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NORTH DAKOTA DEPARTMENT OF PUBLIC INSTRUCTION

SELECTING A COMPREHENSIVE PRESCHOOL CURRICULUM

A Decision-Making Guide for Early Learning Educators

Created in Partnership with Mid-continent Research for Education and Learning and the North Dakota Department of Public Instruction

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Table of Contents

Introduction

Early experiences matter, and high-quality early educational experiences can have long-term positive effects on child outcomes, both academic and non-academic.[12, 13, 72, 75] Many factors can impact the quality of an early childhood educational program, with one of the most influential (and perhaps easiest to control) factors being the curriculum. This guide is designed to aid educators in choosing an effective preschool curriculum that is appropriate for their program's staff and children and a curriculum that supports developmentally appropriate practice.[52]

First steps in the development of this guidance document, ND DPI reviewed current statewide and national guidance and practices focusing on preschool-age curriculum and assessment. This review also included valuable input gathered from North Dakota early childhood professionals. As a result of this review, and the development of the *North Dakota Pre-kindergarten Content Standards* (*"Standards"*), ND DPI focused on the development of the preschool curriculum selection guide: *Selecting a Comprehensive Preschool Curriculum: A Decision-Making Guide for Educators* ("*Curriculum Selection Guide*") It is important to note that this Guide and the Standards are intended to be used together in the curriculum decision-making process. This is reflected in the fact that the Standards document is referenced and must be consulted when considering various "critical components" (e.g., Domain and Domain Elements component) a curriculum should address.

Context

Historically, the United States has held conflicting views on whether early childhood settings should focus on care or education. These views were highlighted in 2001 by the National Research Council's seminal report, *Eager to Learn*, which stated that care and education could not be thought of as separate entities in working with young children, and went on to charge educators with both the obligation and the opportunity to develop "the full range of capacities that will serve as the foundation for school learning."[10] The report also acknowledged the "growing recognition that good early childhood education programs that are based on student outcomes aligned with the school's K-12 standards can ensure articulation of programming, ease transition into the K-12 setting, and form a firm foundation upon which future academic and social success can be achieved."

A standards-driven environment has characterized K-12 education for the last 20 years and, more recently, the preschool field has moved toward addressing standards. This move is evidenced by data collected for FY 2010-11 by the National Child Care Information and Technical Assistance Center that revealed that all states now have developed, or are in the process of developing, early learning guidelines.[63] Simply having guidelines alone, however, is not sufficient to influence student learning—an effective curriculum must also be in place that guides educators to help children reach the outcomes associated with the guidelines. There has been much debate about the purposes and even the very definition of curriculum.[54, 91] Whatever one's view on what constitutes a curriculum and what its purpose may be, it is clear that a "good well-implemented early childhood curriculum provides developmentally appropriate support and cognitive challenges and, therefore, is likely to lead to positive outcomes[28]" (p. 6).[54]

High-quality early childhood experiences are beneficial to *all* children,[12] but research suggests that factors associated with such curricula can be especially beneficial for children considered "at-risk" for academic success, including children from low-socioeconomic (income) backgrounds, ethnic minorities, and children with special needs.[11, 20, 41] State and federal government regulations and numerous well-respected organizations (e.g., Division for Early Childhood of the Council for Exceptional Children [DEC-CEC], National Center for Children in Poverty [NCCP], National Association for the Education of Young Children [NAEYC]) have called for and even required programs to place a special emphasis on serving children who are part of

these groups considered at-risk for academic achievement. For example, Title I and Early Head Start/Head Start funding and regulations are in place that address the unique needs of children from low-socioeconomic families, while the Individuals with Disabilities Education Act (IDEA) requires that all children, regardless of their abilities, have equal access to and opportunity to participate and succeed in general curriculum. Taking this into consideration, and given the diversity and needs of North Dakota's children[66] and the wide body of research demonstrating the positive effects of quality curricula for all young children, it is important that programs carefully and thoughtfully choose curricula that will meet the needs of the children they serve.

Contents of the Guide

An in-depth review and analysis of empirical research, state and federal documents, and reports and position statements of well-respected national organizations and preschool programs was conducted and informed this guide.[20, 29, 41, 54, 56, 59] Resources were reviewed for common themes considered important aspects of effective early childhood curricula. While the terminology used across many of these documents varied and concepts were grouped together differently, nine "Critical Components" emerged. Each of these Critical Components and supporting evidence are discussed in the following sections. The Guide includes a section focusing on use of the "Action Tools". The Tools are designed to help reviewers select a curriculum based on an analysis of the extent to which it includes each of the Critical Component. The Action Tools and detailed suggestions for completing the review process are presented in the Appendix.

Citations are included throughout the Guide and are represented by numbers in the text and referenced as endnotes. Readers should consult these references for further information and understanding on topics presented throughout this guide. that For ease of reference, each Critical Component section contains a different colored callout box that highlights the key questions or points to consider for that component; the Action Tools located in the Appendix are color coded to match each Critical Component.

***Critical Components* to consider when evaluating a curriculum:**

1. Alignment with Program Philosophy, Mission, and Goals
2. Domains and Domain Elements
3. Pedagogy
4. Assessment
5. Evidence of Effectiveness
6. Cultural, Socioeconomic, and Ethnic Sensitivity
7. Professional Learning
8. Family and Community Engagement
9. Affordability and Feasibility

Overview of Critical Components

Alignment with Program Philosophy, Mission, and Goals

First and foremost, the selected curriculum must align with a program's overall philosophy, mission, and goals related to children's early learning and development.[20, 29, 54, 56] This is important, as teachers are more likely to implement a curriculum if it aligns with their teaching philosophy.[46, 47, 56] Reviewers should consider the philosophical approach of the program in terms of how children learn, including the roles of children, teachers, and play in learning. The National Institute for Early Education Research (NIEER)[29] identifies potential philosophical approaches of a curriculum. For example, does the program believe in a more direct instruction approach, a socialization approach, a constructivist approach, or something in between? While each approach has its place within the preschool classroom at different times and for different reasons, the constructivist approach is typically the most commonly adopted by preschools, and is also the approach most often supported by early childhood organizations.

- A direct instruction approach tends to be more structured and teacher-led, primarily including didactic instruction and "skill-and-drill" types of activities.
- A socialization-focused approach is more free-form in nature and based on child-led learning. Within this approach, children lead their own learning, primarily through free play (any play activities that are not guided by the teacher), and teachers are free to create activities as they see fit.
- A constructivist approach is based largely on the work of Piaget and Vygotsky. This approach holds the view that children learn within a social-cultural context, meaning that they both shape *and* are influenced by their environment.[86] Content is both child- and teacher-led in that teachers follow the children's lead in selecting and designing activities, but also use this information to thoughtfully create new learning opportunities, all while following a general and flexible framework provided by the curriculum. Considering the overall mission and goals of the program and how they can be supported by the content and approach of a curriculum in a "unified, coherent way" is also important when choosing a curriculum.[52, 54] With regard to their mission, some programs may already have a mission statement developed; others may need to think about their mission, or core purpose. Similarly, reviewers should consider the overall program goals with regard to children's learning, including those specifically for children from diverse or less advantaged groups and those with special needs.[20]

Points to consider when reviewing Alignment with Program Philosophy, Mission, and Goals:

- What is the philosophical approach of the program in terms of how children learn (e.g., direct instruction, socialization, and constructive approaches)? Does the curriculum follow this approach?
- What is the overarching purpose or mission of the program? Does the curriculum support this mission?
- What are the program's ultimate goals for children? Can the curriculum support these goals?

See Action Tool 1 (p.39)

Domains and Domain Elements

A comprehensive and acceptable curriculum should include all domains of development and address the state and/or program early learning standards or guidelines within each domain.[20, 29, 41, 52, 54, 56] Importantly, this should be done in an integrated, balanced way. Research with young children from various economic, cultural, and developmental backgrounds has shown that programs that focus on the "whole child" and all areas of development are associated with more positive child outcomes, both academic and non-academic. [5, 30] This is further supported by research that demonstrates a strong link between various areas of child development (e.g., social, emotional, self-regulation, attention, etc.) and academic outcomes.[6, 7, 51, 73]

In addition to covering each broad domain (e.g., physical development, health, language and literacy, etc.), a curriculum should also cover each of the subsections, or domain elements, that have been identified as important developmental components for early learning. Within North Dakota's Pre-kindergarten Content Standards for example, the Science and Problem Solving domain includes the following domain elements: students understand the unifying concepts and processes of science, students use the process of science inquiry, students understand the basic concepts and principles of physical science, and students understand the basic concepts and principles of life science.

A comprehensive curriculum should address all of these domain elements by setting forth clear learning targets and curriculum aims. In fact, research with early childhood programs has shown that the most effective curricula are those with clear targets about what they want to teach.[15, 30] This is essential, as the learning process starts with and depends on teachers being clear about what they want children to know, be able to do, or be like. "While no single curriculum or pedagogical approach can be identified as best, children who attend well-planned, high quality early childhood programs in which curriculum aims are specified and integrated across domains tend to learn more and are better prepared to master the complex demands of formal schools."[10]

Head Start's National Center for Quality Teaching and Learning (NCQTL)[56, 57] and the DEC-CEC, 2007[20] provide detailed information and checklists for evaluating the critical component of domains and domain elements; this work has been incorporated and expanded upon here.

- **Coverage:** First, reviewers need to consider the *coverage* of a curriculum, or "how the curriculum addresses each of the [North Dakota] domains and domain elements" (p. 1).[57] While publishers and writers of curriculum materials may state in their promotional language that all the learning domains are covered, educators need to study the curriculum carefully and verify that each domain is fully and thoughtfully addressed.

- **Balance and Integration:** The content within

Points to consider when reviewing Domains and Domain Elements:

- Coverage: Does the curriculum address each of the ND domains and elements?
- Balance and Integration: Are domains and elements evenly represented and integrated? If a specialized curriculum is needed (e.g., math focus), is the content appropriately distributed to meet that particular need?
- Depth: Does the curriculum provide a sequence of developmentally important skills?
- Difficulty: Are skills and expectations appropriately challenging for children?

See Action Tool 2 (p.34)

each domain should also be *balanced* and taught in an *integrated* way, such that there is a "relatively even representation of all the domains and domain elements in the curriculum" (p. 1)[57] (unless the program is searching for a curriculum focused on a particular topic, such as math or literacy) and that they are integrated with one another throughout the day. With regard to balance, it is important that the amount of information and support available for a given domain is aligned with the particular needs of a program. Reviewers should consult the North Dakota Standards document for more detailed information about the types of skills included within each domain and domain element.

It's important to keep in mind that if a program is looking for a single, comprehensive curriculum, it is best that all domains be evenly represented. If a program is looking for a curriculum with a particular focus, such as math or literacy, the majority of content should be aligned with that area of need. If single-focus curriculum is being selected, however, it should supplement or be built into a comprehensive curriculum; it's important that the supplemental curriculum does not become the only curriculum used in the classroom.

- **Depth:** The *depth* of the curriculum should also be considered. This includes examining "the degree to which the curriculum provides a sequence of developmentally important skills that lay the foundation for later development and learning" (p. 2).[57]

- **Difficulty:** Reviewers should assess the *difficulty* of the content covered, which refers to "the degree to which the curriculum identifies skills and expectations that are intellectually challenging for children at developmentally appropriate levels" (p. 2).[57, 52]

The North Dakota Standards identify nine domains that also include multiple domain elements:

- Physical Development
- Health
- Social and Emotional Development
- Approaches to Play and Learning
- Expressive Arts and Creative Thinking
- Language and Literacy
- Mathematics and Logical Thinking
- Science and Problem Solving
- Social Studies

Each of these domains should be evaluated in terms of coverage, balance and integration,

Points to consider when reviewing Pedagogy:

- Intentional Teaching: Is guidance provided around planned, thoughtful, and purposeful teaching?
- Individualization: Is guidance provided around differentiation? Expanding and focusing the curriculum for all or some children, as needed? Creating a curriculum that individualizes instruction via accommodations and modifications? Allowing for more intensive intervention strategies or programs to be incorporated into the classroom?
- Inclusion and Universal Design for Learning: Is guidance provided around creating a curriculum that invites the participation of all children via multiple means of representation, engagement, and expression?
- Well-Designed Learning Opportunities: Is guidance provided around creating learning opportunities that are: engaging; challenging, meaningful, and authentic; capable of capitalizing on children's desire to learn; and supportive of positive relationships?

See Action Tool 3 (45)

depth, and difficulty when using the Action Tools.

Pedagogy

Pedagogy refers to "a variety of teaching methods or approaches used to help children learn and develop" (p. 27).[54] Teachers undoubtedly have various methods and approaches they prefer and that are successful with many children; even so, an acceptable curriculum will provide instructions for curriculum implementation, as well as detailed guidance on strategies and methods specific to its content and aligned to its overall goals.[20, 29, 41, 54, 56, 59] Based on aspects of appropriate curricula discussed by national early childhood and other educational organizations, four critical sub-components related to pedagogy have been identified: (1) intentional teaching, (2) individualization, (3) inclusion and universal design for learning, and (4) well-designed learning activities.

Intentional Teaching

Intentional teaching is "planned, thoughtful, and purposeful" and requires teachers to "use their knowledge, judgment, and expertise to organize learning experiences for children" (p. 1).[23] Intentional teachers are always working with well-articulated goals and learning opportunities in mind as they promote children's continued learning and development, which can be facilitated by a curriculum that provides clear guidance and information on goals and activities.[20, 41, 54, 56, 59] Research with children from various cultural and socioeconomic backgrounds shows that curricula and teaching that is focused, purposeful, and responsive is not only considered developmentally appropriate practice,[52] but is also associated with more positive child outcomes.[30, 32, 85]

To ensure that teachers are selecting developmentally appropriate learning goals and opportunities, a curriculum should provide developmental trajectories that they can reference when planning teaching and learning opportunities. Intentional teachers plan based on children's developmental levels and are also responsive to and build on children's interests and what they are ready to learn; an effective curriculum should provide guidance on and allow for such teaching.[52, 56] Finally, the curriculum should provide guidance on how a variety of teaching strategies can be used to teach content in such a way that optimizes children's learning. Such strategies can range from adult-guided experiences that "proceed primarily along the lines of the teacher's goals, but [are] also shaped by the children's active engagement," to child-guided experiences that "proceed primarily along the lines of children's interests and actions, with strategic teacher support" (p. 3).[23, 52, 56]

Individualization

Individualization of teaching strategies and learning opportunities is a common theme in education and is often discussed in terms of differentiation. Individualization of instruction, while sometimes logistically challenging, is beneficial to all children and has been identified as a core consideration of developmentally appropriate practice,[52] as well as a common factor among the most effective curricula.[70] Individualization is especially important for children who are considered academically at-risk.[41, 54] A curriculum should provide guidance around expanding or focusing content for some or all children, depending on the needs of the children and the program.

Individualization of instruction helps to create inclusive classrooms by ensuring equal access and opportunities for participation by all children,[21] and requires teachers to make accommodations and modifications to the learning environment.

- **Accommodations:** The DEC-CEC defines accommodations as "acts made to level the playing field and provide equal access and opportunity without substantially altering what children are expected to learn and be able to do" (p. 4).[20] A curriculum should allow for and provide guidance around making accommodations, such as: the adaptation of toys and other materials; allowing for various instructional methods and interactions, including grouping patterns (e.g., individual instruction, small group,

whole group); and the purposeful arrangement of the physical, social, and temporal environments.[20, 52, 56]

- **Modifications:** Modifications are defined as "substantial changes, practices, and expectations" (p. 4)[20] based on children's needs. Modification inclu[de] things, such as changing learning goals for specific children or the content to be covered for specific children to meet their learning needs.[74]

The curriculum should not only allow for and provide guidance on how teachers can individualize instruction by making accommodations and modifications for children, but should also allow for multiple, more intensive intervention strategies or programs to be incorporated within the classroom setting.

Inclusion and Universal Design for Learning

When classrooms include children with and without special learning or behavioral needs, as is common in many of today's classrooms, an inclusive curriculum with a "universal design for learning" (UDL) should be implemented.[20, 21, 29, 59] A UDL, inclusive curriculum is one in which all aspects of the curriculum are "context sensitive" and create equal access for and invite active participation of *all* children, including those with unique experiences and learning needs. [20, 21, 29] Such strategies are associated with positive outcomes for all children.[18] Similar to UDL, NAEYC states that "early childhood inclusion embodies the values, policies, and practices that support the right of every infant and young child and his or her family, regardless of ability, to participate in a broad range of activities and contexts as full members of families, communities, and society" (p. 2).[21]

The DEC-CEC [20] identifies three essential principles of universal design for learning: (1) multiple means of representation, (2) multiple means of engagement, and (3) multiple means of expression, each of which require accommodations and modifications to support all learners.

- **Multiple Means of Representation:** First, a curriculum should allow for multiple means of representation, meaning that instruction, questions, expectations, and learning opportunities should be provided in different, multiple formats and at varying levels of complexity. They should also address a range of ability levels and visual, auditory, and kinesthetic needs. [20, 52]

- **Multiple Means of Engagement:** A curriculum should also allow for and provide guidance on how teachers can create multiple means of engagement for children with varying developmental and learning needs, as well as those from many different backgrounds. [20, 52] This requires teachers to have information about using multiple means of scaffolding, or support, to help maintain children's engagement. Another way that a curriculum can help to maintain engagement of all children is to balance novelty (e.g., randomness and surprise) with familiarity (e.g., repetition and predictability) within learning opportunities. Posing developmentally appropriate learning challenges and providing children with varied ways to direct their play and be involved in such learning routines and planned activities can also support children's active engagement.[52] It's important to note that high-level make-believe play is beneficial for all preschool children and, as such, should be supported by the curriculum.[8, 52, 86]

- **Multiple Means of Expression:** There should also be guidance about providing multiple means of expression so that all children have the opportunity to demonstrate their knowledge and what they can do, regardless of their abilities. Children should be encouraged to express themselves in many different ways, including the use of both verbal and non-verbal expressions of ideas, feelings, and preferences. This may include allowing children to use speech, signs or gestures, drawing/pictures, objects, writing, or assistive technology as a means of expression. Children should be encouraged

to communicate with peers in such ways as well. [20, 52]

Well-Designed Learning Opportunities

An appropriate curriculum should include well-designed learning opportunities for children.[20, 54, 56, 59] These opportunities can be accomplished by either providing instructions for already-developed learning opportunities, or by providing teachers with clear guidelines and information to create such opportunities on their own based on the interests and skills of the children. Guidelines should include the use of technology in developmentally appropriate ways for children.[53] Regardless of how such information is included, reviewers should ensure that there are appropriate and sufficient learning experiences and opportunities to develop skills and knowledge in all areas of learning.[52, 56, 59] Such opportunities should be linked to specific learning goals and objectives, and the content of the curriculum should cover and be clearly aligned to all areas of development and learning identified in the North Dakota Standards. Well-designed and purposeful learning opportunities that support specific goals and objectives have been identified as a common factor among the most effective curricula.[15]

Creating engaging learning opportunities. Well-designed learning opportunities should actively engage both children and teachers.[41, 52, 54, 56] A large body of research shows that, for children of all ages, learning is enhanced when they are activity engaged within their environments.[15, 25, 30, 71] As many teachers know, engaging children can be challenging, to say the least, and is a "pedagogical approach [that] requires far more than simply transmitting facts to the children, and emphasizes opportunities that foster higher-order skills" that enrich and extend the learning context (p. 16).[41] One way to enhance learning and make it more engaging is to provide hands-on opportunities for children to construct knowledge through their interactions with various materials and people in their environment.[15, 30, 52, 54, 56] To aid teachers in setting up such opportunities, adequate and appropriate explanatory materials should be available to guide teachers on implementing the curriculum, as well as information about planning the environment and selecting materials for engaging learning experiences.

Creating challenging, meaningful, and authentic learning opportunities. Effective curricula are intellectually challenging, personally meaningful, and authentic,[52, 54, 59] perhaps because they tap into children's motivation to learn.[79, 80] Curriculum materials that are open to extension or refinement and build on what children already know allow opportunities for teachers to create more specialized and personal learning experiences for children in their classroom. One way teachers can do this, which has also been shown to enhance children's learning,[39] is by incorporating real-life experiences and aspects of children's cultural and linguistic backgrounds into the environment and learning opportunities.

These learning opportunities should be "authentic," meaning that they should tend to arise naturally or be presented in such a way that teachers lead children to the information they should be learning, and children should have the opportunity to interact with this information in a way that is most meaningful for them. One way this can occur is by embedding various learning opportunities within daily routines in the classroom, school, and community environments.[20, 38, 74] As previously mentioned, make-believe play is an important learning context for young children[8, 86] and provides yet another powerful opportunity for authentic learning to occur in the early childhood classroom.[52]

Capitalizing on children's desire to learn and be competent. Well-designed learning opportunities capitalize on young children's powerful desire to learn and be competent, or do well on tasks, which is reflective of their motivation to learn.[52, 59] The curriculum should support children's continued desire to learn by encouraging and providing feedback on learning goals and outcomes. According to research on achievement motivation, a learning goal occurs when an individual's purpose in completing a challenging

activity is to learn something new.[22] Children who focus on performance goals, or outcomes, on the other hand, only have the goal of successfully completing a task, which means that they're likely to avoid challenging activities or situations.[22] Research comparing children from low- and middle-socioeconomic backgrounds suggests that preschool-aged children in these groups both tend to have learning goals;[19, 49] however, as these children progress through schooling, those from low-income backgrounds show increased rates of performance goals as compared to their middle- and upper-income counterparts.[14, 48] Taking such research into consideration, it's important that an early childhood curriculum support learning goals and outcomes.

A curriculum should also include learning activities that are arranged in such a way that all children can be successful, in their exploration and be exposed to feedback opportunities that further support learning goals and outcomes. Because it is unrealistic to expect that children will always be successful in completing any given task, it is important that the curriculum allows for and provides guidance on how teachers can provide feedback to children that focuses on the learning process, and not on the outcome. To support children's adoption of learning goals on their own (even without teacher feedback), learning opportunities should also be included that have clearly identifiable successful outcomes that allow children to more easily recognize successful learning and their own achievements.[54]

Supporting positive relationships. In addition to supporting academic learning, well-designed learning opportunities should also support the development of positive relationships[41, 59] and a "caring community of learners."[52] A large body of behavioral and neuropsychological research with children from a wide variety of backgrounds has consistently shown that positive relationships are associated with more favorable social and emotional development that, in turn, is associated with more positive learning and academic outcomes.[3, 40, 42, 68, 77] Taking this into consideration, the curriculum should include guidance and opportunities that nurture positive teacher-child and peer relationships in the early childhood classroom. This includes ensuring that all children are always included in the peer culture, and that children know about and appreciate each other's lives outside of the classroom.

Assessment

Assessment is a complex and multifaceted critical component to consider when choosing a curriculum. Research has consistently shown that the most effective early childhood programs are

Points to consider when reviewing Assessment:

- Content and Contextual Sensitivity: Does the assessment include all learning domains and domain elements? Is it developmentally appropriate for the age group served by the program? Is it culturally and linguistically reflective of children's backgrounds?
- Administration and Data Use: Does the assessment allow for multiple methods of assessment and sources of evidence? Does the assessment allow for measuring children's independent and assisted performance? Is it authentic, engaging children in meaningful contexts with meaningful information? Does it allow for Accommodations and modifications for diverse learners? Does it allow for regular, ongoing assessment? Is guidance provided on how to interpret and use data?
- Quality and Ease of Use: Is the assessment valid and reliable? Are nationally representative norms and standardized scores available, if applicable? Is the assessment feasibly able to be implemented (appropriate length, ease of administration, etc.)?

See Action Tool 4 (p. 42)

those that include a comprehensive, ongoing assessment component.[5, 30] The main purposes of assessment are: (1) to inform and support decision-making related to teaching and learning, (2) to identify significant concerns that may require focused intervention for individual children, and (3) to generally help programs improve.[24, 54] Given the complex and multiple purposes of assessment, many factors come into play related to its selection, administration, interpretation, and application.

Content and Contextual Sensitivity

An assessment or assessment system associated with a curriculum should be comprehensive and include integrated methods for assessing all domains and domain elements identified in the North Dakota Standards. The assessment system should also be directly linked to the learning goals of the curriculum to ensure that assessment results will provide useful information about whether the curriculum is achieving what it is intended.[20, 29, 54, 56]

Importantly, the assessment must be appropriate for the children enrolled in the program. The content and methods of the assessment must be developmentally appropriate for the age group included in the program.[52, 54] It should also be culturally and linguistically reflective of the children's backgrounds, incorporating culturally-based experiences when possible.[54, 56, 59] For English Language Learners (ELLs) and Dual Language Learners (DLLs), materials and implementation methods should incorporate the child's first language to ensure that assessment results reflect children's actual knowledge of the content being assessed, and not just their ability to understand and speak English. NAEYC and the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) jointly state that, "for young bilingual children, instructionally embedded assessments using observational methods and samples of children's performance can provide a much fuller and more accurate picture of children's abilities than other methods" (p. 10).[54, 44, 67]

Assessment Administration and Data Use

Methods. Using multiple methods of assessment is beneficial for all children.[24] For this reason, guidance should be provided on the use of multiple formal and informal methods to measure curriculum goals and objectives, as reflected in children's behaviors and learning.[20, 29, 54, 56] Such methods can include: observations of children's interactions and play, examinations of work samples or portfolios, asking children questions, using checklists and rating scales, or norm-referenced tests.[52, 54] Assessment administration methods should allow for the evaluation of what children can do independently, as well as what they can do with assistance from other children or adults.[52]

Sources. The assessment should allow for multiple sources of evidence.[20, 52, 54] For example, assessment data should come from teachers, other child care providers, families, community service providers, and other intervention specialists. The curriculum should also provide guidance on how assessments can be carried out in multiple and varied settings. For example, assessments could be carried out with children individually or in a group or classroom context, among other settings.

Authentic assessment. The methods in which assessments are administered should be aligned with how children learn.[54] This is to say that assessments should be authentic and engage children in meaningful tasks within a meaningful context, such as that offered by make-believe play.[4, 20, 29, 54] Simply put, "assessment evidence [should be] gathered from realistic settings and situations that reflect children's actual performance" (p. 11).[54]

Accommodations and modifications. Information should also be provided on strategies and procedures for accommodating and/or modifying the assessment to meet the needs of diverse learners.[20, 56] Teachers and other early childhood staff working with children "need a clear understanding of all children's current skills and abilities to ensure access and

participation, and to develop appropriate learning opportunities" (p. 5).[20] To capture a clear picture of children's abilities, it may be necessary for those administering the assessment to make certain accommodations and/or modifications for children.

Examples of assessment accommodations can include: allowing more time for children to respond to questions or perform tasks, altering how information is presented (e.g., verbally and/or visually), or increasing the size of pictures or print for children with visual impairments.[20] The DEC-CEC also provides examples of modifications that may be made to assessments, which include: using an alternative measure more suitable for an individual child; changing how a child demonstrates or performs a skill or task; assessing underlying, earlier, or prerequisite skills; and/or reducing the number of items assessed.

Frequency of administration. It is important that the assessment system associated with a given curriculum allows for the review of children's learning and progress on a regular and ongoing basis, as opposed to only assessing children's learning or progress at the beginning and/or end of the school year. [20, 56] "Formative assessments" regularly gather information from children and provide teachers with the most up-to-date picture of children's learning at any given point throughout the school year, which provides more opportunities to further support their learning. Ongoing assessment should provide mechanisms to document changes in individual children's learning and growth over time.[20, 24, 29, 34, 56, 59]

Data interpretation and use. The curriculum should provide guidance about how to interpret and use the information collected from the assessment, including sharing information with families.[54] Teachers and others who will use the assessment information need to understand how to observe, document, and analyze the results and how to summarize them as a whole.[20] Once the data have been collected and summarized, teachers then need to know how to interpret these results to better understand and improve their teaching and students' learning.[33, 50, 54] This can occur by learning how to adjust the curriculum, their teaching strategies, and/or the learning environment to guide future instruction and to guide the learning of individual children.[20, 29, 54, 59] NAEYC and NAECS/SDE[54] and DEC-CEC[20] discuss the process of using assessments to inform practice in terms of "feedback spirals" in which a curriculum framework (including its associated assessments) continually provides teachers with information to guide and change their practice as necessary.

Quality and Ease of Use

Importantly, the assessment instruments should be in compliance with professional criteria for quality,[54] as set forth by the American Educational Research Association, the American Psychological Association, and the National Center for Measurement in Education.[1] Assessments should be shown to be valid and reliable measures of children's learning and outcomes. If standardized, norm-referenced assessments are included in the curriculum, recently updated and nationally representative norms and standardized scores should be available. With regard to norm-referenced tests, it is important to note that many early childhood organizations and research caution against using standardized tests to assess young children's learning as a *sole means* of information.[24, 54, 76] Standardized assessments, when used in conjunction with other assessment methods, can provide important information about child development and learning, but *these tests are often not developed to specifically assess the curriculum goals*, meaning that "the information generated may not inform how well the curriculum is 'working' for any particular child or how a teacher's practice might be modified as a result" (p. 9).[29]

Reviewers should also evaluate the feasibility of the assessment(s) associated with the curriculum. They should consider the length of the assessment—is it too long, or can it be administered within a reasonable amount of time? Are the items appropriately complex, or are they too difficult to administer or for children to understand? All of the assessment methods included should appear to be part of a coherent,

comprehensive assessment system. Finally, given the heavy focus on assessments and outcomes in today's early childhood classrooms and programs, it may also be beneficial for reviewers to consider whether the assessment(s) associated with the curriculum under review can also be used to meet other program, state, or federal assessment requirements.

Points to consider when reviewing Evidence of Effectiveness:

- Authorship: Who conducted the research? Has someone other than the curriculum developer/author verified its effectiveness?
- Publication Source: Where is the research published (e.g., peer-reviewed journal)?
- Study Sample and Setting: Are the students, teachers, and programs included in studies similar to those of the program (e.g., age, ethnicity, language, income, teachers' educational background, prior training in the curriculum, class size, teacher-child ratio, locale, etc.)?
- Study Design and Rigor: How many groups of children were included in the study (e.g., some were exposed to the curriculum and some weren't)? Were significant differences found between groups? Are differences practically or educationally significant, as noted by the effect size? Are data available to show that the effects are long-lasting? Did the study assess teachers' implementation practices? Have the results of the study been replicated by others?
- Action Research and Personal Experience: Have teachers in similar programs conducted action research in their classrooms demonstrating positive child outcomes associated with the curriculum? Have similar programs successfully used the curriculum? Do other similar programs recommend the curriculum?

See Action Tool 5 (p. 45)

Evidence of Effectiveness

Another critical component to consider when reviewing a curriculum is whether empirical evidence is available that supports the curriculum and demonstrates its effectiveness—is the curriculum *research-based* and *research validated*? [20, 29, 41, 54, 56] A research-based curriculum means that the curriculum is built upon and includes components that have been shown to be effective and supported by previous empirical research. It's especially important that a curriculum be research-validated, which means that empirical studies have been conducted with the curriculum, evaluating its effectiveness in the classroom. Reviewers should keep these distinctions in mind and pay careful attention to what curriculum developers and authors mean when they report that their product is research-based.

In the current educational climate, educators must already be, or learn how to become, wise consumers of research.[45, 55] Without determining the true effectiveness of a curriculum, teachers may waste time and money using a curriculum that does not work with their student population. Some publishers claim that a curriculum is research-based, but these "claims of a research base are insufficient for establishing that [a curriculum] will be effective [within a given program]. *How* the research was conducted is a critical element in deciding whether such claims can be trusted" (p. 5).[45] It is for these reasons that reviewers should examine the research firsthand or, when possible, partner with universities or other research or educational organizations. Generally, the evidence supporting a curriculum should be "developmentally, culturally, and linguistically relevant for the children who will experience the curriculum…. [and be] organized around principles of child development and learning" (p. 7).[54]

Authorship

Reviewers should take note of *who* conducted the research. The National Institute for Early Education Research (NIEER) cautions against relying solely on research conducted by the developer or author, stating that "decision-makers need to be skeptical of curriculum developers' claims unless they are confirmed by researchers who are unaffiliated with the curriculum model" (p. 12).[29] This is not to say that curriculum developers may not be conducting rigorous research or presenting their findings clearly or accurately; rather, whether individuals not closely associated with the curriculum are also able to confirm its effectiveness.

Publication Source

It is important to consider *where* the research was published. The research being reviewed should be published in a *peer-reviewed* journal (e.g., Early Education and Development, Early Childhood Education Journal, Journal of Early Intervention, International Journal of Early Childhood, Journal of Research in Childhood Education, Child Development, etc.). The peer review process requires papers to be evaluated by other scientists and experts in the field. Although there is not a standardized set of criteria that all peer reviewers use, individual journals typically have stringent criteria for review of research methods and findings. The peer-review process is not error free and the information presented in such journals is not always accurate, but it does serve as a "general quality control mechanism [by providing] a 'first pass' filter that teachers can use to evaluate the plausibility of educational claims" (n.p.).[78] To determine whether a publication is peer-reviewed, review the journal or the journal website, noting headings such as "Guidelines for Authors" or "Manuscript Submission Requirements."

There are a variety of sources for finding education-related literature.[45] Online databases, for example, allow reviewers to search for research by topic. While some of these databases are free to the public (e.g., ERIC, the Education Resources Information Center, Ulrich's Periodicals Directory), others require a paid subscription (e.g., PsychInfo, ProQuest Education). Reviewers may also conduct a general internet search for research related to a curriculum. Certain sites, such as Google Scholar, can provide a targeted search limited to scholarly literature; however, when using search engines, it is important that reviewers pay close attention to the sources retrieved (e.g., authorship, study design and rigor, etc.). The U.S. Department of Education website can also be a valuable resource for locating research, providing studies from such sources as the National Center for Education Research and the What Works Clearinghouse, among others. Reviewers can find research on a given curriculum by searching the contents of specific journals manually or electronically; this option may be most helpful when searching for a specific article identified by another source.

Study Sample and Setting

When reviewing research, it is important to review the demographics and other characteristics of the study sample (children, teachers, schools, etc.). A curriculum that is effective for one group of children may not necessarily be effective for a group with different characteristics. For example, a curriculum may be effective for a group of children who are typically-developing, English-speaking, and from a middle-income background, but may not be as effective for group that includes a mix of children who are typically-developing as well as those with special needs, ELLs or DLLs, and from a low-income background (p. 10).[29]

The following characteristics should be considered as they relate to those of the program: age, ethnicity and culture, linguistic background, socioeconomic status, and special needs of children in the class; class size; number of teachers and paraprofessionals in each classroom; and locale (e.g., rural, suburban, urban). If information is available, the educational background of the teachers, including the amount of training they had in the curriculum, should also be considered and compared to that of the program. If the demographics of the study sample differ greatly from that of the program for which the

curriculum is being considered, reviewers should use caution in assuming that the curriculum would have the same effects if implemented in their program.

Study Design and Rigor

Various aspects of the study design should play into reviewers' evaluations of evidence related to a curriculum. There are many detailed and technical aspects of study designs and analyses that influence their quality, some of which are briefly reviewed here.[45, 78, 84] First, reviewers should consider the different groups of participants are included in the study. Does the study only include one group of children, all of whom were exposed to the curriculum? Or does it include two or more groups (some who were exposed to the curriculum and some who weren't) and compare performance on various tests or other variables? When only one group of students is included in a study, researchers cannot determine whether student outcomes are the result of the curriculum; they can only describe the association or correlation between variables, not whether one causes the other (note: this is not necessarily the case for single case baseline to intervention designs or regressive discontinuity designs). When multiple groups of students with differing degrees of exposure to the curriculum under review are included and compared, researchers are able to say that exposure to the curriculum was related to student outcomes, but they may not be able to determine how or why these relationships exist. Such studies are often referred to as being *experimental* or *quasi-experimental*.

When multiple groups of children are compared in the study, reviewers should determine whether *significant differences* were found between these groups.[45, 78, 84] Herein lies two important questions: (1) Did children who were exposed to the curriculum show better outcomes or scores than children who were not? and (2) If there were statistically significant differences between groups, were these differences practically or educationally significant? It's important that when significant differences are found between groups of children, that reviewers evaluate the claims of the authors, and determine the meaning and importance of any differences found. One way to do this is to consider the *practical* or *educational significance* of the findings, or "what difference will it make to education if a [certain curriculum] is adopted based on research results?"[45] For example, a study may find that a certain curriculum results in statistically significant school readiness test scores between children exposed to the curriculum versus those who were not. However, when looking at the actual difference between their scores, it may be that the group exposed to the curriculum only scored a few points higher. While it is an increase, a few points is likely not a large enough practical difference to make such a change.

One way to further evaluate the practical importance of findings is to consider the *effect size* of the program or practice, which "is a measure of the amount of difference between a treatment group and a control group that did not receive the treatment. The larger the effect size, the larger the effect of the [curriculum] on the outcome" (p. 47).[45] While there are several ways that effect sizes may be reported, the most commonly reported measure is *Cohen's d*. Typically, Cohen's *d* values are interpreted as:[45]

- Small effect sizes: *d* = .2 to .5
- Medium effect sizes: *d* = .5 to .8
- Large effect sizes: *d* = .8 and higher.

It's also important to think about when and how often the data related to child variables and outcomes were collected.[45, 78, 84] Were the data only collected once, or collected multiple times over a long period of time? Data collected over the long-term is referred to as *longitudinal data*, and can provide important information about the potential long-term effects of a curriculum. Consider a scenario in which a study collects outcome data from children at the end of the school year, and shows that the curriculum is effective and associated with positive child outcomes. This shows that the curriculum is effective in the short-term, but it cannot be determined how long such effects may last. If the same study also included follow-up data when children were entering first grade, for example, it

will be possible to make some conclusions about its long-term effects.

Whatever the results of a study and the conclusions made by its authors, reviewers should think about *why* differences (or lack thereof) may have been found (or not).[45, 78, 84] If multiple groups of children were included in the study, were they similar to one another in terms of age, culture, language, socioeconomic status, special needs, etc.? If not, how could such factors play a role in the effectiveness of the curriculum? It may also be possible that different teachers may have been implementing the curriculum differently from one another and/or differently than was intended by its developers; they may not have been implementing with fidelity. Did the study include a measure of implementation fidelity to ensure that implementation was consistent across classrooms? Reviewers should also check to find out whether the results have been replicated by other researchers.[45, 78, 84]

Action Research and Personal Experience

Reviewers may also talk to other programs or teachers who have conducted action research related to the curriculum under review. Action research is different from the traditional empirical research previously discussed. It involves the collection of data about current educational practices or curricula and resulting child outcomes, reflection on information obtained, development and implementation of an improvement plan, the collection of data after changes have been made, and the development of conclusions about the results of the improvement plan (p. 18).[45]

For example, a teacher may want to find out whether certain types of group activities can enhance her students' literacy skills. For the first couple of weeks, she performs a variety of whole group literacy activities with children and measures/observes their literacy performance. Then, for the following two weeks, she combines whole group and small group literacy activities. She then measures/observes children's literacy performance again. Comparing children's performance with whole group only versus whole and small groups, she finds that children's performance increases when they receive both types of instruction. Based on these results, she decides to change the way she teaches in her classroom.[45]

While this type of action research can be beneficial and provide important information about how a curriculum practically functions in the real world, it often fails to live up to the rigorous standards of empirical research. Furthermore, cause and effect relationships between a curriculum and child outcomes cannot be determined and, because these "studies" are often carried out by a teacher in a single classroom, similar results cannot be assumed for other classrooms or programs.[45]

Points to consider when reviewing Cultural, Socioeconomic, and Ethnic Sensitivity:

- Is the curriculum appropriately "context-sensitive" to the backgrounds of children in the program?
- Culturally-Relevant Tools and Materials: Does the curriculum include and/or allow for culturally appropriate tools, visuals, and learning opportunities? Does the curriculum allow for the promotion of cultural awareness of those represented in the program?
- Linguistically-Relevant Tools and Materials: Does the curriculum include tools and materials in languages represented in the program? Does it offer guidance on how to support young ELLs/DLLs with curriculum materials?

See Action Tool 6 (p. 47

It's important to note that, although it's certainly not empirical research, reviewers may also wish to contact districts similar to their own that use or have used the curriculum under review to find

out about their experiences, successes, and challenges. It may even be desirable to visit a school in which the curriculum is being implemented to see it in action and gain a better sense of how it may work within their program. While action research and personal experience can provide insights into how a curriculum may practically function in the classroom, this should not be the deciding factor as to whether a curriculum is further explored or adopted. Rigorous empirical research should serve as the basis for the evidence of effectiveness component.

Cultural, Socioeconomic, and Ethnic Sensitivity

Choosing a culturally sensitive curriculum has many benefits to children's development, both academic and non-academic, and is considered a key aspect of developmentally appropriate practice.[52] NAEYC and NAECS/SDE define culture as including, "ethnicity, racial identity, economic class, family structure, language, and religious and political beliefs, which profoundly influence each child's development and relationship to the world" (p. 2).[54] While it can be challenging to incorporate all of these different aspects into a curriculum, there are significant benefits of doing so.[26] A chosen curriculum should be appropriately "context-sensitive" to the backgrounds of children in the program, and recognize the important role of culture in shaping children's learning.[28, 32, , 41, 43, 52, 54, 56, 59]

The idea of choosing a culturally, socioeconomically, and ethnically sensitive curriculum has important implications, as our nation's children continue to become more diverse, with North Dakota being no exception. It's important that reviewers consider the demographics and culture of the programs for which they are choosing a curriculum. The North Dakota Kids Count data center provides annual data reports on various components of child characteristics and well-being at both the state and county levels, which may provide helpful contextual information for reviewers.[66]

Culturally-Relevant Tools and Materials

Culturally-relevant tools and materials to be utilized in various learning opportunities should be included that are sensitive to the diverse backgrounds and needs of children in the program. It's also important that the curriculum allow for teachers to build on children's prior cultural learning and experiences (which can be better understood via the engagement of families and communities), and reflect and/or allow for the inclusion of cultural perspectives found in the families, the program, and the community. A curriculum should promote cultural awareness and recognize the unique strengths of all cultural groups. One way to do this is to include the home and community culture within the curriculum, perhaps by inviting families and members of the community to share their culture. This not only promotes family and community engagement (another critical component discussed later), but it can also make children feel more included and lead to increased academic success.

Being exposed to a curriculum that values a child's background "contributes to children's identity development through active support for home cultures and languages,"[59, 89] and prepares them for a culturally diverse world beyond preschool. Related to the idea of preparing children for a diverse world, cultural components included in any curriculum should also be reviewed to make sure that they avoid any potential stereotypes.

Linguistically-Relevant Tools and Materials

Given the increasing percentages of children classified as ELLs and DLLs in preschools, a curriculum should include linguistically-relevant tools and materials that teachers can utilize in learning opportunities to help build a solid base for later learning .[26] A large body of research has shown that young children in the U.S. with limited English proficiency tend to demonstrate lower levels of academic achievement as compared to their English-speaking counterparts.[26] However, research also shows

that when these children are supported in developing both their home language and English, higher levels of academic achievement are supported.[26, 90]

When considering the linguistic sensitivity of a curriculum, NIEER (pp. 8-9)[29] points out that reviewers need to consider the goal of the program in supporting ELLs and DLLs. "Is the goal of the program to provide dual language instruction? Or, is it to acknowledge and support the home language as much as possible, but primarily teach English? …Or, is the goal to maximize acquisition of concepts and oral language in the home language and teach English as a second language?" The goal of the program may impact the type or amount of materials that are needed to best support teachers and instruction. Regardless of the goal, however, there should be linguistically sensitive curricular supports.

Points to consider when reviewing Professional Learning:

- Types of Training and Support Available: Are there multiple types of training available (e.g., initial and follow-up, site visits, refresher courses, virtual training, conferences)?
- Specialized Trainings and Support: Are trainings available for *all* individuals who work with children? Are there specialized trainings for specific groups, such as Title I or SPED? Are there additional resources available to support teachers' independent learning?
- Additional Points to Consider: What are the qualifications of the trainers? Do training opportunities align philosophically with other PD in which teachers are participating? Is there evidence supporting the effectiveness of the training program? Are there checklists or other tools available to monitor teachers' implementation of the curriculum?

See Action Tool 7 (p. 49)

Professional Learning

When introducing a new curriculum into a program, it is imperative that all teachers have access to a variety of professional learning opportunities, regardless of their educational background.[29] Even the best curriculum will fail during implementation if teachers do not have access to high quality, on-going professional development. As such, ongoing professional development and support (e.g., coaching) for teachers is often considered a key aspect of effective curriculum implementation, is essential to creating inclusive classrooms,[21] and has also been linked to increased educational gains for children in all domains and greater impacts on teachers.[5, 15, 30, 31, 36]

Types of Training and Support Available

There are a variety of professional development opportunities that may be available from the curriculum publisher or some other organization associated with the publisher. First, it is especially important that there be initial onsite training for teachers. It would also be very beneficial for teachers if follow-up site visits and other follow-up support are also available, such as refresher courses, online training opportunities (e.g., webinars), and/or ongoing coaching support. Another professional learning opportunity to consider is the possibility of linking training at other interested or experienced sites. Conferences or other off-site training may be additional training options to consider. Overall, there is a large continuum of possible professional services in which programs may participate and should consider—from larger training sessions, to more job-embedded opportunities that are closer to the work of the classroom.[58]

Specialized Trainings and Support

Ideally, training opportunities would be available for all early childhood staff who work with children in any capacity (e.g., teachers, assistant

teachers, directors, instructional coaches, etc.). Reviewers should consider whether there are professional learning opportunities specialized for Title I teachers, special education teachers, or coaches. Related to professional learning for teachers, it would also be appropriate to determine whether there are additional resources associated with the curriculum available, such as books or articles, to support independent learning by teachers (e.g., book studies).

Additional Points to Consider

There are many other factors related to professional learning that should also be reviewed, which will likely require reviewers to go beyond the information provided on curriculum websites and in related materials. First, it's important to find out whether trainers are required to have a background in the methods or curriculum being reviewed, as this can greatly influence the quality of the training.[9] NIEER points out that, "to be effective, such training should be provided by individuals who are familiar not only with adult learning principles, but also with the realities of teachers' classrooms" (p. 11).[29] Just as the overall curriculum should align with the philosophy and goals of the early childhood program, the professional learning opportunities available should also be philosophically compatible with other ongoing professional development teachers are or will be participating in (including other curricula, if programs are adopting multiple specialized curricula); teachers should not be receiving different messages about how or what to teach from different professional development sessions or interactions. Reviewers should consider whether there is empirical research available, preferably conducted by someone not associated with the curriculum or publishing company that demonstrates the effectiveness of the professional development training plan.

Studies have shown that children perform better and make larger gains in achievement when teachers implement the strategies of a curriculum with fidelity.[37, 87] Reviewers should consider whether checklists or other tools are available to formally or informally assess teachers' implementation of the curriculum to ensure that it is being implemented consistently and as it was intended.[41, 56] Such a These types of tools are also useful for teachers' daily practices and can provide them with a way to self-assess their implementation of a curriculum.

Family and Community Engagement

Family and community engagement refers to an ongoing and comprehensive system that encourages participation in children's schooling and learning via collaborative, reciprocal relationships between families/communities and the preschool program.[35, 52] While many programs likely have guidelines and initiatives in place to support family and community engagement, a curriculum should include materials and guidance to support these intitiatives. In fact, every major early childhood-related organization identifies family and/or community engagement as a critical component to consider when choosing a curriculum.[20, 29, 41, 54, 56]

In a review of some of the largest and most well-known longitudinal studies of early childhood programs (i.e., High/Scope Perry Preschool Project, Abecedarian Project, Chicago Child-Parent Centers), researchers concluded that, among many other factors, the inclusion of embedded family education and support services contributed to more effective programs and child outcomes than programs without such services.[30] Due to such benefits, the Harvard Family Research Project released a special brief on the topic of family involvement in early childhood education that called for increased "complementary learning" in the form of family engagement, supported by investments of programs in efforts to support teachers in "[creating] multiple avenues for [family] participation in their children's learning" (p. 4).[88] Collaboration with families and other community members is so important that the DEC-CEC refers to it as the very "structure and support for a curriculum framework" (p.7)[20], and states that "all young children should be served by

community, school, and family members who share a common vision for supporting their health, growth, and development" (p. 8).[20] The first step in engaging families and the community is to share information about the curriculum with them—the what, how, and why children are learning every day. Collaborating with families provides programs with the opportunity to understand the type of learning opportunities children have outside the classroom, and provides teachers with important information about children's home culture, routines, and the like to enhance or adjust the curriculum; [59, 83] this helps to create more culturally responsive and generally inclusive classrooms.[21]

While family engagement in children's schooling has been found to be beneficial for all children, it is especially important for children from low-income families.[16, 41] NDDPI has specific requirements in Title I schools for involving families and the community,[62, 64, 65] which are also important factors to consider when choosing a curriculum. While these types of involvement are required components for Title I schools, they can benefit all children and, as such, are included here and should be considered regardless of the population of children served in a program.

- **Parenting:** This type of family engagement requires that professional workshops, training opportunities, and other ideas to support families in parenting and assisting their child be offered. While it's unlikely that any preschool curriculum would include information on parenting, it's important for reviewers to determine what type of family supports are built into the curriculum that could be used during such family-focused training or support that meets the needs of families, rather than a "canned curriculum" that lacks the flexibility to do so. training or coaching of families can lead to a higher level of understanding, which then leads to families' increased capacity to support their children educationally.

- **Communicating with Families:** Guidance should be included about communicating with families about their child, including conferences, report cards and academic progress, and other verbal and/or written communication. As previously discussed in the *Data Interpretation and Use* portion of the Assessment critical component, a curriculum should provide detailed information about how teachers can share assessment results with parents in a clear and meaningful way.

Points to consider when reviewing Family and Community Engagement:

- Parenting: Does the curriculum include any built-in family supports, which may be used during family trainings or other support?
- Communicating with Families: Is there guidance about communicating with families about their child (e.g., conferences, academic progress, assessment results, etc.)?
- Learning at Home: Is there guidance and materials to help with extending the curriculum at home to support and enrich skills?
- Volunteering: Does the curriculum allow for and encourage volunteering in classroom learning opportunities?
- Decision Making: Is there support and/or guidance on involving families in important decisions about their children's' learning?
- Collaborating with Community: Is there guidance on and opportunity for involving community groups to support learning?
- Transitions: Is there guidance and resources available to support children's transitions from home to preschool and preschool to kindergarten?

See Action Tool 8 (p. 52)

- **Learning at Home:** Opportunities should be included to support learning at home. A good curriculum should have guidance and materials that teachers can use to help support learning in the home environment. The curriculum should provide information about how teachers can help families extend the curriculum at home to support basic skills using common household items, and also how to enrich the curriculum at home to support further learning of additional skills.

- **Volunteering:** A curriculum should allow for and encourage opportunities for volunteering by families in classroom activities, school events, and other community opportunities.

- **Decision Making:** Including families in "shared decision making to achieve a common goal" (p. 8),[20] both for individual children and the program as a whole, should be supported by the curriculum.[17, 27, 29] When families feel that they have a voice in their child's schooling, they're more likely to remain engaged.[2]

- **Collaborating with Community:** Collaborating with the community can include involving community groups in schools (e.g., having individuals from the community present information to children that is related to what they are learning), using community resources for school and family assistance, or community mentoring programs to support children and families.

- **Transitions:** Engaging families and communities (including other members in the schooling system) also includes providing them with information that can help children's transitions from home to preschool and from preschool to kindergarten.[69] A curriculum should include guidance and resources that can support these transitions.[29, 41, 59]

  Transitions, especially into formal K-12 schooling, can be challenging for young children, and actions, behaviors, and routines that were successful in preschool may no longer be successful in kindergarten.[59, 60] For such reasons, it is important that a curriculum include guidance on how to engage and work with other teachers and personnel in the school community to create a "coordinated continuum of learning goals and experiences" (p. 3)[59] across classrooms and grade levels to ensure smooth classroom and school transitions for children.[52] It is important to note that Title I has a requirement supporting transitions to kindergarten, although it is not listed as a specific type of family involvement. In North Dakota, such transitions are supported by the *Gearing Up for Kindergarten* program.[61]

Affordability and Feasibility

A practical critical component of evaluating a curriculum is its affordability and feasibility. Can it work within the budget and the program?

Affordability

Program budgets can often be delicate issues to navigate. However, it's important that a strong curriculum that appropriately addresses many other critical components is not dismissed solely because of its cost. If a curriculum is ideal for a particular program, there may be ways to reconsider budget or cost issues. Such cost issues may include: the initial cost of the curriculum materials; the cost for sustaining the curriculum (e.g., replacing materials); the cost of initial and ongoing training, coaching, and other technical assistance; and the cost of materials.

Given that the majority of young children's learning involves the use of and interactions with physical objects,[81] it's important to consider the cost of "open-ended" versus "close-ended" materials.[29] Open-ended materials are those that have many different and appropriate ways they can be used to support children's learning in different areas (e.g., blocks, sensory tables, art supplies). Close-ended materials, on the other

hand, only have one primary use and correct answer, supporting a limited set of skills (e.g., puzzles). While most curriculums are going to require both open- and close-ended materials, it is important to considering that open-ended materials can serve multiple purposes in the classroom.

Points to consider when reviewing Affordability and Feasibility:

- Affordability: Can the budget support the purchase and implementation of the curriculum, including costs related to: initial purchase, sustainability, training, and ongoing support?
- Feasibility: Can the curriculum be implemented in the program? Are the following program factors appropriate: child-teacher ratio; experience, skills, and education of staff; school day/week structure; and facility, space, and equipment requirements?

See Action Tool 9 (p. 54)

Feasibility

While issues with feasibility can be overcome, they may be more difficult to change. The feasibility of a curriculum is key because it helps to determine whether it can be implemented within a program as it is intended, or with fidelity. Reviewers should take stock of the experience, skills, and educational backgrounds of current staff, and determine the extent to which the curriculum depends on this.[29, 58, 82] If the current skills and education of the staff are not appropriate to implement the curriculum, can this issue be overcome with professional development or coaching/mentoring? It should also be noted whether a curriculum requires a certain child-to-teacher ratio and, if so, whether that ratio can reasonably be expected within the program. The amount of time required to implement the curriculum as it is intended is yet another important, and often overlooked, factor to consider. Are there enough hours in the day and/or days in the school week to successfully implement the curriculum? Finally, any specific space, facility, or large equipment requirements of the curriculum must also be taken into account.

The Review Process and Action Tools

Review Process

The curriculum review process involves many components and, depending on how many curricula are to be reviewed, can require a large amount of time to complete. In fact, it's recommended that programs allow at least six months between the start of the review process and the time of adoption of the new curriculum. Some of the tasks included in the review process include: establishing a review coordinator and review team; identifying the program's goals in choosing a curriculum,; identifying priority critical components that are non-negotiable; gathering materials for review; completing the Action Tools; and engaging in discussions and making a final decision about which curriculum should be adopted. More detailed information about completing the review process is presented in the Appendix.

Action Tools

The Appendix contains nine Action Tools (one for each Critical Component) and a final Review Synthesis Tool that aid reviewers in choosing an appropriate curriculum for their program. These Tools are designed to help reviewers navigate their way through the decision-making process needed to evaluate a preschool curriculum based on the presence (or absence) of the Critical Components outlined previously in this Guide. Prior to completing the Action Tools and reviewing curricula, the review team should determine the goals of the program for selecting a curriculum, and also determine which Critical Components are of the highest priority and are the most relevant for their program's purpose and needs.

Points to consider when completing the Review Synthesis:

- Does the curriculum adequately address all nine critical components, particularly those identified as key for your program?
- What are the potential solutions for any deficits of the curriculum?
- Taking all of the evidence into consideration, could the curriculum be successfully implemented in your program?

See Action Tool 10 (p. 55)

As reviewers well know, choosing a curriculum is not an easy process and no curriculum offers a "one size fits all" approach. While the checklists provided within the tools are meant to help focus reviews on critical components of effective curricula, the final decision as to whether or not a curriculum will be "the one" for a given program will depend on the unique context, population, and needs of that program. It is important to remember that no one curriculum will meet every single Action Tool item, and that programs will need to fill in any potential gaps in coverage with supplemental materials and/or other programs.

Conclusion

This Guide is intended to help practitioners make good decisions when selecting a curriculum based on a set of components critical to preschool learning. The Guide offers analytical tools and strategies that, if used effectively, will help reviewers choose the best curriculum for their program to optimally support children's learning. In assisting reviewers choose an effective and appropriate preschool curriculum; this Guide can also support preschool educators as they work towards implementing a standards-focused curriculum that will help to strengthen the PreK-12 articulation of learning. This process will build a firm foundation upon which future academic and non-academic success can be attained by all of North Dakota's children.

The importance of preschool learning opportunities and the need for a quality curriculum to guide these learning opportunities is a current reality for early childhood programs in the United States. Requirements that Title I Preschool programs show evidence and use of a curriculum, and the growing number of school-based Title I programs and school-based early childhood education programs that are aligned with K-12 schools make it clear that this country is moving more and more towards a PreK-12 system of education.

References

[1]AERA (American Educational Research Association), APA (American Psychological Association), & NCME (National Council on Measurement in Education). (1999). *Standards for educational and psychological testing.* Washington, DC: American Educational Research Association.

[2]Anderson, K. J., & Minke, K. M. (2007). Parent involvement in education: Toward an understanding of parents' decision making. *The Journal of Educational Research, 100*, 311-323.

[3]Ashdown, D. M., & Bernard, M. E. (2012). Can explicit instruction in social and emotional learning skills benefit the social-emotional development, well-being, and academic achievement of young children? *Early Childhood Education Journal, 39*, 397-405.

[4]Bagnato, S. J., Neisworth, J. T., & Pretti-Frontczak, K. L. (2010). *LINKing authentic assessment and early childhood intervention: Best measures for practices* (4th ed.). Baltimore, MD: Paul H. Brookes.

[5]Barnett, W. S. (2008). *Preschool education and its lasting effects: Research and policy implications*. Boulder and Tempe, Education and the Public Interest Center & Education Policy Research Unit. Retrieved from www.epicpolicy.org/ publication/preschool-education

[6]Blair, C. (2002). School readiness: Integrating cognition and emotion in a neurobiological conceptualization of children's functioning at school entry. *American Psychologist, 57*(2), 111-127.

[7]Blair, C., & Razza, R. P. (2007). Relating effortful control, executive function, and false believe understanding to emerging math and literacy ability in kindergarten. *Child Development, 78*, 647-663.

[8]Bodrova, E., & Leong, D. (2003). Chopsticks and counting chips: Do play and foundational skills need to compete for the teacher's attention in an early childhood classroom? *Young Children, 58*, 10-17.

[9]Boudah, D. J., Logan, K. R., & Greenwood, C. R. (2001). The research to practice projects: Lessons learned about changing teacher practice. *Teacher Education and Special Education, 24*, 290-303.

[10]Bowman, B. T., Donovan, S., & Burns, M. S. (Eds.). (2001). *Eager to learn: Educating our preschoolers.* Washington, DC: National Academy Press.

[11]Burger, K. (2010). How does early childhood care and education affect cognitive development? An international review of the effects of early interventions for children from different social backgrounds. *Early Childhood Research Quarterly, 25*(2), 140-165.

[12]Camilli, G., Vargas, S., Ryan, S., & Barnett, W. S. (2010). Meta-analysis of the effects of early education interventions on cognitive and social development. *Teachers College Record, 112*, 579-620.

[13]Campbell, F. A., Ramey, C. T., Pungello, E. P., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. *Applied Developmental Science, 6*, 42-57.

[14]Castenell, L. A. (1983). Achievement motivation: An investigation of adolescents' achievement patterns. *American Educational Research, 20*, 503-510.

[15]Chambers, B., Cheung, A., Slavin, R. E., Smith, D., & Laurenzano, M. (2010). *Effective early childhood education programs: A systematic review*. Reading, England: CfBT Education Trust. Retrieved from www.cfbt.com/ evidenceforeducation/pdf/15349_ECE-Blocks_v5.pdf

[16]Chang, M., Park, B., Singh, K., & Sung, Y. Y. (2009). Parental involvement, parenting behaviors, and children's cognitive development in low-income and minority families. *Journal of Research in Childhood Education, 23*, 309-324.

[17]Copple, C. & Bredekamp, S. (Eds.). (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8* (3rd ed.). Washington, DC: NAEYC.

[18]Darragh, J. (2007). Universal design for early childhood education: Ensuring access and equity for all. *Early Childhood Education Journal, 35*, 167-171.

[19]Day, C. A., & Burns, B. M. (2011). Characterizing

the achievement motivation orientation of children from low- and middle-income families. *Early Education & Development, 22*(1), 105-127.

[20]DEC-CEC (Division for Early Childhood of the Council for Exceptional Children). (2007). *Promoting positive outcomes for children with disabilities: Recommendations for curriculum, assessment, and program evaluation.* Retrieved from http://www.decsped.org/uploads/docs/about_dec/position_concept_papers/Prmtg_Pos_Outcomes_Companion_Paper.pdf

[21]DEC/NAEYC. (2009). *Early childhood inclusion: A joint position statement of the Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC)*. Chapel Hill, NC: The University of North Carolina, FPG Child Development Institute. Retrieved from http://www.naeyc.org/files/naeyc/file/positions/DEC_NAEYC_EC_updatedKS.pdf

[22]Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review, 95*, 256-273.

[23]Epstein, A. S. (2007). *The intentional teacher: Choosing the best strategies for young children's learning.* Washington, DC: NAEYC.

[24]Epstein, A. S., Schweinhart, L. J., DeBruin-Parecki, A., & Robin, K. B. (2004). Preschool assessment: A guide to developing a balanced approach. *Preschool Policy Matters, 7*, 1-12. Retrieved from http://nieer.org/resources/policybriefs/7.pdf

[25]Espinosa, L. M. (2002). High quality preschool: Why we need it and what it looks like. *NIEER Policy Briefs, 1*, 1-12. Retrieved from http://nieer.org/resources/policybriefs/1.pdf

[26]Espinosa, L. M. (2005). Curriculum and assessment considerations for young children from culturally and linguistically and economically diverse backgrounds. *Psychology in the Schools, (42)*8, pp. 1-16.

[27]Fiese, B. H., Eckert, T., & Spagnola, M. (2006). Family contexts in early childhood: A look at practices and beliefs that promote early learning. In B. Spodek & O. N. Saracho (Eds.), *Handbook of research on the education of young children* (2nd ed.) (pp. 393-409). Mahwah, NJ: Lawrence Erlbaum.

[28]Frede, E. C. (1998). Preschool program quality in programs for children in poverty. In W. S. Barnett & S. S. Boocock (Eds.), *Early care and education for children in poverty: Promises, programs, and long-term results* (pp. 77-98). Albany, NY: State University of New York Press.

[29]Frede, E. C., & Ackerman, D. J. (2007). *Preschool curriculum decision-making: Dimensions to consider.* New Brunswick, NJ: NIEER (National Institute for Early Education Research). Retrieved from http://nieer.org/resources/policybriefs/12.pdf

[30]Galinsky, E. (2006). *The economic benefits of high-quality early childhood programs: What makes the difference?* Washington, DC: The Committee for Economic Development.

[31]Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, K. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*, 915-945.

[32]Golbeck, S. L. (2001). Instructional models for early childhood: In search of a child-regulated/teacher-guided pedagogy. In S. L. Golbeck (Ed.), *Psychological perspectives on early childhood education: Reframing dilemmas in research and practice* (pp. 3-34). Mahwah, NJ: Lawrence Erlbaum Associates.

[33]Grisham-Brown, J. L., & Pretti-Frontczak, K. L. (2003). Preschool teachers' use of planning time for the purpose of individualizing instruction for young children with special needs. *Journal of Early Intervention, 26*(1), 31-46.

[34]Gullo, D. F. (2006). Alternative means of assessing children's learning in early childhood classrooms. In B. Spodek & O. N. Saracho (Eds.), *Handbook of research on the education of young children* (2nd ed.) (pp. 443-455). Mahwah, NJ: Lawrence Erlbaum.

[35]Halgunseth, L. C., Peterson, A., Stark, D. R., & Moodie, S. (2009). *Family engagement, diverse families, and early childhood education programs: An integrated review of the literature*. Washington, D.C.: NAEYC.

[36]Halle, T., Zaslow, M., Tout, K., Starr, R., Wessel, J., & McSwiggan, M. (2010). Beyond how much: What we are learning about structuring effective early childhood professional development. In S. B. Neuman & M. L. Kamil

(Eds.), *Preparing teachers for the early childhood classroom: Proven models and key principles* (pp. 175-188). Baltimore, MD: Paul H. Brookes.

[37]Hamre, B. K., Justice, L. M., Pianta, R. C., Kilday, C., Sweeny, B., Downer, J. T., & Leach, A. (2010). Implementation fidelity of MyTeachingPartner literacy and language activities: Association with preschoolers' language and literacy growth. *Early Childhood Research Quarterly*, 25, 329-347.

[38]Horn, E., Lieber, J., Li, S. M., Sandall, S., & Schwartz, I. (2000). Supporting young children's IEP goals in inclusive settings through embedded learning opportunities. *Topics in Early Childhood Special Education, 20*(4), 208-223.

[39]Huffman, L. R., & Speer, P. W. (2000). Academic performance among at-risk children: The role of developmentally appropriate practices. *Early Childhood Research Quarterly, 15*(2), 167-184

[40]Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79*, 491-525.

[41]Klein, L., & Knitzer, J. (2006). *Pathways to early school success: Effective preschool curricula and teaching strategies* (Issue Brief No. 2). New York, NY: National Center for Children in Poverty. Retrieved from www.nccp.org/ publications / pdf/text_668.pdf

[42]Knitzer, J., & Lefkowitz, J. (2005). *Resources to promote social and emotional health and school readiness in young children and families: A community guide.* New York, NY: National Center for Children in Poverty. Retrieved from http://www.caseyfoundation. net/upload/publicationfiles/ec3655k745.pdf

[43]Kontos, S., Burchinal, M., Howes, C., Wisseh, S., & Galinsky, E. (2002). An eco-behavioral approach to examining the contextual effects of early childhood classrooms. *Early Childhood Research Quarterly, 17, 239-258.*

[44]Laing, S. P., & Kamhi, A. (2003). Alternative assessment of language and literacy in culturally and linguistically diverse populations. *Language, Speech, and Hearing Services in Schools, 34*, 44-55.

[45]Lauer, P. A. (2006). *An education research primer: How to understand, evaluate, and use it.* San Francisco, CA: Jossey-Bass.

[46]Lieber, J., Butera, G., Hanson, M., Palmer, S., Horn, E., Czaja, C., Diamond, K., Goodman-Jansen, G., Daniels, J., Gupta, S., & Odam, S. (2009). Factors that influence the implementation of a new preschool curriculum: Implications for professional development. *Early Education and Development, 20*, 456-481.

[47]Lieber, J., Hanson, M., Butera, G., Palmer, S., Horn, E., & Czaja, C. (2010). Sustainability of a preschool curriculum: What encourages continued use among teachers? *NHSA Dialog, 13*, 225-242.

[48]Lloyd, J., & Barenblatt, L. (1984). Intrinsic intellectuality: Its relations to social class, intelligence, and achievement. *Journal of Personality and Social Psychology, 46*, 646-654.

[49]Malakoff, M. E., Underhill, J. M., & Zigler, E. (1998). Influence of inner-city environment and Head Start experience on effectance motivation. *American Journal of Orthopsychiatry, 68*, 630-638.

[50]McAfee, O., & Leong, D. J. (2010). *Assessing and guiding young children's development and learning* (5th ed.). Upper Saddle River, NJ: Pearson.

[51]McClelland, M. M., Cameron, C. E., Connor, C. M., Farris, C. L., Jewkes, A. M., & Morrison, F. J. (2007). Links between behavioral regulation and preschoolers' literacy, vocabulary, and math skills. *Developmental Psychology, 43*, 947-959.

[52]NAEYC (National Association for the Education of Young Children). (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8.* Washington, DC: NAEYC. Retrieved from http://www.naeyc.org/files/naeyc/file/positio ns/PSDAP.pdf

[53]NAEYC & Fred Rogers Center for Early Learning and Children's Media. (2012). *Technology and interactive media as tools in early childhood programs serving children from birth through age 8: A Joint Position Statement*. Washington, DC: NAEYC.

[54]NAEYC & NAECS/SDE (National Association of Early Childhood Specialists in State

Departments of Education). (2003). *Joint position statement on early childhood curriculum, assessment, and program evaluation: Building an effective, accountable system in programs for children birth through age 8.* Washington, DC: NAEYC. Retrieved from http://www.naeyc.org/files/naeyc/file/positions/pscape.pdf

[55]National Institute for Literacy. (2006). *What is scientifically based research? A guide for teachers.* Washington, DC: Author. Retrieved from lincs.ed.gov/publications/pdf /science_research.pdf

[56]NCQTL (National Center on Quality Teaching and Learning). (2011a). *Choosing a preschool curriculum.* Retrieved from http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/preschoolcurriculum.pdf

[57]NCQTL (National Center on Quality Teaching and Learning). (2011b). *Curriculum, assessment, and the Head Start framework: A alignment review tool.* Retrieved from http://eclkc.ohs.acf.hhs.gov/ hslc/tta-system /teaching/docs/Alignment-Guide-2.pdf

[58]Neuman, S. B., & Kamil, M. L. (Eds.). (2010). *Preparing teachers for the early childhood classroom: Proven models and key principles.* Baltimore, MD: Paul H. Brookes.

[59]New, R., Palsha, S., & Ritchie, S. (2009). *Issues in preK-3rd education: A FirstSchool framework for curriculum and instruction* (No. 7). Frank Porter Graham Child Development Institute. Retrieved from http:// *projects.fpg.unc.edu/~firstschool/assets/1stSchoolBrief7.pdf*

[60]NICHD (National Institute of Child Health and Human Development) Early Child Care Research Network. (2005). Early child care and children's development in the primary grades: Follow-up results from the NICHD study of early child care. *American Educational Research Journal, 42*, 537-570.

[61]NDDPI (North Dakota Department of Public Instruction). (n.d.)(a). *Gearing up for kindergarten*. Retrieved from http://www.dpi.state.nd.us/title1/earlychild/index.shtm

[62]NDDPI. (n.d.)(b). *Guidance on operating a Title I preschool program*. Retrieved from http://www.dpi.state.nd.us/title1/earlychild/opguide.pdf

[63]NCCIC (National Child Care Information and Technical Assistance Center). (2011). *Status of ELG initiatives.* Retrieved from http://occ-archive.org/resource/status-elg-initiatives

[64]NDDPI. (n.d.)(c). *Parent involvement*. Retrieved from http://www.dpi.state.nd.us/title1/targeted/require/parent/index.shtm

[65]NDDPI. (n.d.)(d). *Parental involvement: Targeted assistance and schoolwide programs requirements in Title I*. Retrieved from http://www.dpi.state.nd.us/title1/targeted/require/parent/require.pdf

[66]North Dakota Kids Count. (n.d.). *North Dakota KIDS COUNT Publications*. Retrieved from http://www.ndkidscount.org/

[67]Peña, E., Quinn, R., & Iglesias, A. (1992). The application of dynamic methods to language assessment: A non-biased procedure. *Journal of Special Education, 26*, 269-281.

[68]Pianta, R. C. (2000). *Enhancing relationships between children and teachers.* Washington, DC: American Psychological Association.

[69]Pianta, R. C., & Kraft-Sayre, M. (2003). *Successful kindergarten transition: Your guide to connecting children, families, and schools.* Baltimore, MD: Paul H. Brookes.

[70]Ramey, S. L., & Ramey, C. (1992). Early educational intervention with disadvantaged children—To what effect? *Applied and Preventive Psychology*, *1*(3), 131-140.

[71]Raspa, M. J., McWilliam, R. A., & Ridley, S. M. (2001). Child care quality and children's engagement. *Early Education and Development, 12*, 209-224.

[72]Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2002). *Age 21 cost benefit analysis of the Title I Chicago Child-Parent Centers*. Madison, WI: University of Wisconsin, Madison Institute for Research on Poverty.

[73]Rhoades, B. L., Warren, H. K., Domitrovich, C. E., & Greenberg, M. T. (2011). Examining the link between preschool social-emotional competence and first grade academic achievement: The role of attention skills. *Early Childhood Research Quarterly, 26*(2), 182-191.

[74]Sandall, S. R., & Schwartz, I. S. (2008). *Building blocks for teaching preschoolers with special needs* (2nd ed.). Baltimore, MD: Paul H. Brookes.

[75]Schweinhart, L. J., & Weikart, D. P. (1997). The

High/Scope preschool curriculum comparison study through age 23. *Early Childhood Research Quarterly, 12*, 117-143.

[76]Scott-Little, C., Kagan, S. L., & Clifford, R. M. (2003). *Assessing the state of state assessments: Perspectives on assessing young children.* Greensboro, NC: SERVE Center at UNCG.

[77]Shonkoff, J., & Phillips, D. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development.* Washington, DC: National Academy Press.

[78]Stanovich, P. J., & Stanovich, K. E. (2003). *Using research and reason in education: How teachers can use scientifically based research to make curricular and instructional decisions.* National Institute for Literacy. Retrieved from http://www.nichd.nih.gov/publications/pubs/using_research_ stanovich.cfm

[79]Stipek, D. J. (2002). *Motivation to learn: Integrating theory and practice* (4th ed.). Boston, MA: Allyn & Bacon.

[80]Stipek, D. J., Feiler, R., Daniels, D., & Milburn, S. (1995). Effects of differential instruction approaches on young children's achievement and motivation. *Child Development, 66*, 209-223.

[81]Sutterby, J. A., & Frost, J. (2006). Creating play environments for early childhood: Indoors and out. In B. Spodek & O. N. Saracho (Eds.), *Handbook of research on the education of young children* (2nd ed.) (pp. 305-321). Mahwah, NJ: Lawrence Erlbaum.

[82]Tanner, D., & Tanner, L. (Eds.). (2007). *Curriculum development: Theory into practice* (4th ed.). Upper Saddle River, NJ: Pearson.

[83]Trumbull, E., Rothstein-Fisch, C., Greenfield, P. M., & Quiroz, B. (2001). *Bridging cultures between home and school: A guide for teachers—with a special focus on immigrant Latino families*. San Francisco, CA: Lawrence Erlbaum.

[84]US Department of Education. (2003). *Identifying and implementing educational practices supported by rigorous evidence: A user friendly guide.* Washington, DC: Author.

[85]US Department of Education. (2008). *Effects of preschool curriculum program on school readiness: Report from the Preschool Curriculum Evaluation Research Initiative*. Washington, DC: Author.

[86]Vygotsky, L. (1986). *Thought and language*. Cambridge, MA: MIT Press.

[87]Wasik, B. A., Bond, M. A., & Hindman, A. (2006). The effects of a language and literacy intervention on Head Start children and teachers. *Journal of Educational Psychology*, 98(1), 63-74.

[88]Weiss, H., Caspe, M., & Lopez, M. E. (2006). *Family involvement in early childhood education* (Family Involvement Makes a Difference No. 1). Cambridge, MA: Harvard Family Research Project. Retrieved from http://www.hfrp.org/content/download/1181/48685/file/earlychildhood.pdf

[89]Weiss, H. B., Kreider, H. M., Lopez, M. E., & Chatman, C. M. (2005). *Preparing educators to involve families: From theory to practice.* Thousand Oaks, CA: Sage.

[90]Winsler, A., Diaz, R. M., Espinosa, L., & Rodriguez, J. L. (1999). When learning a second language does not mean losing the first: Bilingual language development in low-income, Spanish-speaking children attending bilingual preschool. *Child Development, 70*, 349–362.

[91]Wortham, S. C. (2010). *Early childhood curriculum: Developmental bases for learning and teaching* (5th ed.). Upper Saddle River, NJ: Pearson.

Appendix

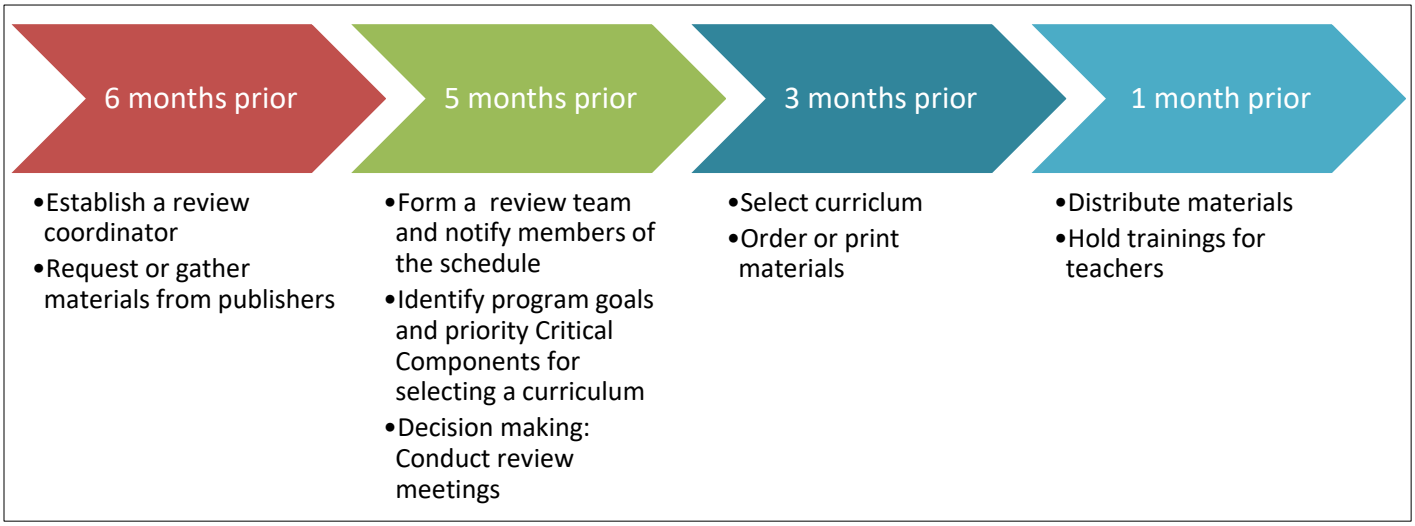
Action Tools Review and Process Overview

The purpose of the Actions Tools are to help programs determine how well an early childhood curriculum aligns with each of the critical components of a comprehensive curriculum identified in this Guide. The Action Tools do not yield a composite score that can be used to determine whether a curriculum should be adopted. Instead, the Tools assist review teams to critically analyze a curriculum and make an informed decision about whether or not to adopt it for their program. To effectively review curricula, it is important that programs allocate sufficient time and personnel for the process. Further recommendations for the review process are discussed in the following sections, and specific directions for how to review each Critical Component can be found within each Action Tool.

Suggested timeline for review process

The time required for review of curricula will depend on several factors, including reviewer familiarity with the content being reviewed, the breadth and scope of the curriculum under review, the amount of accompanying materials (e.g., DVDs, online guides, etc.), and the extent to which the materials are easily available for all reviewers. If members are able to have their own set of materials to review, the timeline may be shorter. However, if reviewers are sharing materials, a predetermined review schedule may be necessary and take more time to coordinate. In general, allowing *at least* 6 months for completing the process of selecting a curriculum prior to planned adoption and implementation is recommended. Figure 2 below provides a suggested timeline for completing steps in the review process. Selected steps in this review are further described in the following sections.

Figure 2. **Suggested timeline for curriculum review and selection process.**



Establish a review coordinator

It is recommended that a coordinator be established to lead a review team through the review process. The coordinator should be someone who understands the curriculum needs of the program and should have experience in implementing curricula. The coordinator responsibilities might include: communicating with publishers to gather sample materials for review, ensuring members of the review team have needed materials for review, scheduling meetings for the review team, compiling and summarizing review team comments, and facilitating the decision-making process.

Request or gather materials

The review coordinator should gather the curriculum resources to be reviewed and make them available to all team members. If a curriculum under review is a large box curriculum, it may be helpful to keep the materials in a central location for team members to review when convenient. Many curricula have an online component, and instructions to access curricula information electronically should be distributed to team members.

Form a review team

The Action Tools are not intended to be used by any single staff member alone. Rather, the tools are designed to be used by teams or small groups from varying program positions and with varying areas of experience. When possible, review teams should include members from various positions in the program, including, but not limited to: administrators; curriculum directors; early childhood

education teachers and support teachers including Title I, early childhood special education, speech and language pathologists; and parents. Consider the critical components for selecting a curriculum and determine if there are any gaps in expertise on the team that need to be filled by seeking external guidance. For example, one critical component requires that teams review a curriculum for evidence of effectiveness. It may be appropriate to seek assistance from an external source, such as local higher education faculty, who may have more experience in reviewing research materials for evidence of effectiveness. Finally, the review team coordinator should notify team members of the review schedule and meetings in advance. If it is not possible to obtain a set of materials for each team member to review, it is helpful to plan a group review of materials for no more than one or two curricula per meeting.

Identify program goals and priority Critical Components

When beginning the process of selecting a curriculum, programs should determine their goals and priorities for adopting a new curriculum. Identifying program goals for selecting a curriculum will help to screen out less appropriate choices. If a curriculum doesn't at least meet the goals or priorities for choosing a curriculum, then it could be immediately eliminated from further consideration.

Prior to the critical component Action Tools is a table for programs to identify their goals and critical component priorities for selecting a curriculum (p. 32). These are useful to refer to throughout the review process and when making a final decision. It is highly recommended as best practice for programs to only consider curricula that *at least* demonstrate evidence of effectiveness, but each program must determine their "must haves" or priorities the curriculum should address. For example, a program may have a strong literacy curriculum they want to supplement, and choose to focus their selection process on identifying a high quality math curriculum. A program with this priority may immediately eliminate from consideration any curriculum that does not align with the math domain elements in Action Tool 2.

Decision making: Conduct review meetings

Each member should complete a summary for each component, identifying the number of items they determined to be in alignment and the curriculum's strengths and weaknesses for that component. After reviewing each component, teams should then collaboratively complete an overall recommendation for the curriculum (represented by Action Tool 10: Review Synthesis), identifying areas of alignment and potential deficits (and accompanying solutions), as well as rationale for why the curriculum should or shouldn't be adopted. If reviewers' recommendations are not the same, it is best to try and reach consensus. The review coordinator should lead the discussion to arrive at consensus. It is best to focus the discussion on those components for which there is the least agreement on degree of alignment. Teams having a hard time reaching consensus may want to factor in the extent to which the curriculum under discussion meets the priorities the team identified at the beginning of the review process. If one curriculum clearly aligns with program goals for curriculum adoption, it may add more weight to that overall recommendation.

Steps to Reaching Consensus

1. Each member completes **individual component summaries**.
2. Each member uses component summaries to complete **overall summary and recommendation**.
3. Compare overall recommendations and **discuss components with less alignment** when reviewers disagree.
4. Consider **which curriculum most closely aligns with what the team identified as critical priorities** for selecting a curriculum.

Alignment: North Dakota Pre-kindergarten Standards

The Standards reflect North Dakota's commitment to provide high quality early childhood educational programs. Such programs foster the development of the solid foundation necessary for lifelong learning and academic success. The purposes and intentions, and roles are consistent with reports from several national groups dedicated to the study and development of state-level early learning standards (NAEYC & NAECS/SDE, 2002; Shore, Bodrova, & Long, 2004).

The Standards were evaluated against and aligned with the North Dakota Kindergarten Standards, The Head Start Child Outcomes Framework and the North Dakota Early Learning Guidelines to ensure that the Standards are useful, accessible, and reflect an intentional integration of developmental knowledge and skills appropriate for preschool-aged children. Finally, the Standards are intended to be a living document; review of the Standards may become necessary to assure that the Standards reflect the most current and comprehensive research on early childhood.

Program Goals and Priority Critical Components for Selecting a Curriculum

Directions: With your review team, think about and discuss what your program's goals are for selecting a curriculum; record these goals in the table below. For example, do you want to focus specifically on increasing children's scores in a particular domain (e.g., math, literacy, social-emotional development), or do you want a curriculum that is more comprehensive and will focus more broadly on all domains of development? Also discuss with your team which Critical Components are of the highest priority and non-negotiable for your program. For example, your team may decide that the adopted curriculum must meet the Evidence of Effectiveness component and that any curriculum without empirical research demonstrating its effectiveness will not be considered. Whatever your team decides, keep these goals and priority components in mind as you are reviewing and selecting a curriculum.

Program Goal(s) in Selecting a Curriculum	Rationale/Additional Information
Priority Critical Component(s)	**Rationale/Additional Information**

Action Tool 1: Alignment with Program Philosophy, Mission, and Goals

Name of Reviewer: _____ Date: _____

Name of Curriculum: _____

Directions: Read through the curriculum materials and answer the questions below. Complete the information in the left column about your program first, then determine whether the curriculum is aligned with your program and complete the middle columns. Finally, record your overall summary and recommendations regarding this component in the appropriate table.

	Curriculum Aligned?		Notes
	YES	NO	
What is the philosophical approach of your program with regard to child development and learning?			
What is the stated mission of your Program?			
What are the specific goals of your Program?			

Summary and Recommendations Regarding Alignment with Program Philosophy, Mission, and Goals

Total YES = _____ **Total NO = _____**

Action Tool 2: Domains and Domain Elements

Name of Reviewer: _____ Date: _____

Name of Curriculum: _____

Directions:

- **Coverage:** Review the materials and determine whether all of the domains and domain elements are included in the curriculum under review. If the domains and/or domain elements are specifically identified as learning targets for that curriculum, determine whether or not there is adequate coverage of each domain/domain element. Place a ✓ in the column if there is adequate coverage of the domain/domain element. If the curriculum under review has a different name for a particular domain or domain element, record that name in the Notes column.
- **Balance and Integration:** Determine whether there is a relatively even representation and integration within and across all domains (and accompanying domain elements), or that the content is focused on a particular area of need identified by the program (e.g., if the focus is on choosing a math curriculum, content should be more heavily focused on this area). Place a ✓ in the column if the domains/domain elements are appropriately balanced and integrated.
- **Depth:** Determine the degree to which the curriculum provides a sequence of developmentally important skills that lay the foundation for later development and learning. Place a ✓ in the column if the domains/domain elements are developmentally important and appropriately sequenced within the curriculum.
- **Difficulty:** Determine the degree to which the curriculum identifies skills and expectations that are intellectually challenging for children at developmentally appropriate levels. Place a ✓ in the column if the difficulty of the domain/domain element is appropriately represented in the curriculum.

Finally, record your overall summary and recommendations regarding this component in the appropriate table.

NOTE: Reviewers should consult the North Dakota Pre-kindergarten Content Standards when completing this Action Tool.

Domain/Domain Element	Coverage	Balance & Integration	Depth	Difficulty	Notes
Physical Development					
Movement Skills					
Control in Movement					
Movement Concepts					
Benefit of Physical Activity					
Participates in Physical Activity					
Psychological Response to Physical Activity					

Domain/Domain Element	Coverage	Balance & Integration	Depth	Difficulty	Notes
Procedures and Personal Responsibility					
Working with Others					
Health					
Human Growth and Development					
Body Systems					
Personal Health					
Disease and Illness					
Safety and Injury Prevention					
External Influences on Health					
Goal Setting					
Social and Emotional Development					
Self-Concept					
Self-Regulation					
Self-Reliance and Resiliency					
Social Competence					
Interactions with Peers and Adults					
Approaches to Play and Learning					
Initiative and Curiosity					
Engagement and Persistence					
Flexibility and Risk Taking					
Imagination, Invention, and Creativity					
Analysis and Evaluation					
Expressive Arts and Creative Thinking					
Movement Elements					
Acting					
Singing					
Instrumental Performance					
Listening					
Visual Art Media, Technique, and Processes					
Subject Matter, Theme, Symbols, and Ideas in					

Domain/Domain Element	Coverage	Balance & Integration	Depth	Difficulty	Notes
Visual Art					
Connections					
Language and Literacy					
Key Ideas and Details					
Craft and Structure					
Integration of Knowledge and Ideas					
Range of Reading and Level of Text Complexity					
Print Concepts					
Phonological Awareness					
Phonics and Word Recognition					
Text Types and Purposes					
Production and Distribution of Writing					
Research to Build and Present Knowledge					
Comprehension and Collaboration					
Presentation of Knowledge and ideas					
Conventions of Standard English					
Knowledge of Language					
Vocabulary Acquisition and Use					
Mathematics and Logical Thinking					
Number Names and the Count Sequence					
Count Objects					
Compare Numbers					
Addition as Adding To, and Subtraction as Taking From					
Patterns					
Compare Measurable Attributes					
Classify Objects					
Identify and Describe Shapes					
Spatial Sense					
Strategies and Multiple Solutions (e.g., Logical Thinking)					

Domain/Domain Element	Coverage	Balance & Integration	Depth	Difficulty	Notes
Science and Problem Solving					
Consistency and Change					
Abilities Necessary to Do Scientific Inquiry					
Properties of Matter					
Characteristics of Organisms					
Social Studies					
Map Skills					
Concepts of Time					
People and Events					
Community Workers					
Citizenship					
Identity					
Culture					

Summary and Recommendations Regarding Domains and Domain Elements

Total COVERAGE = _____ **Total BALANCE & INTEGRATION = _____** **Total DEPTH = _____** **Total DIFFICULTY = _____**

Action Tool 3: Pedagogy

Name of Reviewer: _____ Date: _____

Name of Curriculum: _____

Directions: Review the curriculum and determine if the materials provide guidance on and/or adequately address the various facets listed in the chart. Place a ✓ in the appropriate Yes/No column. Finally, record your overall summary and recommendations regarding this component in the appropriate table.

Does the curriculum provide guidance on and/or adequately address the following:	Yes	No	Notes
General			
Detailed instructions for curriculum implementation			
Intentional Teaching			
How to articulate specific goals and learning opportunities as teachers promote children's continued learning and development			
Developmental trajectories are present that can be used by teachers to plan teaching and learning opportunities			
Intentionally planning for teaching interactions that are responsive to children and build on what children are interested in and ready to learn			
Using a continuum of teaching strategies (e.g., adult-guided or child-guided) to ensure children's individual needs are met			
Individualization			
Expanding or focusing the curriculum for all or some children, as needed			
Making accommodations and modifications for individual children to support learning			
Incorporating more intensive intervention strategies or programs into the classroom setting			
Inclusion and Universal Design for Learning			
Curriculum is "context sensitive" and invites active participation of *all* children, including those with unique experiences and learning needs.			
Incorporating multiple means of representation			

Does the curriculum provide guidance on and/or adequately address the following:	Yes	No	Notes
Incorporating multiple means of engagement			
Incorporating multiple means of expression			
Well-Designed Learning Opportunities			
Appropriate and sufficient learning experiences and opportunities to develop skills and knowledge in all learning domains and domain elements			
Learning opportunities that are linked to specific learning goals and objectives			
Creating and implementing engaging learning opportunities			
Including technology in developmentally appropriate ways			
Clear guidelines for planning environments and selecting materials			
Suggestions for teacher-child dialogue that fosters higher-order thinking and extends and enriches the learning context			
Facilitate children's construction of knowledge through interactions with materials (e.g., hands-on activities), each other, and adults			
Intellectually challenging, personally meaningful, and authentic curriculum			
Curriculum capitalizes on children's powerful drive to learn and be competent			
Supports positive relationships			

Summary and Recommendations Regarding Pedagogy

Total YES = _____ Total NO = _____

Action Tool 4: Assessment

Name of Reviewer: _____ Date: _____

Name of Curriculum: _____

Directions: Review the curriculum and determine if the materials provide guidance on and/or adequately address the various facets listed in the chart. Place a ✓ in the appropriate Yes/No column. Finally, record your overall summary and recommendations regarding this component in the appropriate table.

Does the curriculum provide guidance on and/or adequately address the following:	**Yes**	**No**	**Notes**
Content and Contextual Sensitivity			
Integrated assessment methods for all domains and domain elements			
Assessment system is directly linked to the curriculum learning goals			
Developmentally appropriate assessment content and methods			
Assessment content and methods used are culturally and linguistically reflective of the children's backgrounds (e.g., incorporate culturally based experiences, including family values and languages, appropriate for the socioeconomic status of children, etc.)			
Assessment Administration and Data Use			
Use of multiple methods of assessment, both formal and informal to measure curriculum goals and objectives (e.g., direct observations of children's play and interactions, examining student work samples, asking children questions)			
Assessment methods that allow for assessing children's independent and assisted performance			
Use of multiple sources of evidence to serve as assessment data (e.g., child care providers, family, community service providers, etc.)			
Strategies or procedures for accommodating and/or modifying the assessment to meet learner needs			

Does the curriculum provide guidance on and/or adequately address the following:	Yes	No	Notes
Reviewing children's learning on a regular basis and documenting changes in individual children over time			
Authentic assessment that engages children in meaningful tasks within a meaningful context			
Observing, documenting, and analyzing assessment results and summarizing them as a whole			
Using assessment results to adjust the curriculum, teaching strategies, or learning environment to guide future instruction			
Creating active family engagement in the assessment process			
Quality and Ease of Use			
Assessment instruments are in compliance with professional criteria for quality (e.g., valid and reliable, etc.)			
Recently updated and nationally representative norms and standardized scores are available (If standardized, norm-referenced assessments are included)			
Feasibility of implementation (e.g., appropriate length, appropriate complexity of assessment items, etc.)			
All the assessment methods included in the curriculum appear to be part of a coherent, comprehensive assessment system			
Assessment results can be used to meet other assessment requirements of the program, state, or federal entities			

Summary and Recommendations Regarding Assessment

Total YES = _____ Total NO = _____

Action Tool 5: Evidence of Effectiveness

Name of Reviewer: _____ Date: _____

Name of Curriculum: _____

Directions: Find and review empirical research associated with the curriculum and answer the questions below. Place a ✓ in the appropriate Yes/No column. When applicable, be sure to record the study title, author, year, and source for each study reviewed. You may also consider action research and personal experience, although empirical research support is necessary and should play the primary role in informing your ultimate decision. Use the "notes" column to record study information related to each question. Finally, record your overall summary and recommendations regarding this component in the appropriate table.

Authors:			**Date:**
Study Title:			
Journal:	**Volume:**	**Issue:**	**Page #s:**

Does the available evidence meet the following criteria?	**Yes**	**No**	**Notes**
Empirical Research			
Was the research conducted by someone other than the curriculum author(s)?			
Was the research published in a peer reviewed journal/resource?			
Is evidence of the program's effectiveness also presented in the What Works Clearinghouse?			
Is the sample and setting comparable to that of your program (e.g., age, ethnicity, linguistic background, socioeconomic status, special needs, class size, teacher background and training, locale, etc.)?			
Did the study include multiple groups of children, some of whom were exposed to the curriculum and some who weren't?			
Did the study find differences in child outcomes and other child variables for children exposed to the curriculum versus those who were not?			
Where any statistically significant differences between groups also practically/educationally significant (as suggested by the effect size)?			
Are longitudinal data available?			

Does the available evidence meet the following criteria?	Yes	No	Notes
If available, do longitudinal data support positive long-term effects of the curriculum?			
Did the study include data on teachers' implementation of the curriculum?			
Have the results been replicated by other researchers?			
Action Research and Personal Experience			
Have teachers in similar programs conducted action research in their classrooms demonstrating positive child outcomes associated with the curriculum?			
Have you spoken with similar (perhaps local) programs that have successfully used the curriculum under review?			
Do other similar programs recommend the curriculum?			

Summary and Recommendations Regarding Evidence of Effectiveness
Total YES = _____ Total NO = _____

Action Tool 6: Cultural, Socioeconomic, and Ethnic Sensitivity

Name of Reviewer: _____ Date: _____

Name of Curriculum: _____

Directions: Review the curriculum and determine if the materials provide guidance on and/or adequately address the various facets listed in the chart. Place a ✓ in the appropriate Yes/No column. Finally, record your overall summary and recommendations regarding this component in the appropriate table.

Does the curriculum provide guidance on and/or adequately address the following:	Yes	No	Notes
Culturally-Relevant Tools and Materials			
Culturally-relevant tools and materials to be utilized in learning opportunities			
Inclusion of cultural perspectives found in the families, the program, and the community			
Building on prior cultural learning and experiences			
Promoting cultural awareness and recognizing the unique strengths of various cultural groups			
Materials and learning experiences that avoid stereotyping people based on race, ethnicity, gender, religion, culture, age, or sexual orientation			
Materials that are sensitive to the diverse backgrounds and needs of children from a variety of income, or socioeconomic, environments			
Linguistically-Relevant Tools and Materials			
Linguistically-relevant tools and materials to be utilized in learning opportunities and build a solid base for later learning for ELLs and DLLs			

Summary and Recommendations Regarding Cultural, Socioeconomic, and Ethnic Sensitivity

Total YES = _____ Total NO = _____

Action Tool 7: Professional Learning

Name of Reviewer: _____ Date: _____

Name of Curriculum: _____

Directions: Review the promotional materials that accompany the curriculum and/or the information that is located on the publisher's website to determine the type, delivery method, and frequency of Professional Learning opportunities that will be available to teachers, program administrators/coaches, paraprofessionals, and other staff in order to implement and maintain the curriculum. Look for information that addresses the following items and place your findings in the chart below. Finally, record your overall summary and recommendations regarding this component in the appropriate table.

Type of Professional Learning Opportunity	PD Available?		Delivery Method	Frequency	Audience	Notes
	Yes	No				
Types of Training and Support Available						
Onsite initial						
First year site visits						
Linking training at other interested or experienced sites						
Ongoing implementation visits or other follow-up support						
Refresher courses						
Coaching						
Conferences						
Online training opportunities, such as webinars						

Type of Professional Learning Opportunity	PD Available?		Delivery Method	Frequency	Audience	Notes
	Yes	No				
Specialized Trainings and Support						
Specialized training for coaches						
Specialized training for special education						
Specialized training for Title I						
There are Professional Development (PD)opportunities for everyone in contact with children (e.g., teachers, assistant teachers, directors, instructional coaches, etc.)						
There are resources associated with the curriculum available to support Book Studies and other individual learning by teachers						
Additional Points to Consider						
Trainers are required to have a background in the methods or curriculum being reviewed						
The PD opportunities available are philosophically compatible with other ongoing PD within the program (including trainings for other curricula if multiple are being used)						
Checklists or other tools are available to formally or informally assess teachers' implementation of the curriculum with fidelity.						
There is empirical research demonstrating the effectiveness of the PD training/plan.						

Summary and Recommendations Regarding Professional Learning

Total YES = _____ Total NO = _____

Action Tool 8: Family and Community Engagement

Name of Reviewer: _____ Date: _____

Name of Curriculum: _____

Directions: Review the curriculum and determine if the materials provide guidance on and/or adequately address the various facets listed in the chart. Place a ✓ in the appropriate Yes/No column. Finally, record your overall summary and recommendations regarding this component in the appropriate table.

Does the curriculum provide guidance on and/or adequately address the following:	**Yes**	**No**	**Notes**
Sharing information about the curriculum with families and the community			
Using information about children's families and communities to enhance or adjust the curriculum			
Helping families extend the curriculum at home to support basic skills using common household items			
Helping families enrich the curriculum at home to support further learning of additional skills using common household items			
Informing families of student progress			
Parenting: Providing professional workshops, training opportunities, and other ideas to assist families in parenting and assisting their child (trainings should also inclusive of other community members)			
Communicating: Communicating with families about their child, including conferences, report cards and academic progress, and other verbal communication			
Learning at Home: Opportunities to support learning at home, including extending/enriching the curriculum at home to support basic skills and further learning			
Volunteering: Providing opportunities and information about supporting school events, involvement with classroom activities, and other community opportunities for students and families			
Decision Making: Including parents in decision-making processes through attendance at school meetings, participating in addressing concerns, and by helping other parents			

Does the curriculum provide guidance on and/or adequately address the following:	Yes	No	Notes
Collaborating with Community: Using community resources for school/family assistance, involvement of community groups in schools, and community/school mentoring programs			
Working with and provide information to families and communities to support home-to-preschool and preschool-to-kindergarten transitions			
Working with other school staff and personnel across classrooms and grade levels to ensure smooth classroom and school transitions			

Summary and Recommendations Regarding Family and Community Engagement
Total YES = _____ Total NO = _____

Action Tool 9: Affordability and Feasibility

Name of Reviewer: _____ Date: _____

Name of Curriculum: _____

Directions: Review the curriculum, promotional materials that accompany the curriculum, and/or the information that is located on the publisher's website to determine the affordability and feasibility of the curriculum. Place your findings in the chart below. Finally, record your overall summary and recommendations regarding this component in the appropriate table.

Note: Consider whether the budget can support the cost for Affordability items only; consider more general Yes/No responses to Feasibility items.

Points to consider:	**Cost**	**Can the budget support the costs?**		**Notes**
		Yes	**No**	
Affordability				
What is the initial cost of the curriculum materials?				
Are there related or optional materials available that should be purchased to support the curriculum?				
Is there a cost for sustaining the curriculum (e.g., replacing consumable materials)?				
Does implementation of the curriculum require initial training for staff?				
Does the ongoing implementation of the curriculum require periodic site visits/ongoing assistance by external consultants?				
Feasibility				
Does the curriculum require a certain child-teacher ratio? If so, is that ratio a reasonable expectation for the current program?				
Can the curriculum be reasonably implemented given the experience, skills, and educational background of the current staff?				
Points to consider:				**Notes**

	Yes	No	
Is there enough time in the current school day/week structure to implement the curriculum with fidelity?			
Can the current program setting support any facility, space (indoor and outdoor), or equipment requirements?			

Summary and Recommendations Regarding Affordability and Feasibility

Total YES = _____ Total NO = _____

Action Tool 10: Review Synthesis

Names of Reviewers: _____ Date: _____

Name of Curriculum: _____

Directions: Discuss the findings from each reviewer and come to consensus on whether or not that element of analysis is adequately addressed by the curriculum. Place a ✓ in the appropriate column (Yes/No). Record the group's rationale for each decision. Additionally, for those elements in the *No* column, discuss ways in which the identified deficits might be overcome if the decision is made to adopt this curriculum. Finally, record your overall summary and recommendations regarding this curriculum in the appropriate table.

Critical Components	**Adequately Addressed?**		**Rationale & Potential Solutions for Deficits**
	Yes	**No**	
Alignment with Program Philosophy, Mission, and Goals			
Domains and Domain Elements			
Pedagogy			
Assessment			
Evidence of Effectiveness			
Cultural, Socioeconomic, and Ethnic Sensitivity			
Professional Learning			
Family and Community Engagement			
Affordability and Feasibility			
Overall, could the curriculum be successfully implemented in the program?			

NORTH DAKOTA PRE-KINDERGARTEN CONTENT STANDARDS

September, 2013

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Dear Colleagues:

I'd like to introduce you to North Dakota's first ever Pre-Kindergarten Content Standards. Work on this ground-breaking document united North Dakota's early learning stakeholders in an endeavor that will benefit our state's children for many years to come.

North Dakota children's interests are first and foremost in every program and service provided by the North Dakota Department of Public Instruction (ND DPI). Their futures begin with early childhood learning—a vital step toward helping to ensure every graduate of our state's public education system is college and career ready. What children learn in their early years provides them with the solid foundation they need to be successful throughout their educational careers. Standards help guide curriculum and aid educators in choosing appropriate lessons and materials. Even so, it is essential to remember that "a child's work is play." How lessons are delivered is equally as important as their content. As the National Association for the Education of Young Children states, "A teacher's moment-by-moment actions and interactions with children are the most powerful determinant of learning outcomes and development." From the very beginning, through every moment of every day, preparing our children for success in their educations and their adult lives must come first.

The North Dakota Century Code mandates that the state superintendent supervise development and alignment of course content standards and assessment of students. To accomplish this, the ND DPI facilitated collaboration with a working group of pre-kindergarten teachers, administrators, consultants, higher education, Head Start and other personnel representing early learning and special education to develop this ground-breaking Pre-Kindergarten Content Standards document. Their work was guided by public comment and multiple levels of review by national and state experts in early childhood education.

I express my gratitude to the many professionals who devoted their knowledge, expertise and time to this project. Developing meaningful and useable content standards is a long and arduous undertaking. Your dedication to providing excellence in education to North Dakota's up-and-coming generations is greatly appreciated.

It is now up to all of us, as a community, to work together to help our children achieve the goals set forth in these standards. Our children are ready and able, as are our educators, to achieve the goals set out in this document. These standards add value not just for today's pre-kindergarteners, but also for future generations of our youngest learners.

Kirsten Baesler, State Superintendent

Contents

Introduction: North Dakota Department of Public Instruction Pre-kindergarten Content Standards

The North Dakota Department of Public Instruction (NDDPI) is pleased to introduce the *North Dakota Pre-kindergarten Content Standards,* hereafter referred to as "Standards." The Standards build upon an earlier document, *Guidelines for Inclusive Preschool Practices: A Developmental Framework*, developed through a collaborative effort by the NDDPI's Special Education and Federal Title Program units. The Standards were guided, in part, by comments received during a statewide public comment and review period and were subjected to multiple levels of review by national and state experts in the early childhood educational field. Additionally, the Standards were evaluated against and aligned with the North Dakota Kindergarten Standards, The Head Start Child Outcomes Framework and the North Dakota Early Learning Guidelines to ensure that the Standards are useful, accessible, and reflect an intentional integration of developmental knowledge and skills appropriate for preschool-aged children. Finally, the Standards are intended to be a living document; review of the Standards may become necessary to assure that the Standards reflect the most current and comprehensive research on early childhood.

The Pre-kindergarten Content Standards: Purposes, Intentions, & Roles

The Standards reflect North Dakota's commitment to provide high quality early childhood educational programs. Such programs foster the development of the solid foundation necessary for lifelong learning and academic success. The purposes and intentions outlined below are consistent with reports from several national groups dedicated to the study and development of state-level early learning standards (NAEYC & NAECS/SDE, 2002; Shore, Bodrova, & Long, 2004).

Purposes:

1. To provide a base of quality expectations using common language and concepts that may be easily implemented in new programs or integrated into existing programs for children ages 4-5 years old.
2. To support educators and families alike in establishing and reinforcing developmentally-appropriate teaching practices that emphasize a balance of play and structure in order to prepare students for the expectations of kindergarten.
3. To serve as a resource for policy makers on the learning and development of pre-kindergarten aged children, in order to ensure well-informed decision making on issues that may have an impact on this population.

Intentions:

1. Provide a common set of expectations for children's learning and development across various types of preschool settings;
2. Provide a continuum of what children should know and be able to do from pre-kindergarten to kindergarten and beyond;
3. Inform and guide developmental support, instruction, assessment, and intervention;
4. Support appropriate teaching practices and provide a guide for gauging children's progress; and
5. Guide families and caregivers in planning and implementing developmental learning activities.

Roles:

1. **Individual Growth and Development**

   Early learning and development proceed at varying rates. When children engage in challenging play and learning experiences, they are more likely to advance. Additionally, when children develop and maintain secure and positive relationships with teachers or caregivers, learning experiences are further enhanced. The Standards are intended to aid early learning professionals in the enrichment of programs that foster challenging play and learning experiences. Through teacher-child interactions and observation of a child's interaction with peers during play and learning, teachers have the ability to recognize the unique set of strengths a child possesses, as well as areas where he or she may require additional support. Children with disabilities may require more individualized instruction in order to demonstrate progress within the Standard's domains. Furthermore, adaptive or assistive technology may be necessary in order for all children to fully participate in high quality early learning experiences.

2. **Family Engagement**

   The Standards are intended to be a bridge between early child care and education professionals and families. Parent and family engagement within the pre-kindergarten setting aides early childhood professionals in identifying each child's unique circumstances, builds further trust with the family, and encourages continued learning at home. The National Association for the Education of Young Children (NAEYC) recommends that programs implement a comprehensive program-level system that involves the family within the alignment of standards, assessment, and curriculum. Programs are encouraged to engage in two-way conversations with families in order to encourage familial participation in decision making and goal setting for their child.

3. **Curriculum Decisions**

   The National Association for the Education of Young Children and the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) position statement recommends that early learning programs should "Implement curriculum that is thoughtfully planned,

challenging, engaging, developmentally appropriate, culturally and linguistically responsive, comprehensive, and likely to promote positive outcomes for all young children." The Standards will serve as a guide for choosing an effective curriculum where children are actively engaged; the goals are obtainable and benefit all children, and build on prior experiences. Instructional teams should determine to what extent the Standards align to the curriculum's content and whether the curriculum is evidence-based to ensure a comprehensive, high quality program.

4. **Assessment Decisions**

The Standards serve as a valuable tool for early childhood professionals in the collection and analysis of data for the purposes of assessing child progress and development and identifying areas of need which may require additional interventions. The National Association for the Education of Young Children and the NAECS/SDE position statement recommends ethical, appropriate, valid, and reliable assessments as a key component of all early childhood programs. Programs utilizing assessments should carefully choose instruments that are reliable and valid and developmentally, linguistically, and culturally appropriate for the children served. Regardless of the assessment preference of an early childhood program, the assessment should be aligned to the Standards to ensure maximum understanding of a child's progress across all areas of child development and early learning.

Key Implementation and Design Considerations

An Integrated Model of Play

Learning in early childhood occurs through play. While play is the focal point in the *Approaches to Play and Learning* domain, it is ultimately the underlying foundation of the Standards. Offering a variety of opportunities for play in a structured pre-kindergarten environment fosters the probability of valuable experiences occurring, through which children learn about themselves, others, and their environment. Placing an emphasis on play does not detract from academic learning; rather, this emphasis on play facilitates learning during early childhood. Play does not compete with the foundational skills addressed in the academic standards. Through mature make-believe play, standards can be addressed, preparing young students for the academic rigors of kindergarten. The most recent position statement on *Developmentally Appropriate Practice in Early Childhood Programs Serving Children Birth through 8* (NAEYC, 2009) describes the foundational and long-term benefits of play, including the development of self-regulation skills, language, and cognitive, and social competence. Therefore, integrating play *into* the Standards offers an avenue for each student to demonstrate his or her capacity to meet the Standard's expectations.

Programming and Instructional Time

Each pre-kindergarten program has carefully designed the hours of programming to best meet the needs of the population it serves. Therefore, the time constraints each program operates within vary and will dictate the manner in which a program chooses to implement the Standards. While the Standards define specific expectations, each domain should not be viewed in isolation; rather, several domains can and should be addressed through a rich variety of pre-planned structured and unstructured play opportunities.

Domain Cross-Referencing Connections

Rather than adopting the isolated content standards design of the K-12 standards, the Standards are designed to incorporate all subject matters into one cohesive document. Because of this unique organizational structure, it is common for a domain to cross-reference other domains. To promote greater clarity and practical use of the standards, cross-references are kept at a minimum; however, the document does contain specific instances where it is appropriate to navigate throughout the document utilizing cross-reference connections. For example, *Physical Development 5.2 Working With Others* is also included in the domain *Social Emotional*.

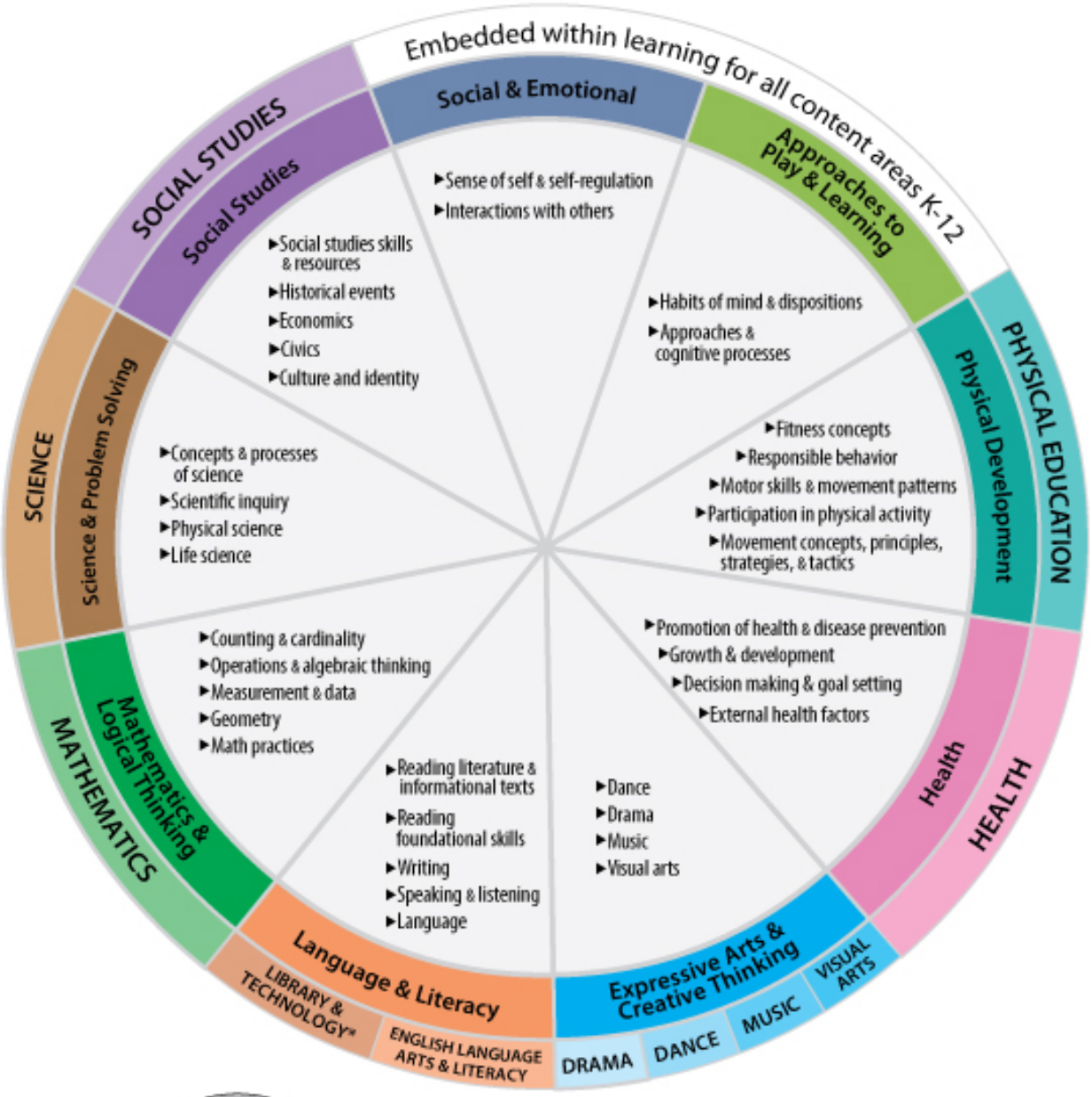
Technology and Interactive Media

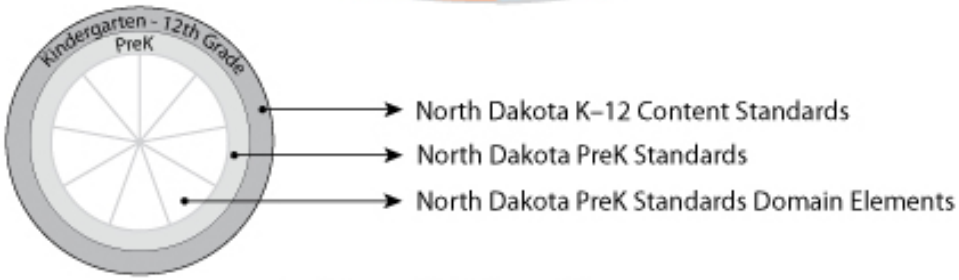
Rather than creating a separate domain addressing a child's proficiency in the use of technology, technology and media components are intentionally embedded throughout the Standards. The National Association for the Education of Young Children position statement, *Technology and Interactive Media as Tools in Early Childhood Programs Serving Children from Birth through Age 8,* supports the integration of technology and interactive media, stating that the integration of technology and media into early childhood education should be . . . "built upon solid developmental foundations" so that "educators are positioned to improve program quality by intentionally leveraging the potential of technology and media for the benefit of every child" (NAEYC and Fred Rogers Center for Early Learning and Children's Media at Saint Vincent College, 2012). Essentially, technology should be selected and integrated based on the needs and targeted learning objectives of local programs, as well as the needs of each child.

"Developmentally appropriate practices derive from deep knowledge of child development principles and of the program's children in particular, as well as the context within which each of them is living. The younger the child, the more necessary it is for practitioners to acquire this particular knowledge through relationships with children's families."(NAEYC, 2009 Developmentally Appropriate Practices Position Statement)

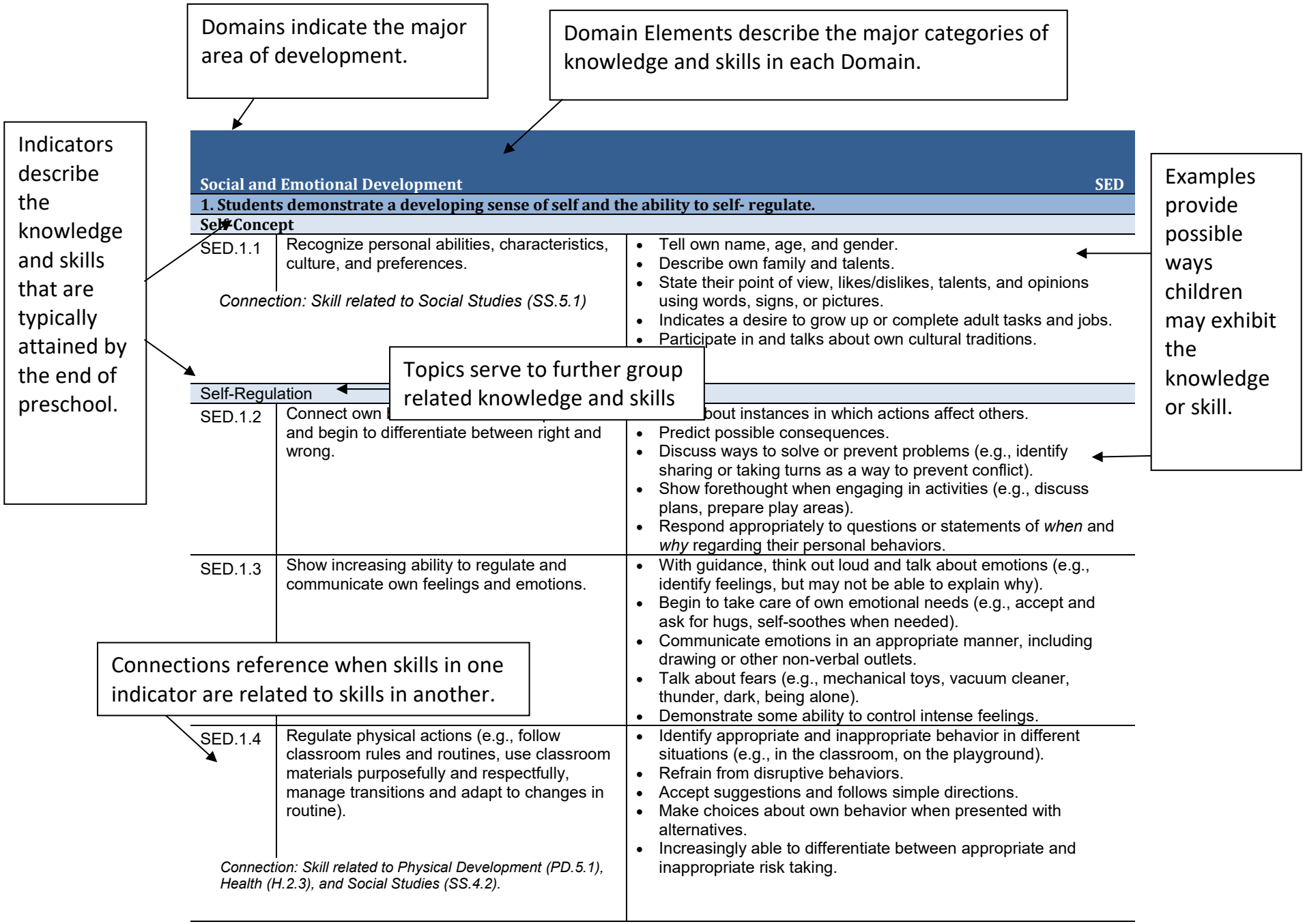
North Dakota Pre-Kindergarten Content Standards

This graphic illustrates the essential domains of learning within the North Dakota Pre-Kindergarten Content Standards. It represents the progression of these domains across ages, rather than the relative importance of each domain within any one age group. The complex connections within and among domains are more fully explored throughout the standards.





*Technology embedded across all PreK Domains.



Social and Emotional Development		SED
1. Students demonstrate a developing sense of self and the ability to self- regulate.		
Self-Concept		
SED.1.1	Recognize personal abilities, characteristics, culture, and preferences. *Connection: Skill related to Social Studies (SS.5.1)*	• Tell own name, age, and gender. • Describe own family and talents. • State their point of view, likes/dislikes, talents, and opinions using words, signs, or pictures. • Indicates a desire to grow up or complete adult tasks and jobs. • Participate in and talks about own cultural traditions.
Self-Regulation		
SED.1.2	Connect own [illegible] and begin to differentiate between right and wrong.	[illegible]bout instances in which actions affect others. • Predict possible consequences. • Discuss ways to solve or prevent problems (e.g., identify sharing or taking turns as a way to prevent conflict). • Show forethought when engaging in activities (e.g., discuss plans, prepare play areas). • Respond appropriately to questions or statements of *when* and *why* regarding their personal behaviors.
SED.1.3	Show increasing ability to regulate and communicate own feelings and emotions.	• With guidance, think out loud and talk about emotions (e.g., identify feelings, but may not be able to explain why). • Begin to take care of own emotional needs (e.g., accept and ask for hugs, self-soothes when needed). • Communicate emotions in an appropriate manner, including drawing or other non-verbal outlets. • Talk about fears (e.g., mechanical toys, vacuum cleaner, thunder, dark, being alone). • Demonstrate some ability to control intense feelings.
SED.1.4	Regulate physical actions (e.g., follow classroom rules and routines, use classroom materials purposefully and respectfully, manage transitions and adapt to changes in routine). *Connection: Skill related to Physical Development (PD.5.1), Health (H.2.3), and Social Studies (SS.4.2).*	• Identify appropriate and inappropriate behavior in different situations (e.g., in the classroom, on the playground). • Refrain from disruptive behaviors. • Accept suggestions and follows simple directions. • Make choices about own behavior when presented with alternatives. • Increasingly able to differentiate between appropriate and inappropriate risk taking.

Social and Emotional Development SED

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Self-Regulation

SED.1.2	Connect own behavior to its consequences and begin to differentiate between right and wrong.	• Talk about instances in which actions affect others. • Predict possible consequences. • Discuss ways to solve or prevent problems (e.g., identify sharing or taking turns as a way to prevent conflict). • Show forethought when engaging in activities (e.g., discuss plans, prepare play areas). • Respond appropriately to questions or statements of *when* and *why* regarding their personal behaviors.
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Self-Reliance and Resiliency

SED.1.5	Demonstrate self-confidence in own abilities.	• Show emotional security through positive statements about themselves and their abilities. • Experiment with own potential to attempt new challenges and tasks. • Show confidence in their capacity to accomplish tasks and take on new tasks.
SED.1.6	Adapt to new environments with appropriate emotions and behaviors.	• Change tone of voice (e.g., inside/outside voice) and sentence structure to match situation. • With guidance and support, think out loud and talk through a new situation. • Identify ways that a new experience is similar to the past. • Show self-confidence in adapting to and coping with change.
SED.1.7	Show self-direction, independence, and initiative.	• Invent new activities or games or modifications to games. • Independently follow familiar routines. • Initiate appropriate tasks without being reminded. • Make activity choices without teacher's help.

2. Students demonstrate a developing ability to interact with others.

Social Competence

SED.2.1	Use words, in English and/or home language, and non-verbal communication to communicate needs, ideas, experiences, and emotions.	• Use words and/or non-verbal cues, gestures, actions, and expressions to communicate thoughts, feelings, or personal health needs. • Express a range of emotions.

Social and Emotional Development — SED

SED.2.2	Communicate with peer or adult when encountering challenges.	• Ask adult for help if something is out of reach. • Negotiate with peer before calling for teacher.
SED.2.3	Use acceptable and constructive methods to resolve conflicts and disagreements with peers.	• Ask for help from other people when solving social problems. • Talk about ways to solve or prevent problems and discuss situations that illustrate that actions have consequences. • Wait for turn for adult attention. • Demonstrate negotiation and conflict resolution strategies described in stories they have heard.
Interactions with Peers and Adults		
SED.2.4	Begin to develop peer friendships through group activities, tasks, and play.	• May enjoy playing alone, but near other children. • May have a best friend. • Indicate respect for the feelings, opinions, and perspectives of others.
SED.2.5	Develop positive relationships with adults.	• Attach appropriately to nurturing adults. • Show signs of trusting appropriately (e.g., does not hug strangers). • Show respect and reciprocate feelings of trust with adults.
SED.2.6	With guidance and support, recognize and respect the feelings, opinions, and needs of others, and offer help.	• Show care for others and demonstrate a desire to be helpful (e.g., comfort a friend who is crying). • Gain awareness of the cultural traditions and perspectives of other people. • Show a basic understanding that other people have rights (e.g., stand up for a friend). • Interact with others regardless of differences.
SED.2.7	Work cooperatively with others and exhibit appropriate social behavior (e.g., use names, share, take turns, show respect). *Connection: Skill related to Physical Development (PD.5.2)*	• Show some age-appropriate cooperative play without adult supervision. • Negotiate roles and tasks when working with peers or during group play. • Demonstrate basic concepts of fairness (e.g., everyone gets a piece of fruit). • Read simple social cues (e.g., respond to and make verbal greetings). • Show respect for property and rights of others (e.g., ask permission to use others' possessions, use classroom toys and materials appropriately).

Approaches to Play & Learning — APL

1. Students demonstrate habits of mind and dispositions important to learning.

Initiative and Curiosity		
APL.1.1	Show interest and eagerness in discovering and learning new things.	• Ask questions about persons and things. • Choose to participate in a variety of familiar and new experiences. • Ask definitions of words. • Express wonder about the natural world.
Engagement and Persistence		
APL.1.2	Sustain attention, interest, and focus on activities and engagement with experiences.	• Complete favorite tasks and activities with interest. • Attend while being read to for short periods of time. • Remain engaged in an activity for increasingly long periods of time.
APL.1.3	Persist with goals, plans, and a variety of learning experiences.	• Increasingly able to make and follow through on plans. • With encouragement, continue the task (e.g., completing a puzzle, building a tower or structure, dressing self) at hand through frustration or challenges, such as when previous attempts have not been successful.
APL.1.4	Filter out and ignore most distractions and interruptions.	• Participate in crafts or other activities with minimal distractions. • Resist distractions, maintain attention, and continue the task at hand.
APL.1.5	Know how to seek and/or accept help or information from others when encountering a challenge or solving a problem.	• Ask for help after trying to solve a social and/or cognitive problem on his or her own. • Seek information for further understanding.

Approaches to Play & Learning		APL
Flexibility and Risk Taking		
APL.1.6	Approach tasks with flexibility.	• With prompting and support, able to generate ideas, suggestions, and possible solutions for questions, tasks, and challenges. • Change plans if a better idea is thought of or proposed.
APL.1.7	With some support and guidance, differentiate between appropriate and inappropriate risk taking.	• Identify dangerous activities. • Choose to participate in an increasing variety of experiences.
2. Students engage in learning through a variety of approaches and cognitive processes.		
Imagination, Invention, and Creativity		
APL.2.1	Approach tasks with imagination and inventiveness.	• Experiment through repeated exposure to the same or similar materials and activities. • Use a variety of strategies to solve problems (e.g., compare and contrast possible solutions). • Work out problems mentally rather than through trial and error (e.g., use a strategy such as matching colors, to identify the correct puzzle piece without trying them first).
APL.2.2	Explore and experiment with a wide variety of materials and activities.	• Use and combine materials in novel ways to explore, play, and solve problems. • Actively explore (e.g., stack, squeeze, roll, fill and empty) a variety of materials (e.g., blocks, play dough, boxes). • Use a computer software program to complete a learning activity. • Use a CD player, or other media platform to listen to songs or stories.
APL.2.3	Engage in cooperative activities.	• Refer more frequently to the activities of others. • Join in cooperative games with others and invites others to play.
Pretend play		
APL.2.4	Substitutes one object for another in pretend play or pretends with objects that may or may not be present	• Use a block to stand for a hammer during play • Uses gestures or hands to stand for props, such as a hand for talking on a telephone
APL.2.5	Uses imagination to create a variety of ideas, role plays, and fantasy situations	• Take on various roles with real or imaginary objects, including household objects and technological tools. • Engage in planning about what the play scenario will be, and how the scenario will unfold.
APL 2.6	Engages in elaborate sustained imagined play and can distinguish between real life and fantasy	• Engage in play scenarios with sequenced actions • Identify things that are real and things that are make-believe.
Analysis and Evaluation		
APL.2.7	Make simple connections based on prior knowledge and experiences.	• Make simple predictions based upon prior experience and learning (e.g., round objects roll downhill). • Apply prior experience and learning to new situations (e.g., "If I want crispy cereal, I need to eat it right after I add milk.) • Compare objects. • With prompting and support, understand simple logical problems (e.g., working with patterns, naming a described object when given clues). • Incorporate experiences with technology into play (e.g., building structures on the computer, then also building them in the block center).

Physical Development PD

1. Students demonstrate motor skills and movement patterns needed to perform a variety of physical activities.

Movement Skills		
PD.1.1	Combine large motor movements (e.g., pulling, throwing, catching, kicking, rolling, riding) with the use of equipment (e.g., balls, bean bags, playground equipment).	• Play and climb on jungle gyms, slides, and swings. • Pedal and steer a small tricycle or bike. • Run and maneuver through an obstacle course. • Catches, throws, and kicks a large ball.
PD.1.2	Engage in a variety of activities that require fine motor skills (e.g., art projects, manipulative toys, dressing).	• Engage in a variety of art projects (e.g., drawing, painting, printing, cutting, gluing, manipulating play dough). • Play with a variety of manipulative toys (e.g., puzzles, blocks, wooden hammers, Lego's®). • Practice fastening seatbelt in automobile. • Gain independence in dressing and undressing (e.g., uses zippers, buttons, and snaps; puts on boots and mittens; attempts tying shoes).
Control in Movement		
PD.1.3	Develop large body muscle control and coordination by engaging in a variety of physical activities (e.g., jumping, skipping, running, hopping, galloping, climbing, crawling, rolling).	• Participate in movement games such as "Red Light, Green Light," "Ring Around the Rosie," and "Freeze Tag," where children can run and stop or change direction while in motion. • Pretend to be various jumping creatures (e.g., rabbit, kangaroo, frog, grasshopper). • Perform a variety of movement skills both independently and with a partner.
PD.1.4.	Demonstrate a growing sense of balance (e.g., stands on one foot, walks on a balance beam).	• Practice walking upstairs and downstairs alternating feet, with or without holding on to rail. • Balance on different body parts at different levels, becoming "like" a statue while making symmetrical and nonsymmetrical shapes.
PD.1.5	Use eye-hand coordination to complete tasks (e.g., stringing beads, doing puzzles, using clay, tracing, lacing, cutting with scissors, pouring).	• Use scissors to make purposeful cuts. • Demonstrate meal time skills (e.g., unscrewing cap off bottle, using knife to spread and cut, holding glass while pouring milk, eating with utensils).
PD.1.6	Manipulate a variety of objects (e.g., clothing, blocks) and tools (e.g., writing and art tools, utensils).	• Feed self with spoon and small fork. • Practice using writing and art tools (e.g., pencils, crayons, scissors, markers, paint brushes).

2. Students understand and apply movement concepts, principles, strategies, and tactics to learn and perform physical activities.

Movement Concepts		
PD.2.1	Demonstrate awareness of space and directionality in relationship to stationary and moving objects or boundaries (e.g., walls, lines, circles, bases) and respond to spatial directions.	• Avoid bumping into obstacles. • Get a drink from a faucet. • Maneuver through an obstacle course. • Play games such as "Follow the Leader" and "Simon Says" responding to directional and positional words (e.g., up, down, over, under, top, bottom, outside, behind).

3. Students participate in regular physical activity.

Benefit of Physical Activity		
PD.3.1 *Connection: Skill related to Health (H.2.1)*	Identify the benefits and effects of exercise (e.g., positive feelings, increased stamina).	• Tell why it is important to get a lot of physical activity. • List some physical effects of exercise such as getting tired, red faced, and thirsty.
Participates in Physical Activity		
PD.3.2	Participate in structured (e.g., games) and unstructured (e.g., playground) daily physical activities.	• Participate in activities that increase the heart rate and require stretching the muscles. • Share space and equipment with other children during physical activities • Cooperate in simple games (e.g., Follow the Leader; Tag).

Physical Development PD

4. Students understand and apply fitness concepts to achieve and maintain a health-enhancing level of physical fitness.

Physiological Response to Physical Activity

PD.4.1	Exhibit strength, flexibility, and stamina/ endurance when participating in exercises for large motor skills.	• Engage in repetitive practice of gross motor skills. • Perform a sequence of large motor skills. • Hang with both arms, lifting feet off the ground (e.g. holding onto a trapeze bar or monkey swing). • Sustain upright posture when sitting, kneeling, and standing.
PD.4.2	Exhibit control, strength, and dexterity in hand muscles.	• Use an appropriate grasp on scissors and writing utensils. • Use markers, crayons, pencils, and paint brushes. • Use a hand hole punch on materials of increasing thickness. • Engage in repetitive practice of fine motor skills.

5. Students exhibit responsible personal and social behavior in physical activity settings.

Procedures and Personal Responsibility

PD.5.1	Follow simple safety rules under teacher instruction and supervision during structured physical activities. *Connection: Skill related to Social and Emotional Development (SED.1.4), Health (H.2.3), and Social Studies (SS.4.2).*	• Respond appropriately to instructions from adults when playing games. • Follow rules for physical games and activities. • Use safe procedures when using physical education and play equipment.

Working With Others

PD.5.2	Work cooperatively with others in play and group physical activities. *Connection: Skill related to Social and Emotional Development (SED.2.7)*	• Take turns during physical activities. • Use names when addressing peers during physical activities and active play. • Identify roles for self and others during physical activities and games.

Health H

1. Students understand the fundamental concepts of growth and development.

Human Growth and Development

H.1.1	Recognize that people, including self, are growing and developing.	• Talk about how rest and exercise support healthy development. • Describe and discuss changes that occur in people, including themselves, as they grow from infancy to early childhood (e.g., height, weight, mobility). • Comment on own growth or some aspect of health (e.g., "When I have snack, I get energy; after jumping jacks, I need to rest.'")

Body Systems

H.1.2	Identify the functions of basic body parts and systems (e.g., mouth is used to eat and talk).	• Draw a person with multiple body parts. • Point to body parts such as shoulder, heel, hand, neck, arms, elbow, knee, chin, and legs.

2. Students understand concepts related to the promotion of health and the prevention of disease.

Personal Health

H.2.1	Develop awareness of behaviors that promote health and well-being (e.g., eating nutritious foods, sufficient rest, avoidance of unhealthy substances). *Connection: Skill related to Physical Development (PD.3.1)*	• Participate in health education for families and children. • With assistance from an adult, decide on a personal health goal such as eating less candy and more vegetables or exercising more. • Tell why it is important to eat fruits and vegetable or use medicine safely. • Communicate own health needs with words or gestures.

Disease and Illness

Health H

H.2.2	Perform basic self-help tasks that promote good hygiene (e.g., hand and face washing and drying, eating, dressing, brushing teeth, toileting).	• Use the toilet, with help as needed. • Follow routines for personal care tasks. • Explain the purpose for good hygiene, such as washing body and cleaning teeth. • Demonstrate ways to prevent the spread of germs (e.g., coughing into clothing, blowing nose).
Safety and Injury Prevention		
H.2.3 *Connection: Skill related to Social and Emotional Development (SED.1.4), Physical Development (PD.5.1), and Social Studies (SS.4.2).*	Know health and safety rules (e.g., rules for traffic and pedestrian safety, proper use of classroom materials, behavior in the classroom and on the playground).	• Name ways to reduce injuries on the playground. • Knows why it is important to wear a seat belt. • Identify ways to be safe around traffic (e.g., using the crosswalk, looking both ways before crossing a street). • Discuss basic boundaries regarding personal safety around strangers.
H.2.4	Follow rules in emergency situations and recognize potentially dangerous objects and substances.	• Practice the procedure for fire and tornado drills and "lock downs." • Talk about incidents that require a call to 911. • Name items that require precaution (e.g., medicine, poison, broken glass, matches, weapons).
3. Students understand the effect of external factors on the health of individuals, families, communities, and the environment.		
External Influences on Health		
H.3.1	Knows ways to keep their environment clean and healthy.	• Participate in environmental protection activities (e.g., reduce, reuse, recycle, doesn't litter, pick up litter, conserves). • Tell why it is important to keep passage ways clear of clutter.
4. Students demonstrate the ability to use decision making and goal setting skills to enhance health.		
Goal Setting		
H.5.1	Exhibit knowledge about foods and nutrition (e.g., foods that are healthy or unhealthy).	• Discuss nutritious meals and snacks and the difference between healthy and unhealthy food. • Create class books, charts, collages, or displays with pictures of healthy/unhealthy foods, or a picture menu of health food choices. • Work with peers to distinguish food on a continuum from most healthy to least healthy.
H.5.2	Make healthy choices (e.g., eats veggies and fruits) and engage in healthy practices (e.g., routines for personal hygiene).	• Help to prepare a variety of healthy snacks and meals, and talk about ingredients. • Differentiate between signs of hunger and fullness and stop eating when full. • Sample a wide variety of nutritious foods. • Demonstrate strategies to prevent the spread of germs (e.g., washing hands) and tell why they are important.

Expressive Arts and Creative Thinking ART

1. Students engage in dance.

Movement Elements

ART.1.1	Coordinate movements in response to beat or rhythm in music.	• March and dance to music. • Move fast or slow in response to music. • Participate in chants, songs, and rhymes that direct movements (e.g., *Head and Shoulders, Knees, and Toes*).

Expressive Arts and Creative Thinking — ART

2. Students engage in drama.

Acting

ART.2.1	Use a variety of materials and play processes in dramatic play and assume different roles or characters.	• Role-play using dress-up clothes, realistic props, and everyday objects that may stand for something else. • Observe and listen in order to imitate (e.g., watch a video on travel and then pretend to be a pilot, mimic language used by characters in a book or movie). • Pretend and dramatize. • Participate in creative movements to express emotions, such as happiness.

3. Students engage with music.

Singing

ART.3.1	Sing to music.	• Vocalize and hum songs. • Remember the words to a familiar song and sing along when it is played.

Instrumental Performance

ART.3.2	Play simple musical instruments.	• Play kazoos, shakers, and drums. • Pretend to play instruments during imaginative play.

Listening

ART.3.3	Listen to music with attention.	• Listen to songs sung by person or played on a radio, CD player, or other form of media. • Listen to songs and music from different cultures.

4. Students engage in visual arts.

Visual Art Media, Techniques, and Processes

ART.4.1	Use a variety of media and techniques to create art, including a variety of two-dimensional and three-dimensional processes.	• Paint, draw, color, and cut paper. • Shape, roll, pull, and pat play dough or clay. • Observe, imitate, and copy patterns.

Subject Matter, Theme, Symbols, and Ideas in Visual Art

ART.4.2	Create art work that depicts objects and events and/or expresses feelings, thoughts, and ideas.	• Describe the content of their drawings. • Respond to field trip or class experience by drawing or coloring related images.

Connections

ART.4.3	Share and discuss own art work with others, including opinions, likes, and dislikes about artistic creations.	• Talk about the color or shapes in their art or the art of others. • Choose artwork for display in the classroom, school, or community or for a personal book, class book or portfolio, and explain why they chose it.

Language and Literacy — LL

1. Students read a variety of literature and informational texts.

Key Ideas and Details

LL.1.1	Recall and retell information from a book with attention to the main events or major ideas.	• Select specific details in a story and repeats them. • Complete a sentence that repeats itself in a familiar story. • Represent stories told or read aloud through various media or during play. • Imitate the language in storybooks (e.g., repetitive language patterns, sound effects, and words from familiar stories).
LL.1.2	Respond to books in a variety of ways (e.g., make predictions, relate to personal experiences).	• Relate own life and prior knowledge to books. • Compare information in a book to information in other books. • Act out scenes from a book.

		• Predict story events or outcomes.
Craft and Structure		
LL.1.3	Know that books and other reading materials have titles, authors, and often, illustrators.	• Talk about the title and author of a book or webpage. • Talk about how the pictures in a book, magazine, or electronic media were made. • With support, listen to age-appropriate online materials, eBooks, or book applications.
Integration of Knowledge and Ideas		
LL.1.4	With prompting and support, compare two or more books on the same topic (e.g., trucks, germs, rainbows) or theme (e.g., sharing, holidays).	• With prompting and support, discuss differences in how the characters, buildings, and other story elements are depicted in the two versions of the same story (e.g., two different versions of *The Three Little Pigs*) or books on the same topic or theme. • If applicable, compare a book written in the home language(s) of children with the same book written in English.
LL.1.5	Understand that illustrations and pictures convey meaning.	• Talk about the pictures in books and how they relate to the story. • Compare the pictures in two books on the same topic or with similar characters.
Range of Reading and Level of Text Complexity		
LL.1.6	Know that reading is valuable and enjoyable.	• Initiate stories and respond to stories told or read aloud. • Show preferences for favorite book. • Pretend to read familiar books in ways that mimic adult reading.
LL.1.7	Participate in group reading activities and listen to a variety of literature (e.g., stories, poetry, drama, rhymes, songs) and informational texts (e.g., books about real people and places, procedures, letters).	• Review and use a variety of informational texts (e.g., directions, recipes, menus, shopping lists, chore charts, invitations, group or center lists, signs) during play and class activities. • Recite or sing familiar rhymes or refrains. • Dramatize stories heard. • If applicable, read books and respond to materials in their home language(s), as well as in English.
2. Students apply basic skills in reading foundations.		
Print Concepts		
LL.2.1	Know that print conveys meaning.	• Recognize examples of print that tell people what to do (e.g., instructions, signs). • Identify print and simple symbols that are used to organize classroom activities (e.g., where to store things, when they will have a turn).
LL.2.2	Understand some basic print conventions and characteristics of books.	• Demonstrate the proper way to handle books (e.g., hold the book upright; turn pages from front to back, one at a time, return to proper place when done).
LL.2.3	Know that letters have names and there are upper and lower case forms.	• Develop familiarity with the forms of alphabet letters. • Identify letters in first and last name. • Sort and manipulate magnetic letters. • Find particular letters in words. • Rapidly name a sequence of random letters.
LL.2.4	Understand that the sounds of language are represented in print by letters and words.	• Tell the basic differences among letters, numbers, and words. • Identify letters as letters and groups of letters as words.

Language and Literacy LL

Phonological Awareness		
LL.2.5	Discriminate between words and syllables in words.	• Identifies and discriminates between words. • Practice clapping to indicate syllable boundary in spoken names and other words. • Identify some individual sounds in words (e.g., initial or ending sound).
LL.2.6	Recognize that spoken words can be separated into separate sounds and that separate sounds can be combined into spoken words.	• Correctly produce phonemes • Verbally identify the beginning sound of name. • Recognize matching (phonemes) and rhyming sounds. • Practice blending by saying whole word when teacher gives separately spoken syllables while writing to dictation.
Phonics and Word Recognition		
LL.2.7	Know that each letter has its own sound(s) and identify some letter sounds.	• Link letters with sounds in play activities. • Identify the letter name that corresponds with the sound pronounced by the teacher. • Identify beginning sound of an object's name when shown the object or a picture.
LL.2.8	Recognize familiar print in the environment (e.g., traffic signs, store logos, own name).	• Verbally identify labels in classroom and home (e.g., cereal, names, calendar). • Recognize print in everyday life, such as numbers, letters, and familiar signs.
3. Students write for a variety of purposes and audiences.		
Text Types and Purposes		
LL.3.1	Know that writing communicates meaning and information for different purposes.	• Write or trace in a variety of forms (e.g., sign-in sheets, name cards, cards with words and pictures, check marks or rebus symbols on chart, table or list). • Create signs, notes, lists, labels, or other print items to convey meaning, perhaps with nonconventional spellings.
LL.3.2	Use knowledge of letters to write, copy, or trace familiar words (e.g., own name, *mom, dad, no, yes*)	• Make some real letters. • Practice identifying, copying, or writing their first name. • Use known letters and approximations of letters.
Production and Distribution of Writing		
LL.3.3	Use writing tools and materials (e.g., pencils, crayons, chalk, markers, computers, paper)	• Build fine motor skills with finger paint, clay, or rubber stamps. • Draw or pretend to write on a whiteboard or Smartboard. • Pretend to write following natural progression of left to right, top to bottom.
LL.3.4	Use scribbles, shapes, pictures, letters, and dictation to represent thoughts and ideas.	• Draw random symbols and letter-like marks to express thoughts and feelings. • Dictate stories, poems, and personal narratives. • Record the results of an experiment using pictures, rebus symbols, or check marks on a chart. • Write letters or letter-like symbols. • Sequence a story using at least three pictures. • Use nonconventional or estimated spelling when conventional spelling is not known.
Research to Build and Present Knowledge		
LL.3.5	Use a variety of ways to find information and solve problems.	• Ask why, what, when, where, and how questions to accomplish a variety of purposes. • Listen to gather ideas and information. • Identify and use sources for information, including technological tools. • With guidance and support, use technology to find information and solve problems.

Language and Literacy LL

4. Students apply a variety of speaking and listening skills.

Comprehension and Collaboration

LL.4.1	Engage in conversations.	• Communicate information using home language and/or English. • Listen to the ideas of others. • Respond to others' utterance in an appropriate way. • Speak clearly enough to be understood in English and/or home language. • Ask questions, take turns speaking, and make relevant comments. • Use appropriate levels of volume, time, inflection, and expression when engaging in conversations.
LL.4.2	Listen for a variety of purposes (e.g., to understand messages, to gain information, to perform a task, for enjoyment, to learn what happened in a story, to converse with an adult or peer).	• Respond appropriately to questions (e.g., *who, when, where*). • Restate or use words and ideas heard in the language of peers and adults. • Relay simple messages. • Follow commands and instructions.

Presentation of Knowledge and Ideas

LL.4.3	Use non-verbal cues to communicate needs, opinions, ideas, experiences, and emotions.	• Use gestures or actions to covey an experience. • Use devices, signs, pictures, or symbols to communicate ideas and information.

5. Students understand and apply the characteristics of language.

Conventions of Standard English

LL.5.1	Apply basic grammatical structures in spoken language.	• String words together to create simple, complete sentences. • Use "s" to make regular plural nouns. • Use pronouns (e.g., *"I," "me," "you," "mine"*), with increasing accuracy. • Use verbs for the past and present tense, with increasing accuracy.

Knowledge of Language

LL.5.2	Use language for a variety of purposes (e.g., to speak, sing, act out, share information, and recite familiar texts.)	• Recite familiar stories, songs, rhymes, and fingerplays. • Share information in small groups.

Vocabulary Acquisition and Use

LL.5.3	Understand and use new vocabulary and descriptive language to describe feelings, thoughts, experiences, and observations.	• Use English and/or home language to communicate. • Name and sort objects and ideas using general and specific language. • Listen to stories and books with rich language and discuss the meaning of unknown words. • Play vocabulary and word games to extend vocabulary knowledge.

Mathematics and Logical Thinking MTH

1. Students understand counting and cardinality.

Number Names and the Count Sequence

MTH.1.1	Demonstrate an understanding that numbers are always in the same order: 1, 2, 3 (*stable order counting principle*), and that the order when counting objects does not affect the total (*order irrelevance counting principle*).	• Recite numbers in the correct order up to 20. • Demonstrate ability to state the number that comes next up to 9 or 10. • Recognize that one can count a row from left to right or right to left.

MTH.1.2	Use number names with written numerals.	• Recognize and name writing number symbols from zero through 10. • Point to and name written numerals to 10.
MTH.1.3	Relates numbers and quantities to the everyday environment.	• Answer questions about how many objects or people. • Count body parts, stairs, and other things in the environment. • Point to objects while counting.
Count Objects		
MTH.1.4	Demonstrate understanding of one-to-one correspondence between objects and numbers.	• Assign one, and only one, number word to each counted object 1 to 10. • Count objects and materials (e.g., napkins for snack time).
MTH.1.5	Name the number of items in a small set without counting each object (perceptual and conceptual subitizing)	• Identify sets up to 5 (e.g., fingers, blocks, objects) without counting the individual items. • Identify particular patterns of small numbers on die or dominos without counting the individual dots.
Compare Numbers		
MTH.1.6	Demonstrates ability to compare quantities of objects.	• Compare quantities in two sets of objects and describe the comparison with terms, such as *more, less*, or the *same*. • For more than/less than relations with totals ≤ 5, act out or show situation.
2. Students begin to develop an understanding of operations and algebraic thinking.		
Addition as adding to, and subtraction as taking from		
MTH.2.1	Recognize that the number of objects can change when they are added or taken away from a group.	• Find the sum when joining two sets of objects. • Place 10 or fewer objects into groups and recognize the change in quantity.
MTH.2.2	Use objects to solve simple addition (e.g., joining; combining two parts to make a whole) and subtraction (e.g., separating) problems within 5.	• Demonstrate understanding of "add to" problems (i.e., change plus), such as two blocks and two blocks make four blocks. • Demonstrate understanding of "take from" problems (i.e., change minus), such as four apples take away one apple is three apples. • Recognize the solution to put-together and take-apart problems, such as seeing that three apples is the same as two apples and one apple. • Identify the partners for 3 (2 and 1). • Identify the partners for 4 (3 and 1, 2 and 2).
Patterns		
MTH.2.3	Recognize, duplicate, and extend simple patterns of objects, sounds, and movements using manipulatives.	• Use pattern cards to reproduce patterns. • Use manipulatives such as beads, colored cubes, or mosaic tiles to create patterns. • Recognize and create a variety of repeating patterns (e.g., abab, abba) and growing patterns.
3. Students understand measurement and data.		
Compare measurable attributes		
MTH.3.1	Compare objects based on their attributes (e.g., two- or three-dimensional, containers which hold more or less of something).	• Describe objects using size, shape, or color words. • Compare simple shapes based line, sides, corners, size, shape, and color. • Compare the speed, weight, or height of objects.
MTH.3.2	Use standard or nonstandard measurement techniques to measure objects.	• Compare the size of a part of their body (e.g., foot, fist) to the size of a plant, animal, or object. • Compare the length, weight, and amount of content in familiar objects (e.g., the room is as long as 10 children).
Classify objects		
MTH.3.3	Order objects by size and length.	• Stack rings on a peg in order of size. • Sort and order a variety of manipulatives such as objects or toys (e.g., order blocks from smallest to largest).
4. Students begin to develop geometric thinking.		
Identify and describe shapes		
MTH.4.1	Identifies, draws, builds, and names common two- or three- dimensional shapes.	• Find simple shapes (e.g., circle, square, triangle) in the environment.

Mathematics and Logical Thinking — MTH

		• Draw or represent shapes with available materials (e.g., crayons, play dough, popsicle sticks, blocks, computer applications). • Identify shapes in age-appropriate computer games and applications on various media platforms. • Match and sort shapes. • Describe and name shapes using the number of sides or corners (up to the number that students can count).
Spatial Sense		
MTH.4.2	Use vocabulary to describe or indicate directionality, order, or position of objects.	• Use words *above/ below*, *inside* /*outside*, *next to*, *behind*, between, over, under, in front, and beside. • Experiment with directionality using available materials (e.g., *around* the sandbox, *near* the block area, *under* the slide).
MTH.4.3	Demonstrate understanding of spatial sense for solving problems when completing activities.	• Use geometric blocks (parquetry blocks) to fill in a template. • Complete puzzles.
5. Students use math practices.		
Strategies and multiple solutions (e.g., logical thinking)		
MTH.5.1	Uses simple strategies to solve mathematical problems.	• Use one-to-one correspondence to pass out snack items, one for each place. • Divide four cookies into two piles of two to share with friend.
MTH.5.2	Choose which strategies and thinking skills should be used when solving a problem.	• Think out loud and talk through a situation. • Listen to suggestions for solving problems, and decide whether or not the suggestion should be used. • Attempt a variety of strategies to solve problems.

Science and Problem Solving — SCI

1. Students understand the unifying concepts and processes of science.		
Consistency and Change		
SCI.1.1	Know and describe the sequence of daily routines.	• Indicate that snack is before story time, and we go outside after playtime.
SCI.1.2	Recognize and inquire about simple cause and effect relationships (e.g., if you go outside when it is raining you will get wet).	• Discuss examples of cause and effect (e.g., light switch, jumping up is always followed by coming back down). • Ask questions (e.g., how and why cubes form when water is put in freezer).
SCI.1.3	Observe and describe changes (e.g., ice to water) that occur in the world, including changes to living things and natural processes (e.g., weather, day/night cycle).	• Investigate sunlight and shadows and describe the effects of the sun or sunlight as it changes position. • Identify various weather conditions and seasons and how conditions affect what they wear and what they do. • Use appropriate vocabulary to describe nature (e.g., sun, clouds, moon, stars).
2. Students use the process of science inquiry.		
Scientific Inquiry		
SCI.2.1	Use simple tools (e.g., magnifying glass, binoculars, maps, eye droppers, computers) and simple machines (e.g., lever, wheel, axle, pulley, wedge) to investigate their environment.	• Use a magnifying glass to conduct simple investigations (e.g., differences in leaves), with guidance about what to look for or compare. • Use binoculars in small groups of 2 or 3 children on a common goal (e.g., look for a specific object in the yard). • Use simple machines in everyday play (e.g. see-saw, toys with wheels and axle). • Use computer applications to conduct simple investigations.
SCI.2.2	Use their five senses to manipulate materials and learn about the environment.	• Observe, listen to, touch, and smell objects or sounds in nature. • Sort living things by simple characteristics (e.g., behavior, environment, appearance). • Discuss ways that living things change.
SCI.2.3	Gather and record simple information through discussions and drawings about their environment (e.g., weather).	• Observe daily weather pattern and describes if it is warm or cold, raining, snowing, or sunny. • Draw what they learned about materials or the environment (e.g., create a collage, construction, or mural showing which objects floated and which sank).

Science and Problem Solving SCI

		• Draw their own interpretations of materials observed (e.g., the details in a shell or flower).
SCI.2.4	Make predictions and generate ideas based on past experience, observations, and information.	• Complete patterns. • Predict what will happen when an object is dropped, thrown, or rolled. • Talk about where their ideas originate.
3. Students understand the basic concepts and principles of physical science		
Properties of Matter		
SCI.3.1	Use words to identify, describe, and compare objects based on physical characteristics.	• Collect a variety of objects in nature, observe them carefully, and describe differences in shape, color, texture, and size.
SCI.3.2	Observe and describe the physical properties of materials (e.g., liquids or solids found in the everyday environment).	• Talk about the differences between liquids and solids, including that liquids take the shape of their container. • Describe the properties of water in its natural state as found in the daily environment (e.g., puddles, snow).
Students understand the basic concepts and principles of life science		
Characteristics of Organisms		
SCI.4.1	Develop awareness of the needs of living things.	• Observe and describe how to care for classroom pets or plants. • Identify the things that plants and animals need to survive (e.g., food, water, air, and sun). • Identify differences between living and non-living things.

Social Studies SS

1. Students apply social studies skills and resources.		
Map Skills		
SS.1.1	Identify characteristics of the places where they live, play, and learn.	• Identify basic, common geographic features (e.g., street signs, roads, buildings) found in the local environment. • State geographic information about oneself (e.g., the town in which he or she lives, address, phone number). • Identify natural features of the environment (e.g., rivers, lakes, mountains). • Say that they live in the United States of America and/or North Dakota. • Engage in conversations about characteristics of their local community.
SS.1.2	Understand that maps, visuals, and objects can represent places.	• Represent things in environment with available materials, moving from simple to complex representations (e.g., building a bridge, structure, or road from blocks). • Construct and describe simple maps of their immediate neighborhood (e.g., treasure hunt map). • Use simple pictures or objects to represent terrains (e.g., mountains, rivers).

Social Studies SS

2. Students understand important historical events.

Concepts of Time

SS.2.1	Demonstrate a basic understanding of past, present, and future.	• Use "ed" on verbs to include past tense (e.g., *walked, cooked*). • Respond appropriately to terms related to time (e.g., *before, after, now, soon, later, first/last, yesterday/today/tomorrow, morning/night, in a few minutes*). • List a simple sequence of events. • Anticipate recurring activities.

People and Events

SS.2.2	Demonstrate a basic understanding of how things, people, and places change over time and connect new ideas to past experiences and events.	• Tell others about events that happened in the past (e.g., visiting a relative or special place). • Refer more frequently to objects and events removed in time (e.g., the last time it snowed, prior Christmas celebration). • Relate new experiences to the past (e.g. 5th birthday as compared to their 4th birthday).

3. Students understand economic concepts and the characteristics of various economic systems.

Community Workers

SS.3.1	Know that people perform various kinds of work to earn money to buy things they need.	• Engage in pretend play with money (e.g., buying food, shelter, other goods and services). • Use objects, such as cash registers and other occupational tools, to role play various occupations. • Observe and discuss the various kinds of work people do outside and inside their homes.

4. Students understand the development, functions, and forms of various political institutions and the role of the citizen in government and society.

Citizenship

SS.4.1	Share responsibility for caring for their environment (e.g., cleaning, recycling).	• Expand knowledge of and respect for the environment. • Place common objects in the appropriate rooms of a house. • Talk about the need to protect and be good stewards of natural resources (e.g., water, soil, air, plants, animals). • Discuss why it is important to not disrupt the plants encountered when on a walk.
SS.4.2 *Connection: Skill related to Social and Emotional Development (SED.1.4), Physical Development (PD.5.1), and Health (H.2.3).*	Demonstrate an awareness of rules and routines in the classroom, community, and family life.	• Discuss rules in their own experiences and in stories. • Talk about rules in the community (e.g., cars stop at red lights and stop signs). • Identify and anticipate the consequences of not following the rules. • Create acceptable rules for group activities.
SS.4.3	Function as a member of the classroom community by contributing to the well-being of the group (e.g., taking care of property, respecting the rights of others, and keeping one another safe).	• Put toys and materials away. • Accept suggestions and follow simple directions. • Follow routines independently and complete familiar routines. • Show respect for property and rights of others by asking permission to use others' possessions.
SS.4.4	Begin to understand various group decision-making processes (e.g., voting, consensus, handshake, "boss").	• Demonstrate respect for the ideas, opinions, and thoughts of others, even when different from their own. • Work cooperatively with others in completing a task. • Confidently express individual ideas, opinions, and thoughts. • With guidance and support, develop a value system (e.g., utilize values in making decisions such as fairness).

Social Studies SS

5. Students understand the importance of culture, individual identity, and group identity.

Identity and Culture

SS.5.1 *Connection: Skill related to Social and Emotional Development (SED.1.1)*	Understand relationships and roles within families, homes, and classroom.	• Identify attributes of self (e.g., as a member of a family, gender, full name, age, talents). • Describe what a family is using familiar words. • Identify the roles and responsibilities of various family members or class members. • Share family's rules, daily routines, home language, and traditions, while recognizing that different families practice different traditions.
SS.5.2	Know about communities to which they belong (e.g., roles of community members, ways communities interact).	• Talk about groups of people in their community (e.g., groups who live, play, and work together). • Recognize, describe, and dramatize the roles of individuals in the community. • Discuss the various ways people communicate and travel.
SS.5.3	Demonstrate awareness of differences among families (e.g., ethnicity, routines, language, traditions).	• Enjoy stories, poems about different people. • Talk about similarities and differences in people. • Identify and appreciate own ethnicity and cultural traditions (e.g., know they are of the _____ tribe and value their tribal traditions).
SS.5.4	Identify basic types of media and technology used at home, school, and work.	• Describe uses for various types of media and technology. • Pretend to use technology tools during imaginative play. • Use available age appropriate technology tools, with support and guidance.

References

Massachusetts Department of Education. (2003). *Guidelines for Preschool Learning Experiences*. Malden, MA: Author. Retrieved from http://www.eec.state.ma.us/docs1/research_planning/guidelines4preschool.pdf

Minnesota Department of Education. (2005). *Minnesota early childhood indicators of progress: Minnesota's early learning standards*. Roseville, MN: Author. Retrieved from https://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-4576-ENG

National Association for the Education of Young Children (2009). *Position Statement on Developmentally Appropriate Practice.* Retrieved from http://www.naeyc.org/positionstatements/dap

National Association for the Education of Young Children (2009). *Where we stand on curriculum, assessment, and program evaluation.* Retrieved from http://www.naeyc.org/files/naeyc/file/positions/StandCurrAss.pdf

National Early Literacy Panel. (2008). *Developing Early Literacy: Report of the National Early Literacy Panel, A Scientific Synthesis of Early Literacy Development and Implications for Interventions*. National Center for Family Literacy. Retrieved from http://www.nectac.org/topics/literacy/literacy.asp

National Mathematics Advisory Panel. (2008).*Foundations for Success: The Final Report of the National Mathematics Advisory Panel*, U.S. Department of Education: Washington, D.C.: Author. Retrieved from http://www2.ed.gov/about/bdscomm/list/mathpanel/report/final-report.pdf

North Carolina Department of Public Instruction (n.c.). *Foundations: Early Learning Standards for North Carolina Preschoolers and Strategies for Guiding their Success.* Raleigh, NC: Author. Retrieved from http://www.earlylearning.nc.gov/Foundations/index.asp

North Dakota Department of Human Services. (2010). *North Dakota Early Learning Guidelines: Ages 3 through 5*. Bismarck, ND: Author. Retrieved from http://www.nd.gov/dhs/info/pubs/docs/cfs/nd-early-learning-guidelines-for-ages-3-thru-5.pdf

North Dakota Department of Public Instruction. (2010). *North Dakota Early Childhood Outcomes Process: Age Expectation Developmental Milestones Quick Reference.* Bismarck, ND: Author. Retrieved from http://www.dpi.state.nd.us/speced1/childhood/full_version%20.pdf

North Dakota Department of Public Instruction. (2011). *North Dakota English Language Arts and Literacy Content Standards*. Bismarck, ND: Author. Retrieved from http://www.dpi.state.nd.us/standard/content_standards_ela.shtm

North Dakota Department of Public Instruction. (2008). *North Dakota Health Content and Achievement Standards*. Bismarck, ND: Author. Retrieved from http://www.dpi.state.nd.us/standard/content/health/health2008.pdf

North Dakota Department of Public Instruction. (2012). *North Dakota Library and Technology Content Standards*. Bismarck, ND: Author. Retrieved from http://www.dpi.state.nd.us/standard/tech-stds.pdf

North Dakota Department of Public Instruction. (2011). *North Dakota Mathematics Content Standards*. Bismarck, ND: Author. Retrieved from http://www.dpi.state.nd.us/standard/content/math/2011/math.pdf

North Dakota Department of Public Instruction. (2008). *North Dakota Physical Education Content and Achievement Standards*. Bismarck, ND.: Author. Retrieved from http://www.dpi.state.nd.us/standard/content/PE/pe.pdf

North Dakota Department of Public Instruction. (2006*). North Dakota Science Content and Achievement Standards*. Bismarck, ND.: Author. Retrieved from http://www.dpi.state.nd.us/standard/content/science/science.pdf

North Dakota Department of Public Instruction. (2007). *North Dakota Content and Achievement Standards: Social Studies*. Bismarck, ND: Author. Retrieved from http://www.dpi.state.nd.us/standard/content/sstudies/SS.pdf

Final Summary and Recommendations Regarding the Adoption of this Curriculum