body movement sequence with familiar songs).	M9.5. Participates in a new simple pattern that is modeled (e.g., sound, body, color, size, movement).	M9.6. Recognizes repeating patterns. M9.7. Copies simple existing patterns. M9.8. Extends a simple pattern.	M9.9. Uses words or pictures to describe a simple pattern. M9.10. Applies a simple pattern rule to different materials or modes (sound, body, color, size, movement). M9.11. Copies an example of a complex pattern.	0.3.7.1. Recognize, create, complete, and extend simple patterns using shape, color, size, number, sounds, and movements. Patterns may be repeating, growing or shrinking. (MP1, MP7) ✣ # ☼ 0.3.7.2. Recognize patterns in counting. Skip count by 10s starting at zero up to 100. (MP7) ✣ $ ☼

Components M10-12: Geometry and Spatial Thinking

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M10. Knowledge and Visualization of Shapes: The child recognizes shapes, can describe two-dimensional (2D) and three-dimensional (3D) shapes, and can manipulate shapes with purpose.	M10.1. Notices high contrast patterns, shapes, or lines (e.g., pays attention to black and white patterns or images on objects).	M10.2. Shows interest in shapes and spatial relationships (e.g., rolling a ball, stacking small objects, attempting to fit pieces in puzzles).	M10.3. Begins to recognize 2D and 3D shapes (e.g., circles, spheres, squares, and cubes) by naming or sorting objects. M10.4. Begins to recognize 2D and 3D shapes (circles, spheres, squares, and cubes) by fitting objects into spaces (e.g., puzzles).	M10.5. Recognizes 2D and 3D shapes in the environment. M10.6. Points to or names familiar 2D and 3D shapes (circles, spheres, squares, cubes, triangles) accurately when asked.	M10.7. Begins to describe the attributes (round, straight, curved, etc.) that define 2D and 3D shapes, including sides and corners regardless of the shape's size or position (e.g., notices that "this block won't roll because it's not round"). M10.8. Puts together (composes) and takes apart (decomposes) shapes.	0.2.4.2. Identify and compare two- and three- dimensional shapes such as squares, circles, triangles, rectangles, trapezoids, hexagons, cubes, cones, cylinders, and spheres using informal language to describe their similarities, differences, parts and other attributes. (MP2) ✣ ☼ 0.2.4.3. Compose, decompose and name simple shapes. Recognize shapes regardless of their overall size and orientation. (MP1, MP2) µ

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M11. Transformations and Symmetry: The child locates and manipulates shapes in their environment.	M11.1. Attends and responds to moving objects and sounds in their environment.	M11.2. Develops an increasing ability to change positions and move their body from place to place. M11.3. Demonstrates awareness of differences between over and under, up and down, in and out. M11.4. Rotates, flips, or turns an object when they realize the object doesn't fit in a defined space.	M11.5. Adjusts position and movement of own body relative to objects (e.g., moves around objects). M11.6. Explores how objects fit together in their environment. M11.7. Rotates objects to accurately fit through holes and spaces.	M11.8. Puts together (composes) and takes apart (decomposes) shapes to create new shapes.	M11.9. Recognizes and creates shapes that have symmetry. M11.10. Recognizes that complex shapes need to be rotated, flipped, or turned around before objects fit together (e.g., puzzle pieces).	0.2.4.4. Describe objects in the environment using names of shapes. Describe the relative positions of these objects using terms such as above, below, beside, in front of, behind and next to. (MP1, MP6) ✣ ☼

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M12. Location, Spatial Relationships and Landmark Use: The child recognizes where a person or object is in relation to other people or objects.	M12.1. Shows preference for familiar or novel toys, objects, and people.	M12.2. Recognizes familiar objects from different perspectives.	M12.3. Begins to understand personal location relative to landmarks or another person's location.	M12.4. Uses terms to explain distances and lengths (e.g., "Near" and "far," "under" and "above," and "front" and "back"). M12.5. Uses a simple map of a visible area to locate placement, with verbal cues.	M12.6. Recognizes and describes the position of objects in their environment. M12.7. Produces a simple map.	0.2.4.4. Describe objects in the environment using names of shapes. Describe the relative positions of these objects using terms such as above, below, beside, in front of, behind and next to. (MP1, MP6) ✣ ☼

Components M13-15: Data Analysis

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M13. Sorting: The child recognizes that objects can be sorted by attributes (e.g., shape, color, texture, size).	M13.1. Uses senses to interact with objects in their environment (e.g., mouthing a toy or object). M13.2. Recognizes differences between familiar and unfamiliar (e.g., faces).	M13.3. Begins to recognize similarities or differences of novel objects.	M13.4. Matches items based on attributes meaningful to the child (e.g., sorting based on favorite color). M13.5. Imitates sorting.	M13.6. Sorts objects based on an observable attribute, with or without assistance (e.g., shape, color, texture, size). M13.7. Demonstrates understanding that attributes are measurable (e.g., counting small objects of same color).	M13.8. Says or shows the attribute used for sorting or comparing objects. M13.9. Sorts objects by using flexible rules (e.g., sort first by color, then sort the same objects by size).	0.2.4.1. Sorts objects using characteristics such as shape, size, color and thickness. (MP1, MP6) ✣ ☼

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M14. Collects, Classifies, and Organizes Information: The child collects, classifies, and organizes data based on distinguishing characteristics (quantity, attributes).				M14.1. Participates in simple data collection with support from a caregiver (e.g., watches caregiver chart answers to question of the day). M14.2. Collects information about one or more attributes (e.g., how many children like one food versus another).	M14.3. Helps to chart or graph information as part of group activity (e.g., writes X on chart to indicate choice between 2 items). M14.4. Sorts information by one or more attributes with assistance from a caregiver (e.g., creates a chart of animals that are awake at night versus day). M14.5. Collects and shares data independently (e.g., asks peers about preferences for group chart activity).	0.1.1.2. Organize objects, draw pictures, or use tally marks to represent data and communicate observations. (MP3, MP6) # µ

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
M15. Describes and Uses Data: The child describes data and uses it to solve problems or ask questions.				M15.1. Identifies patterns, differences, or similarities of information displayed (e.g., on a chart). M15.2. Uses language words, pictures, or signs to describe those patterns, differences, or similarities of data.	M15.3 Describes differences in data (e.g., more children like apples than bananas). M15.4. Uses data to answer questions and solve problems (e.g., "If there are 10 name cards on the name chart, we need 10 chairs at the table").	0.1.1.1. Notice and describe patterns in data-rich situations. (MP1, MP7) ✣ # ☼ 0.1.1.2. Organize objects, draw pictures, or use tally marks to represent data and communicate observations. (MP3, MP6) # µ

Physical and Movement Development Domain

The expectations that are set out in the **Physical and Movement Development** domain of the ECIPs show the ways that children demonstrate typical developmental physical capabilities at different stages. The indicators in this domain guide professionals and caregivers on how to best support children in their growth related to physical development.

Early childhood is a time for incredible changes in children's physical development. Children's physical and movement development is closely linked to their development in other domains. For instance, when an infant develops the ability to move their body to reach an object, they may show their delight to a caregiver, which further develops the emotional connection between them. Research has demonstrated that physical activity boosts educational outcomes in preschool-aged children.[40, 41, 42] The physical health of a child influences the whole child, impacting learning, social and emotional well-being, and realization of the child's full potential.

> *When children are engaged in self-directed learning, watch them—they are always moving. There is always a physical aspect. Why? Physical activity is hard-wired into children. Trying to separate it from academic development is pointless; the two are inextricably linked.*[41]

The **Physical and Movement Development** domain includes two components:

- Components P1-5: Gross Motor
- Components P6-7: Fine Motor and Self-Care

The subcomponents and indicators identified for the ages of birth through kindergarten entry address the specific expectations across the developmental spectrum.

- The indicators for infants include the ways they move with purpose, how they begin to move through space, and how they reach and grasp and use their hands and fingers.
- The indicators for toddlers include how they are beginning to walk, climb, run, and jump; to roll, push, and throw balls; to use their hands and fingers to manipulate books, writing utensils, blocks, and other items; and to participate in dressing and personal hygiene.
- The indicators for preschoolers focus on how children show their increasing coordination and balance as they walk, run, climb, hop, jump, and gallop; kick, throw, catch, and bounce balls; and use their hands and fingers to manipulate puzzle pieces, to draw and write, and to put on articles of clothing.

Differences in environment, caregiving, and child-rearing practices impact physical and movement development. Caregivers and professionals should consider differences in culture, gender biases, familial expectations, and health condition or disability status when examining children's physical and movement skills development. For instance, self-help skills such as feeding vary greatly across cultures. When we support children's physical and movement

development while honoring their cultural practices, we support the healthy development of the whole child, in all domains of development.

Depending on familial, cultural, and community values, development may look different for different children. Early childhood professionals have an important responsibility to learn from the child's family about the family's cultural and community values. Early childhood professionals and caregivers share responsibility for communicating their expectations and goals for individual children.

The ECIPs **Gross Motor** component follows the kindergarten benchmarks in the 2018 Minnesota Academic Standards in Physical Education. The **Fine Motor and Self-Care** component's indicators are aligned with the Joint Committee on National Health's *Education Standards*.[38]

Domain: Physical and Movement Development

Components P1-5: Gross Motor

These K standards come from 2018 Minnesota K-12 Academic Standards in Physical Education unless otherwise noted.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
P1. (0-2 months) Reflexive Movements: Child moves involuntarily, not purposefully initiating movement.	P1.1. Responds physically to stimuli (e.g., is startled by a sound). P1.2. Turns head side to side when lying on their stomach.					
P2. (2-8 months) Movements: Child moves voluntarily.	P2.1. Holds head up unassisted while lying on their stomach. P2.2. Moves limbs to explore or engage with the environment in a supported position (e.g., kicks, bats, or reaches). P2.3. Maintains head control to view or scan the environment (e.g., looking around while lying down, while seated with support, or while held by a caregiver).					
P3. (9-12 months) Movement In and Out of Position: Child moves voluntarily and purposefully.	P3.1. Changes and holds positions independently for play (e.g., rolls to the side lying or rolls completely over and stays in the new position).					

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
P4. Locomotion: Child moves their body through a space from one place to another.	P4.1. Crawls by at least one method, examples include but are not limited to: ● On tummy using arms/legs (commando) ● Two straight arms and one bent leg (3-point) ● Scoots instead of crawls: from a seated position by pushing forward with legs (bend and straighten)/arm assist. ● Creeping using two arms and two legs. P4.2. Pulls their body upright to explore their environment. P4.3. Uses a stable item in their environment (e.g., a person, a chair, a table) to maintain balance while moving along. P4.4 Moves their body to a new location with support while maintaining trunk and head control (e.g., walking with hand held, taking steps with a push toy or walker, moving a wheelchair or floor wheeled device with their trunk and head upright).	P4.5. Moves body over changes in surface types/levels (e.g., curbs, stairs, grass to sidewalk, inclines, floor to carpet). P4.6. Moves body independently through their environment while maintaining trunk and head control. P4.7. Moves body quickly through their environment while maintaining trunk and head control (e.g., running, using a mobility device to go faster than their usual speed).	P4.8. Moves body independently up three to five stairs. P4.9. Walks up and down a few stairs with adult support or holding handrail (e.g., steps up on stair, then brings next foot to same stair). P4.10. Moves whole body quickly through their environment while in play. P4.11. Climbs onto/off stable items in their environment (e.g., a chair or a table). P4.12. Jumps up and down with two feet.	P4.13. Moves under and around three or more objects (e.g., in an obstacle course or on a playground). P4.14. Balances while walking across an object (e.g., a curb) with some assistance. P4.15. Walks up and down a few stairs with adult support or holding handrail using alternating feet (e.g., step up on a stair one foot, then use other foot to go to the next stair). P4.16. Explores on play equipment. P4.17. Jumps on one foot a few times. P4.18. Jumps with two feet over, on top, and off of spaces or objects on floor (e.g., over a rope, onto or off of a short step).	P4.19 Balances independently while walking across an object (e.g., walking along a line on ground). P4.20. Walks up and down stairs using alternating feet independently while holding the handrail. P4.21. Jumps alternating between each foot and both feet (e.g., playing hopscotch or dancing). P4.22. Jumps off variable heights using a one-foot lead or with two feet. P4.23. Gallops freely or in a game (one foot step-hop, with one foot leading). P4.24. Avoids obstacles and people while moving.	0.1.1.1. Hop, gallop, slide, skip, and run while maintaining balance. 0.1.1.2. Jump and land in the horizontal plane while maintaining balance. 0.1.1.3. Jump and land in the vertical plane while maintaining balance. 0.1.1.4. Perform locomotor skills in educational dance while maintaining balance. 0.1.3.16. Jump a single jump with a self-turned rope. 0.1.3.17. Jump a long rope with teacher-assisted turning. 0.2.1.3. Travel using slow and fast speeds. 0.4.5.1. Move safely in personal space with minimal reminders.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
P5. Object Control: Child manipulates objects to propel or receive.	P5.1. Holds and or moves objects with hands (grabs, shakes, bangs, brings objects to mouth).	P5.2. Pushes and pulls objects while moving the body independently through their environment. P5.3. Throws objects as a part of play (e.g., small balls).	P5.4. Pushes a ball forward with foot. P5.5. Rolls a ball toward a target. P5.6. Throws a ball towards a target. P5.7. Pushes with legs while sitting on an object with wheels (e.g., scooter or riding toy).	P5.8. Kicks a ball. P5.9. Throws a ball with one or two hands. P5.10. Catches by cradling in arms toward the body. P5.11. Pedals an object with wheels (e.g., a tricycle or riding toys).	P5.12. Kicks a ball close to a wide target. P5.13. Throws a ball with some accuracy to a target or person. P5.14. Catches a ball using two hands. P5.15. Bounces and catches a ball a few times using two hands.	0.1.3.1. Roll and throw underhand with opposite foot forward. 0.1.3.2. Throw overhand while maintaining balance. 0.1.3.4. Drop and catch a ball before it bounces twice. 0.1.3.5. Dribble with one hand, attempting a second contact. 0.1.3.6. Dribble with the inside of the foot, attempting a second contact. 0.1.3.7. Pass with the feet, while maintaining balance. 0.1.3.11. Volley individually using various body parts, attempting a second hit.

Components P6-7: Fine Motor and Self-Care

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
P6. Dexterity: Child coordinates and controls movement of hands and fingers to grasp (hold with fist), hold (pinch finger and thumb), and manipulate objects.	(0-6 months) P6.1. Reaches for an object with one or both hands, grasps it and holds it. P6.2. Releases a grasped object. (6-12 months) P6.3. Uses finger and thumb to hold small objects (e.g., food). P6.4. Transfers an object from one hand to the other hand. P6.5. Reaches across the body for object.	P6.6. Grasps objects to release into an open container. P6.7. Dumps out objects from an open container. P6.8. Uses finger and thumb to hold and manipulate objects (e.g., page of a board book, piece of paper). P6.9. Grasps a small item of around a one-inch diameter in a fisted grip (e.g., crayon). P6.10. Stacks two objects on top of each other (e.g., blocks or cups).	P6.11. Uses fingers and thumb to hold and manipulate objects repeatedly (e.g., turns the page of a book, opens or closes scissors). P6.12. Grasps and uses items (e.g., a crayon on paper or a stick in sand) in a fisted grip to scribble. P6.13. Stacks four objects on top of each other (e.g., blocks or cups).	P6.14. Uses fingers and thumb to hold objects and matches them in a boundary area (e.g., shape sorters). P6.15. Uses two hands together to complete tasks (e.g., ripping paper, stringing beads, lacing shoestrings, stacking smaller items). P6.16. Crosses the midline of their body with or without an object (e.g., moving toy, drawing freely across paper with a crayon, touching shoulder with opposite hand).	P6.17. Uses fingers and thumb to hold small objects and matches them in a boundary area repeatedly and with more accuracy (e.g., puzzle pieces). P6.18. Draws with intention and detail (e.g., writing letters or drawing shapes, lines, and stick people). P6.19. Uses each hand to complete a task (e.g., one hand holds the sheet of paper while the other hand moves crayon across it).	0.2.1.0. Print many uppercase and lowercase letters. (*2020 Minnesota K-12 Academic Standards in English Language Arts)*

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
P7. Self-Care: Child participates in culturally specific daily care routines for feeding, dressing, and personal hygiene.	P7.1. Moves in response to being dressed by lifting arms or legs, pushing arms or legs through clothing. P7.2. Feeds self with hands (when given opportunity) by reaching and grabbing for food items, then bringing it to their mouth. P7.3. Begins to drink from a cup with assistance from a caregiver.	P7.4. Assists with putting on or taking off some clothes, while being dressed or undressed (e.g., pulling up pants, pulling their own head through a shirt, or putting a foot in a shoe). P7.5. Feeds self (e.g., uses hands or a feeding utensil). P7.6. Drinks from an open cup with minimal spilling. P7.7. Helps clean up (e.g., toys, food, garbage, clothing). P7.8. Participates in self-care or family routines such as reaching hands for hand washing, participating in mealtime, and putting away objects.	P7.9. Attempts to dress self for indoors and outdoors with support (e.g., putting on their own top or bottom, putting on coat). P7.10. Cleans up a few materials when prompted (e.g., toys, food, garbage). P7.11. Recognizes the need to go to the bathroom and communicates this to a trusted caregiver.	P7.12. Assists with putting footwear on and taking them off. P7.13. Demonstrates increasing independence with toileting.	P7.14. Dresses with near independence. P7.15. Puts their footwear on and takes them off. May need help with ties and fasteners. P7.16. Puts on and takes off their indoor and outdoor clothes independently.	0.3.5.1. Recognize that food provides energy for physical activity. 0.5.1.1. Recognize that physical activity is important for good health. K.1.2.1. Identify that healthy behaviors affect personal health. *(National Health Standards)*

Scientific Thinking and Exploring Domain

From birth, children are scientists. They are driven by their natural curiosity. When caregivers provide engaging environments, children will naturally explore. Babies use their senses to take in information about their world, whether it's the scent of their caregiver's skin, the pitch of a familiar voice, the feel of a soft blanket, or the texture of new foods. Children's development of scientific thinking and inquiry begins in the very first months of life and continues to grow and expand as they interact with others and with the world around them. The world of mobile infants and toddlers expands so that they can crawl and walk across fresh, green grass or splash in a puddle. When they play with toys and objects, they begin to explore the properties of the world around them, such as sound, texture, and cause and effect. Preschoolers take their investigations further; they notice differences and similarities in both indoor and outdoor environments. They try to figure out how something works, and they begin to predict and explain how it works.

The indicators in the **Scientific Thinking and Exploring** domain that are set out in the ECIPs reflect the new thinking in the science education field: that encouraging young learners' scientific interest is more beneficial than having them do occasional and unconnected science activities. Therefore, the focus for this domain is on scientific processes more than specific science content. This approach will support children's flexible thinking and curiosity, which serves their scientific inquiry now and for years to come. The ECIPs provide guidance so that professionals and caregivers can know appropriate expectations for young learners and understand how best to support children's ongoing interest in the world around them.

The **Scientific Thinking and Exploring** Domain includes three components:

- Component ST1-2: Explore
- Component ST3-4: Discover
- Component ST5-6: Explain

The subcomponents and indicators identified for the ages of birth through kindergarten entry address the specific expectations across the developmental spectrum.

- For infants, indicators focus on how children observe and respond to external stimuli, show interest in exploring, and recognize familiar items, people, and situations.
- For toddlers, the indicators reflect that they seek out items of interest, begin to use objects as tools, use simple strategies to carry out ideas, and build on past experiences.
- For preschoolers, the indicators show the ways children of this age question, make plans and predict, as well as talk about their ideas.

Depending on familial, cultural, and community values, development may look different for different children. Early childhood professionals have an important responsibility to learn from the child's family about the family's cultural and community values. Early childhood professionals and caregivers share responsibility for communicating their expectations and goals for individual children.

This broad view of the **Scientific Thinking and Exploring** domain allows for ease of integration with other domains in the ECIPs. As children follow their curiosity in exploration, they build on their approaches to learning. As they discover new things, they are delighted and motivated to continue trying new things and learning more. Using the language of scientific inquiry, children's vocabulary grows. Interactions with important caregivers shape children's interest in scientific inquiry.

> *Starting in early childhood, children are capable of learning sophisticated science concepts and engage in disciplinary practices. They are deeply curious about the world around them and eager to investigate the many questions they have about their environment. Educators can develop learning environments that support the development and demonstration of proficiencies in science, including making connections across the contexts of learning, which can help children see their ideas, interests, and practices as meaningful not just for school, but also in their lives.*[43]

The ECIPs **Scientific Thinking and Exploring** domain follows the Minnesota Academic Standards: Kindergarten to prepare young learners for success later in school.

Domain: Scientific Thinking and Exploring

Components ST1-2: Explore

These K standards come from 2019 Minnesota K-12 Academic Standards in Science unless otherwise noted.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
ST1. Observe and Question: Child demonstrates awareness of and engagement with materials and environment.	ST1.1. Observes and responds to external stimuli (e.g., sounds, lights, smells, or other environmental aspects). ST1.2. Indicates surprise, curiosity, or hesitancy when presented with unfamiliar items, people, or situations.	ST1.3. Indicates interest by looking, pointing, or verbalizing.	ST1.4. Explores or asks questions about new materials or the environment. ST1.5. Notices (verbally or nonverbally) differences or similarities among materials, objects, and phenomena.	ST1.6. Uses past experiences to generate new questions.	ST1.7. Describes differences and similarities. ST1.8. Expresses curiosity and/or makes predictions after observing something that occurs repeatedly.	0E.1.1.1.1. Ask questions to obtain information from weather forecasts to prepare for and respond to severe weather. 0L.1.2.1.2. Make observations of plants and animals to compare the diversity of life in different habitats.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
ST2. Investigate: Child actively demonstrates curiosity about self, others, and surroundings.	ST2.1. Uses senses to become aware of immediate surroundings (e.g., looking at a mobile, turning their head towards a sound, or touching different textures).	ST2.2. Touches, feels, and manipulates objects to gain understanding. ST2.3. Seeks out and explores objects and items. ST2.4. Begins using objects as tools (e.g., using a block as a hammer or a phone).	ST2.5. Plays with objects of interest (whether familiar or new) for extended periods of time. ST2.6. Identifies and uses some tools for their intended purpose.	ST2.7. Seeks to gain additional knowledge in areas of interest using trial and error and/or asking for caregiver help. ST2.8. Explores and notices properties in objects. ST2.9. Uses many tools as intended (e.g., scissors or magnifying glass).	ST2.10. Starts with a useful, general approach to investigation even if details may be lacking. ST2.11. Explores objects with the intention of finding out something specific. ST2.12. Uses tools in new and creative ways.	0E.2.1.1.2. Make daily and seasonal observations of local weather conditions to describe patterns over time. 0L.2.1.1.3. Record and use observations to describe patterns of what plants and animals (including humans) need to survive.

Components ST3-4: Discover

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
ST3. Experiment: Child develops and completes a task based on a question, interest, or anticipated outcome, when provided with opportunities from caregivers within environments.	ST3.1. Demonstrates recognition of familiar items, people, and situations. ST3.2. Persists in looking for missing object(s).	ST3.3. Demonstrates willingness to try new things. ST3.4. Uses simple strategies to carry out ideas. ST3.5. Persists in actions or attempts to affect the environment or objects.	ST3.6. Approaches situations with intent to achieve a simple outcome. ST3.7. Uses a variety of strategies to carry out ideas. ST3.8. Demonstrates ability to focus on one element of a situation. ST3.9. Persists with a trial-and-error process through play and experimentation.	ST3.10. Makes a simple plan to see what will happen. ST3.11. Uses a greater variety of strategies to carry out ideas. ST3.12. Demonstrates ability to focus on multiple elements of a situation. ST3.13. Makes a prediction when prompted.	ST3.14. Makes a plan in advance with an intended outcome. ST3.15. Demonstrates awareness that different materials and variables impact strategies and outcomes. ST3.16. Makes a logical prediction of an expected outcome. ST3.17. Changes a plan or actions when the outcome is not as expected.	0P.2.2.1.1. Identify and describe patterns that emerge from the effects of different strengths or different directions of pushes and pulls on the motion of an object. 0P.3.2.2.1. Design and build a structure to reduce the warming effect of sunlight on Earth's surface.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
ST4. Evaluate: Child studies, questions, plays, and engages in problem solving to gain understanding.	ST4.1. Shows a preference for certain materials, people, or situations. ST4.2. Indicates surprise when outcome is not as expected.	ST4.3. Groups objects that belong together. ST4.4. Recognizes differences among similar objects.	ST4.5. Makes guesses at possible explanations. ST4.6. Communicates simple questions or observations after experimenting with objects or materials.	ST4.7. Describes items by comparing, sorting, classifying, and/or organizing. ST4.8. Begins to rely on or expect information, based on things seen or experienced directly.	ST4.9. Offers detailed observations of why the result occurred. ST4.10. Is open to more than one solution or answer to a problem. ST4.11. Reflects on results and develops understanding when guided by an adult.	0P.4.1.1.1. Construct an argument supported by evidence for whether a design solution works as intended to change the speed or direction of an object with a push or a pull.

Component ST5-6: Explain

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
ST5. Inquiry: Child observes and collects information to develop questions (verbal or non-verbal), make predictions and explanations.	ST5.1. Observes interactions and materials in the environment. ST5.2. Begins to explore materials in the environment.	ST5.3. Experiments with materials in the environment (e.g., stacking items) and notices what happens.	ST 5.4. Uses vocabulary to describe materials. ST5.5. Begins to experiment with cause and effect.	ST5.6. Expresses ideas about materials or results, verbally or nonverbally. ST5.7. Communicates possible explanations for an outcome. ST5.8. Generates more complex questions.	ST5.9. Retells or describes own actions when experimenting. ST5.10. Communicates with others about questions, actions, ideas, observations, or results.	0P.4.2.1.1. Communicate design ideas for a structure that reduces the warming effect of sunlight on Earth's surface.
ST6. Apply: Child uses prior knowledge in a new situation.	ST6.1. Chooses familiar people and objects.	ST6.2. Remembers and builds on past experiences.	ST6.3. Applies knowledge gained from one situation to another.	ST6.4. Recognizes different qualities to inform the development of a rule. ST6.5. Recalls information and communicates how they will use it in new or different experiences.	ST6.6. Develops and applies rules. ST6.7. Uses previous experience to solve problems. ST6.8. Compares findings to predictions or expected results and notices patterns in the findings.	0P.2.1.1.1. Sort objects in terms of natural/human-made, color, size, shape, and texture, then communicate the reasoning for the sorting system. 0P.2.2.1.1. Identify and describe patterns that emerge from the effects of different strengths or different directions of pushes and pulls on the motion of an object.

Social and Emotional Development Domain

The **Social and Emotional Development** domain focuses on children's developing abilities to recognize themselves as unique people, understand emotions, develop empathy and relationship skills, and build secure, trusting relationships with caregivers and peers. Social and emotional development includes how children learn to understand not only who they are and what they are feeling, but also what they can expect when interacting with others and how they can cope with emotions.

The developmentally appropriate expectations of children described in the **Social and Emotional Development** domain are firmly based on a foundation of trust and attachment and are essential to positive experiences in school and throughout life. A strong relationship with primary caregivers is the foundation to children's social and emotional development. Infants learn about emotions (their own and others') and about social interactions through interactions with trusted caregivers. When babies receive consistent care through routines, predictability helps them learn to communicate their needs and wants in acceptable ways. Toddlers are ready to move a safe distance away from caregivers and explore their world, while also needing to check in with caregivers to ensure that they have their support. As language and communication skills develop, toddlers use that developing language to express needs, wants, and emotions. Preschoolers show greater independence, self-awareness, and interest in the feelings of others. They are learning ways to engage successfully and positively with their friends.

It is important to remember that how emotions are expressed and valued varies greatly across cultures. For many children, the cultural values and expectations of home are very different from those of the learning environment. Importantly, culture can serve as a protective factor in the development of social and emotional health.[44] Educators promote children's healthy social and emotional development by engaging in ongoing two-way communication with caregivers to align their expectations, values, and caregiving practices.

The **Social and Emotional Development** domain includes three components:

- Component SE1-3: Self and Emotional Awareness
- Component SE4-5: Self-Regulation
- Component SE6-8: Social Understanding and Relationships

The subcomponents and indicators identified for the ages of birth through kindergarten entry address specific expectations across the developmental spectrum.

- For infants, indicators focus on the ways that children communicate their needs to their caregivers, respond to stimuli, learn to self-comfort, attend to the emotions of others, copy others' actions, and show likes and dislikes.
- The indicators for toddlers include how they attempt new challenges to use words to express needs and emotions, to follow simple routines, and to engage in parallel play with other children.

- The indicators for preschoolers focus on how children show confidence and self-direction; identify themselves as part of a family, community, and culture; demonstrate an ability to make choices; use verbal expression for needs and emotions; respond to changing behavioral expectations; and begin to manage conflicts in social interactions.

The indicators in the ECIPs help caregivers and early childhood professionals understand the expectations that are appropriate for the youngest learners. Since social and emotional development is so influential in a child's development in all areas, adults in their lives play a foundational role in shaping a child's future when they support the development of skills in this domain.

> *The relationships between young children and the adults who care for them matter. In fact, these relationships make an important contribution to children's school readiness. For young children to be able to learn, they need secure attachments to their family and other adults. When children feel safe in their relationships, they are able to explore, learn, play, and create friendships with peers. These important skills, all under the umbrella of 'social and emotional development,' will last them throughout their lifetime—and it all starts now![45]*

Social and emotional skills are highly interrelated with children's development in other domains. In fact, all learning is based on the foundation of children's healthy social and emotional development. Perhaps one of the most important subcomponents in the early years is that of self-regulation, defined as the regulation of both thoughts and feelings. This includes the ability to stop acting on one's first impulse, which might be motivated by excitement, anger, or fear, or not following directions given by adults. To support children's natural ability to flourish and learn, it's important for children to have opportunities to learn and practice self-regulation skills. Self-regulation develops at the same time as children develop executive function skills (see the **Approaches to Learning** domain), another example of the way in which children's development across domains is interdependent.

Depending on familial, cultural, and community values, development may look different for different children. Early childhood professionals have an important responsibility to learn from the child's family about the family's cultural and community values. Early childhood professionals and caregivers share responsibility for communicating their expectations and goals for individual children.

The expectations that are set out in the ECIPs recognize that in the early years, children are developing social and emotional skills that will guide their behavior, affect their overall mental health, and impact their ability to succeed academically as they move on to later schooling.[46, 47] Because social and emotional development is so fundamental to children's overall development in the early years, the alignment to the corresponding Minnesota Academic Standards: Kindergarten draws from many content areas. The ECIPs provide guidance on understanding appropriate expectations for young learners and how best to support children's healthy social and emotional development.

Domain: Social and Emotional Development

Component SE1-3: Self and Emotional Awareness

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
SE1. Security and Safety: Child demonstrates security ("I have learned to trust adults; I have learned to trust myself. I have learned to tolerate mistakes from others and myself").	SE1.1. Signals caregiver (e.g., cries) to meet basic needs. SE1.2. Communicates comfort, discomfort, enjoyment, and displeasure through signals (e.g., crying, screaming, physical gestures, laughter, eye contact, or looking away). Signals will often be specific to families and cultures.	SE1.3. Attempts new challenges or activities with support/initiation from safe/secure individuals. SE1.4. Seeks out and accepts support from trusted adults and caregivers, purposefully.	SE1.5. Demonstrates or describes personal skills, likes, and/or dislikes. SE1.6. Seeks help from trusted adults and caregivers to solve problems. SE1.7. Uses existing secure relationships to become familiar with and use social-emotional resources (e.g., books or singing).	SE1.8. Attempts new tasks and persists despite mistakes in familiar settings with predictable caregivers. SE1.9. Demonstrates preferred social-emotional resources, such as adults, peers, or comfort objects, and uses them with increasing regularity for regulation needs.	SE1.10. Demonstrates increasing security in ability to communicate opinions, feelings, and ideas. SE1.11. Engages in extended group-based activities and self-directed activities, when appropriate. SE1.12. Tolerates corrective feedback, manages setbacks, and seeks adult support when needed.	0.4.2.1. Use feedback from the teacher. *(2018 Minnesota K-12 Academic Standards in Physical Education)* 0.4.2.4. Demonstrate ways to tell a trusted adult if threatened or harmed. *(National Health Standard)*

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
SE2. Self-Awareness: Child demonstrates a positive sense of self-identity and self-awareness in family, community, culture, and the world.	SE2.1. Explores their environment and how things work with the support of familiar adults and caregivers.	SE2.2. Demonstrates awareness of self as separate from others in relationships with caregiving adults.	SE2.3. Identifies self as part of a family, ethnicity, culture, community, or group. SE2.4. Begins to describe self, using labels such as physical characteristics (e.g., eye color, hair, or gender).	SE2.5. Demonstrates knowledge of family/caregiver celebrations, traditions, and expectations (e.g., verbally describes, reenacts in play, etc.).	SE2.6. Demonstrates increasingly accurate understanding of own strengths, preferences, limitations, and personal qualities. SE2.7. Expresses understanding of and interest in similarities and differences between self and others.	0.3.2.1. Speak audibly and express thoughts, feelings and ideas clearly. *(2020 Minnesota K-12 Academic Standards in English Language Arts)*
SE3. Emotions: Child demonstrates understanding of own emotions, others' emotions, and awareness of emotions leading to reactions and behaviors.	SE3.1. Expresses emotions through facial expressions, sounds, and behaviors (e.g., crying, looking away, or startling). SE3.2. Notices and responds to emotions displayed by caregivers.	SE3.3. Expresses feelings, needs, and wants with nonverbal communication and/or vocalizations to caregivers. SE3.4. Understands that emotions can be demonstrated using words, signs, and expressions.	SE3.5. Recognizes and names some of their own emotions. SE3.6. Shows some understanding of others' emotional expressions.	SE3.7. Uses words/signs to express and describe emotions common in their home culture. SE3.8. Recognizes, describes, and responds to others' emotional expressions.	SE3.9. Demonstrates or describes an increasing understanding of cause and effect around their own emotional reactions. SE3.10. Understands and anticipates emotional reactions of others based on their personal experiences and their own emotional reactions.	

Component SE4-5: Self-Regulation

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
SE4. Regulating Emotions and Behaviors: Child learns to express feelings and needs and regulate emotions with assistance from others and independently.	SE4.1. Uses sounds, facial expressions, sign language, or gestures to gain adult attention to reduce discomfort or distress. SE4.2. Responds to a familiar caregiver's efforts to calm or soothe.	SE4.3. Seeks comfort from familiar caregivers actively, using sounds, facial expressions, sign language, gestures, or some words. SE4.4. Uses existing safe relationships and the environment to cope with difficult situations or discomfort (e.g., cuddling, adult labeling emotions). SE4.5. Tolerates brief delays in having needs met.	SE4.6. Uses a variety of coping/calming skills when heavily supported by caregivers and sometimes independently when in a safe and consistent environment. SE4.7. Follows basic expectations to manage emotions and behaviors, with reminders or assistance. SE4.8. Waits briefly to obtain a preferred item.	SE4.9. Accepts caregiver guidance and assistance when feeling strong emotions or discomfort. SE4.10. Follows increasing expectations to regulate feelings and behaviors with necessary reminders or assistance. SE4.11. Demonstrates the ability to delay gratification for longer periods of time.	SE4.12. Expresses feelings, needs, opinions, and desires more frequently through preferred communication methods. SE4.13. Shows increasing understanding of changing expectations for behavior and emotional expression in different settings (e.g., home, school, or grocery store). SE4.14. Shows ability to manage challenging feelings and behaviors, with caregiver support. SE4.15. Shows increasing ability to understand the connection between actions and consequences, including the ability to stop and think in situations.	4.2.1. Demonstrate healthy ways to express needs, wants and feelings (National Health Standard)

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
SE5. Adaptability: Child adapts to change and transitions.	SE5.1. Exhibits strong emotions in response to abrupt or unanticipated changes in activities (e.g., extended crying).	SE5.2. Exhibits, at times, strong emotions in response to changes in activities (e.g., temper tantrums).	SE5.3. Participates during changes in activities, with caregiver support.	SE5.4. Copes with change, then persists and moves ahead. SE5.5. Approaches new tasks with confidence.	SE5.6. Anticipates changes and demonstrates the ability to adjust to changes.	

Component SE6-8: Social Understanding and Relationships

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
SE6. Social Responsiveness: Child notices and responds to others and their emotions with empathy.	SE6.1. Shows interest or reacts to others' emotions (e.g., responding to a familiar caregiver's voice or touch). SE6.2. Responds to others' emotional tone and actions (e.g., smiles when someone smiles at them).	SE6.3. Imitates others' emotions and expressions (e.g., laughing when others are laughing). SE6.4. Demonstrates individual responses to others' emotional tone or demeanor (e.g.,reacts to a loud environment by crying, covering their ears, or getting excited).	SE6.5. Identifies others' basic emotional cues (e.g., learns when a peer is sad versus happy). SE6.6. Shows concern for others through efforts to help or comfort (e.g., brings something or someone to a child that is upset).	SE6.7. Shows understanding, empathy, and compassion for others through words/signs or gestures (e.g., patting on the back, hugging, or sitting near a peer). SE6.8. Labels others' emotions (e.g., tells the caregiver they look happy).	SE6.9. Attempts to label increasingly complex emotions in others (e.g., pride, embarrassment, or jealousy). SE6.10. Acknowledges others' emotions (e.g., responds to peers' complex emotions). SE6.11. Expresses curiosity and interest in others' perspectives when presented with different viewpoints.	

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
SE7. Building Relationships: Child establishes and sustains relationships with others.	SE7.1. Shows a preference for a familiar caregiver. SE7.2. Notices or responds to others (e.g., reaches for a familiar caregiver). SE7.3. Shows some awareness or caution with unfamiliar people or situations.	SE7.4. Shows preferences for one or more caregivers or children. SE7.5. Uses familiar caregivers as a base from which to explore environments.	SE7.6. Seeks out familiar caregivers and children for conversation and play. SE7.7. Manages routine separations with decreasing amount of distress. SE7.8. Uses familiar caregivers for support across settings (e.g., in the classroom or outside).	SE7.9. Participates, verbally and non-verbally, in activities and conversations with caregivers and peers.	SE7.10. Builds friendships/peer connections through play, learning activities, and conversation with peers.	0.5.3.1. Express enjoyment when being physically active individually and with others. *(2018 Minnesota K-12 Academic Standards in Physical Education*)
SE8. Social Skills: Child responds to and interacts with others in a meaningful way.	SE8.1. Responds to caregiver interactions (e.g., cooing and making eye contact). SE8.2. Responds to caregivers' interactions in increasingly connected ways (e.g., taking turns babbling and listening).	SE8.3. Practices taking turns with familiar adults or peers (e.g., rolling a ball back and forth or handing a book to someone). SE8.4. Plays alongside others. This skill is often referred to as “parallel play.”	SE8.5. Seeks a preferred playmate. SE8.6. Enters play groups using various strategies (e.g., asks to join with adult/caregiver support). SE8.7. Recognizes similarities and differences between own preferences and others’.	SE8.8. Initiates and joins cooperative play and conversations with others. SE8.9. Shows concern, respect, care, and appreciation for others and the environment. SE8.10. Takes turns with adult support.	SE8.11. Shows flexibility in roles during play. SE8.12. Shows increasing ability to initiate, engage in, and sustain positive interactions with peers and adults. SE8.13. Takes turns without adult support.	0.4.3.1. Share equipment and space with others. *(2018 Minnesota K-12 Academic Standards in Physical Education*) 0.5.3.1. Express enjoyment when being physically active individually and with others. *(2018 Minnesota K-12 Academic Standards in Physical Education*)

Social Systems Domain

From the very beginning of their lives, children are learning about people, places, and events. They are also learning about themselves, how to relate to others, and how to function in the context of their families and communities. As children begin to observe societal norms and build an identity, the choices they make and how they function in different settings are shaped. For example, as they learn to take turns, share, and care for each other and the environment, they participate in the foundational cultural norms essential in many different families and communities. The learning standards that are set out in the **Social Systems** domain of the Minnesota ECIPs are the building blocks for creating future neighbors, volunteers, workers, team members, voters, and responsible citizens.

A child's identity, understanding, and expectations of the world, as well as their role in it, are shaped as they grow up learning key skills outlined in this domain. Research highlights that child development is social and happens through interactions with others.[48] Children are surrounded and deeply influenced by the values and behaviors of their family and other caregivers. Children and their family members also live and work in a neighborhood, a broader community, and a national society, which all influence children and their development. As children grow up, they explore their surroundings and interact with others to learn concepts about time, economics, and technology, and begin to understand their identity, environment, and role in society.

Early skills and concepts in the **Social Systems** domain guide how children grow up and function in communities in relation to other people and their environment. An understanding of positive social norms can promote engagement in behaviors that are intended to benefit others, supporting social and civic competence.[49, 50] By observing the world around them, children begin to understand concepts of fairness, helping, and responsibility, so that they can thrive as citizens in their classrooms and beyond.

Young people who are knowledgeable, skillful, and committed to democracy are necessary to sustaining and improving our democratic way of life and participating as member of a global community.[51]

Additionally, environmental sustainability and conservation require an understanding of the relationship between people and the environment. In their early childhood years, children can learn important values, attitudes, and practices that can help them understand that their actions today have consequences now and in the future.[52]

The skills and concepts in the **Social Systems** domain are interrelated with children's development in other domains, including the Social and Emotional Development domain. As young children begin to communicate, develop new social-emotional and cognitive skills, and move their bodies, they are better able to engage in activities (e.g., social interaction, technology) that support the development of social systems skills. The development of these social systems skills can also support development across other domains, promoting positive development of the whole child.

The **Social Systems** domain includes five components:

- Components Soc1-2: Self-Identity, Family, and Community
- Components Soc3-4: Concept of Time
- Components Soc5-6: Environment, Geography, and Our Role in Society
- Component Soc7: Economics: Wants, Needs, and Choices
- Components Soc8-9: Technology

The subcomponents and indicators identified for the ages of birth through kindergarten entry address the specific expectations across the developmental spectrum.

- For infants, indicators focus on the ways that children make their needs and wants known; relate to others; begin to notice the sequence of routines; recognize familiar people, toys, and objects; and show awareness of the unfamiliar.
- The indicators for toddlers include how they are beginning to notice similarities and differences between people and themselves, show understanding of expectations and routines, participate in self-care, engage in pretend play, and help to clean up and put things away.
- The indicators for preschoolers focus on their developing understanding of their identity and of belonging in different groups, and on learning to follow rules and routines, show interest in family culture, and participate in turn-taking and negotiation.

While it is not developmentally appropriate to expect young children to memorize historical facts, they are able to develop understanding of social systems in important ways. The ECIPs guide professionals and caregivers in supporting this domain at developmentally appropriate levels for young children. This includes the use of technology. It is important that adults are mindful of how much time they spend on their devices while in the presence of children and model all best practices and safety protocols for using digital technology.

Depending on familial, cultural, and community values, development may look different for different children. Early childhood professionals have an important responsibility to learn from the child's family about the family's cultural and community values. Early childhood professionals and caregivers share responsibility for communicating their expectations and goals for individual children.

The indicators in this domain allow early care and education professionals to understand what is developmentally appropriate for young learners related to social systems. These indicators are written so that teachers know what to include in their instruction, environments, and care. They are aligned with the corresponding Minnesota Academic Standards: Kindergarten, in Social Studies.

Domain: Social Systems

Component Soc1-2: Self-Identity, Family, and Community

These K standards come from the 2021 Minnesota K-12 Academic Standards in Social Studies unless otherwise noted.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
Soc1. Self-Identity in the Community: Develops a sense of self-identity and belonging, and an understanding of how people and communities vary.	Soc1.1 Shows a preference for familiar adults (e.g., looks at the caregiver, moves or makes sounds to get or keep the caregiver's attention). Soc1.2. Expresses feelings and emotions through gestures, facial expressions, and sounds.	Soc1.3. Selects preferred items. Soc1.4. Notices personal characteristics (e.g., recognizes self in mirror).	Soc1.5. Explores personal characteristics and preferences and how they are similar or different from others. Soc1.6. Notices age and size differences between self and others. Soc1.7. Asks questions about similarities and differences in other people, families, and communities.	Soc1.8. Explores the physical characteristics that make individuals, families, and communities similar and different. Soc1.9. Describes their role(s) within the family, routines, familiar environments, and community.	Soc1.10. Describes similarities and differences in people. Soc1.11. Identifies the ways an individual belongs to a family, community, and culture. Soc1.12. Understands that families and communities have similarities and differences.	K5.23.1. Create a personal representation of themselves, including their family and/or ancestors. Discuss the choices made, describing what is special and important, including strengths and assets. 0.2.2.2. Share personal perspective, identity and voice, verbally or visually. *(2020 Minnesota K-12 Academic Standards in English Language Arts)* K.1.2.1. Consider and describe ways group members show they belong to the group.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
Soc2. Citizenship: Child develops an understanding of how to participate in routines and help in a group setting.	Soc2.1. Makes wants and needs known.	Soc2.2. Develops an expectation and understanding of routines within a familiar environment. Soc2.3. Notices a few steps of a daily routine (e.g., different mealtimes or a bedtime).	Soc2.4. Participates in daily routines and shows awareness of the order in a routine (e.g., washing hands before a meal).	Soc2.5. Follows the daily rules and routines, with modeling and support from a caregiver. Soc2.6. Explains and practices ways that they can help others.	Soc2.7. Demonstrates an understanding of community agreements (e.g., rules), and the consequences when rules are not followed. Soc2.8. Provides help to the caregiver in the early childhood environment.	K.1.4.1. Identify examples of rules in the school and neighborhood community and explain why they exist. Describe incentives for following rules and consequences for breaking rules. K.5.24.1 Retell a story about an unfair experience that conveys a power imbalance (A personal experience or one from a story). Share what can be learned from this story.

Component Soc3-4: Concept of Time

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
Soc3. Personal and Family History: Child explores the concepts of past, present and future in relation to important personal events, with caregiver support as needed.	Soc3.1. Shows awareness of repeated events (e.g., reactions to separation from caregivers, feeding time). Soc3.2. Reacts to familiar and unfamiliar events and people (e.g., stranger anxiety in older infants).	Soc3.3. Begins to use language and other forms of communication (sign language, assistive technology device) to talk about experiences. Soc3.4. Engages in imitative play interactions based on prior experience and interactions (e.g., imitating familiar dance).	Soc3.5. Begins to use language that refers to time, accurately or inaccurately (e.g., using "tomorrow" or "yesterday"). Soc3.6. Imitates others (e.g., caregiver behavior during play). Soc3.7. Recognizes their role or position in the family (e.g., pointing out they are no longer the baby but the older child).	Soc3.8. Uses common language expressions when recalling and communicating about past events (e.g., saying, "yesterday," "when I was a baby," or "last time"). Soc3.9. Demonstrates an understanding of chronological order concepts in reference to a specific event (e.g., recalling an event such as the birth of a sibling). Soc3.10. Talks about recent family or friend events and their impact on themself.	Soc3.11. Uses language to recall and anticipate events in time with increasing understanding and accuracy. Soc3.12. Compares self to older and younger family members and friends with specific examples. Soc3.13. Describes a chronological order in a series of familiar events. Soc3.14. Reflects on the impact of past, present, and some future events on self and family.	K4.18.1. Ask historical questions about a past event in an individual's family, school or local community. K.4.21.1. Use a variety of words to reference time in the past, present and the future; identify beginning, middle and end of historical stories.

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
Soc4. Community Stories and Traditions: Child has an awareness and appreciation of family and cultural stories and traditions.	Soc4.1. Explores with familiar people and objects in their environment.	Soc4.2. Recognizes and names their family members by their respective titles (e.g., mom, dad, grandpa, aunt, uncle, sister, or brother).	Soc4.3. Shows interest in books, photographs, stories, and games about families, cultures, and a variety of traditions. Soc4.4. Asks questions about family and culture (e.g., "Why?").	Soc4.5. Tells stories about family, culture, and traditions. Soc4.6. Asks deeper questions about families and culture to build their understanding.	Soc4.7. Compares their own cultural traditions with others' to understand similarities and differences.	K4.19.1. Identify how different families and communities celebrate or commemorate events and engage in respectful conversation about traditions within an individual's family/community and those of other families/ communities. K.4.20.1. Describe how people learn about the past by identifying different types of historical sources and asking what can be learned from those sources. K.4.22.1 Retell and discuss a story about diverse individuals or groups in the past that illustrates honesty, courage, friendship, respect and/or responsibility.

Component Soc5-6: Environment, Geography, and Our Role in Society

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
Soc5. Conservation: Child understands the responsibility of belonging to a community and that some environmental resources are limited.	Soc5.1. Explores the environment with a caregiver, communicates basic needs, and develops a nurturing bond.	Soc5.2. Helps to clean up (e.g., puts away play items or picks up trash).	Soc5.3. Explores conservation concepts such as reducing, reusing, and recycling, with modeling and support from a caregiver (e.g., sorting cans and plastics).	Soc5.4. Practices conservation concepts such as reducing, reusing, and recycling (e.g., turning off running water when using the sink).	Soc5.5. Participates in community conservation activities that help manage, preserve, and protect the environment (e.g., planting a tree).	K.5.25.1 Describe the importance of first peoples'/ Indigenous peoples' relationships to land, water, and the non-human world.
Soc6. Physical Environment: Child identifies important physical features in their environment.	Soc6.1. Begins to explore the environment with a caregiver. Soc6.2. Begins to play with items in their environment (e.g., blocks, leaves, and other objects).	Soc6.3. Plays with items in their environment (e.g., toys, rocks, spoons, and other objects).	Soc6.4. Identifies and labels significant objects and places in familiar environments.	Soc6.5. Explores and describes differences in physical environments where people live, work, and play (e.g., playground equipment at a park).	Soc6.6. Begins to use geographic and spatial language to identify features of familiar environments (e.g., Identifies hills, ponds, rivers, and uses words like "near," "far," or "over"). Soc6.7. Uses objects (e.g., drawing materials or building blocks) to recreate a familiar environment (e.g., the park or the zoo).	K.3.13.1. Explain or show routes between locations using both fixed and dynamic maps from local to global scales. K.3.14.1. Identify physical and human characteristics and find examples in the local community and within stories. K.3.17.1. Create a representation of a favorite place. Explain why it is important to them and how it makes them feel.

Component Soc7: Economics: Wants, Needs, and Choices

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
Soc7. Economic Reasoning: Child begins to have an understanding of wants, needs, choice, costs, incentives, rules, trade, and future outcomes.	Soc7.1. Communicates needs and wants with caregiver (e.g., reaches to grab objects or food). Soc7.2. Explores cause and effect.	Soc7.3. Begins the back-and-forth exchange of imitating adult behavior. Soc7.4. Begins to understand the "first/then" concept (e.g., "First we put on our PJs, then we can read a book"). Soc7.5. Begins to recognize ownership of items and with support, returns items to their owner (e.g., returning a pacifier to a friend).	Soc7.6. Participates in turn-taking activities with support. Soc7.7. Asks for needs to be met. Soc7.8. Trades an undesired item for a desired item. Soc7.9. Explores with caregivers the meaning of goods and exchanges in the community.	Soc7.10. Participates in turn taking with increasing independence. Soc7.11. Describes basic needs for living things (e.g., food, water, shelter). Soc7.12. Begins to understand the use of trade or money to obtain goods and services (e.g., during dramatic play children trade pretend money for goods such as groceries).	Soc7.13. Negotiates and shares with other children during play. Soc7.14. Labels individual needs and wants with support. Soc7.15. Asks for items that they need or would like (e.g., a toy or a favorite food at the store).	K.2.9.1. Distinguish between individual needs (conditions necessary to survive) and individual wants (conditions desired to be happy). K.2.10.1. Distinguish between goods (objects that can be seen or touched) and services (actions or activities). Identify goods and services that could satisfy a specific need or want. K.2.12.1. Explain why people agree to trade.

Component Soc8-9: Technology

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
Soc8. Using Technology: Child engages with a variety of forms of technology. Screen usage is recommended with caregiver support and supervision. **Technology includes videos, music, computers, tablets, television, smart phones, toys with lights and sounds, voice assistance, etc.*	Soc8.1. Shows an initial awareness of technology (e.g., turns towards mobile device when the device is activated).	Soc8.2. Engages with technology using non-verbal communications (e.g., eye contact and facial expressions), as well as verbal, including labeling familiar items seen on screen.	Soc8.3. Engages with technology to connect socially to familiar people through video chats, recorded videos, and photos with a caregiver. Soc8.4. Explores properties and functions of objects with a caregiver. Soc8.5. Substitutes one object for another (e.g., uses an object to imitate talking on a phone).	Soc8.6. Begins to understand that the content in digital media is used for specific purposes. Soc8.7. Explores all tools, including technology, to enhance learning with support from a caregiver.	Soc8.8. Knows when, how, and why to use a variety of digital and non-digital tools for learning (e.g., knows that a key opens a lock or a passcode unlocks a mobile device).	03.3.1. Create written, oral, and digital content that communicates knowledge and ideas in a variety of presentation styles, with prompting and support. *(2020 Minnesota K-12 Academic Standards in English Language Arts, Computer Science)* 0.3.3.2. With prompting and support, create an individual or shared multimedia work for a specific purpose (ex. to share lived or imagined experiences, to present information, to entertain, or as artistic expression), considering digital footprint. *(2020 Minnesota K-12 Academic Standards in English Language Arts, Computer Science)*

Subcomponent	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	K Alignment
Soc9. Digital Safety and Well-Being: Child has the ability to choose and use some digital technology appropriately. **Digital technology includes videos, music, computers, tablets, television, smart phones, voice assistance, etc.*	Soc9.1. Observes caregiver's use of technology.	Soc9.2. Responds to limits on technology and is able to engage with other objects.	Soc9.3. Engages with technology, when guided by a caregiver.	Soc9.4. Uses technology as one option for play. Soc9.5. Transitions to another activity after technology use, with adult support.	Soc9.6. Engages in developmentally appropriate use of all tools, including technology, with support from a caregiver. Soc9.7. Transitions to another activity after technology use.	2.2.3. Describe how the media can influence health behaviors. *(National Health Standard)*

References

Introduction

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