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Core Content Evidence Guide

Pre-K

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Gateway 1: Is the Curriculum Designed to Meet the Needs of All Students?

Criterion 1.1

Responsive Practices
Materials are designed to facilitate positive relationships by being responsive to diverse identities and backgrounds.

Purpose and Research

Research supports the importance of instructional materials that promote responsive practices, including strong relationships, family partnerships, and culturally and linguistically inclusive approaches in pre-K settings. Consistent, warm, and responsive teacher-child interactions foster trust and emotional security, which support children's social-emotional development, engagement, and ability to explore and learn (Bowlby, 1969; Pianta et al., 2003; Hamre & Pianta, 2001). Family engagement further strengthens these outcomes by creating alignment between home and school, reinforcing learning, and supporting children's language, literacy, and social-emotional development (Sheridan et al., 2010; Weiss et al., 2006).

Culturally and linguistically responsive practices also play a critical role in creating inclusive learning environments by reflecting children's identities, affirming their experiences, and promoting a sense of belonging (Gay, 2018; Ladson-Billings, 1995; NAEYC, 2020). In addition, anti-bias education research highlights the importance of intentionally addressing issues of identity, diversity, fairness, and justice in early childhood settings. Curenton and colleagues emphasize that young children actively notice and make meaning of differences, and that instructional materials should provide opportunities to engage in conversations about identity and equity in developmentally appropriate ways. Embedding anti-bias practices helps children develop positive self-concepts, respect for others, and the ability to recognize and challenge unfairness (Curenton et al., 2020).

Together, these responsive practices support equitable, affirming learning environments that foster children's social-emotional development, identity formation, and long-term academic success.

Criterion 1.1	**Responsive Practices** Materials are designed to facilitate positive relationships by being responsive to diverse identities and backgrounds.
Indicator 1.1a	Curriculum materials are designed to support positive relationships and interactions with adults.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust and varied activities that encourage positive and reciprocal interactions between adults and children. • Materials include quality, explicit guidance, and prompts to support trust building between children and adults. • Materials include robust and varied activities that encourage cooperative play, problem-solving, and engagement with adults. • Materials include robust and varied role-plays and scenarios that support educators in developing positive interactions with students. • Materials include explicit, meaningful, and repeated opportunities for children to practice building relationships with educators.	• Materials include some activities that encourage positive and reciprocal interactions between adults and children, • Materials include some guidance and prompts to support trust-building between children and adults. • Materials include some activities that encourage cooperative play, problem-solving, and engagement with adults. • Materials include some role-plays and scenarios that support educators in developing positive interactions with students. • Materials include some opportunities for children to practice building relationships with educators.	• Materials include limited activities that encourage positive and reciprocal interactions between adults and children. • Materials include limited guidance to support trust-building between children and adults. • Materials include limited activities that encourage cooperative play, problem-solving, and engagement with adults. • Materials include limited role-plays and scenarios that support educators in developing positive interactions with students. • Materials include limited opportunities for children to practice building relationships with educators.

Purpose and Research

Positive relationships and interactions with adults play a crucial role in helping young children build trust and develop strong social-emotional skills. According to attachment theory, children who experience consistent, warm,

and responsive interactions with caregivers develop a secure sense of trust, which allows them to explore their environment and engage in learning (Bowlby, 1969; Ainsworth, 1979). In a pre-K setting, when teachers provide emotional support, children feel safe to express their feelings, ask for help, and develop connections with peers. These secure relationships serve as a foundation for social competence and emotional regulation, helping children navigate their early experiences with confidence.

Research indicates that positive teacher-child interactions directly influence children's social and emotional development. Pianta, Hamre, and Stuhlman (2003) found that warm and supportive teacher relationships lead to improved social competence, fewer behavioral problems, and enhanced emotional well-being. These relationships also serve as models for peer interactions, fostering skills such as cooperation, empathy, and conflict resolution. Additionally, strong teacher-child relationships are linked to greater academic engagement and motivation. When children feel connected to their teachers, they are more likely to participate in learning activities, persist through challenges, and develop essential cognitive skills (Hamre & Pianta, 2001).

The benefits of early positive relationships extend beyond the preschool years, influencing children's ability to form trusting and healthy relationships throughout life. Secure attachments with teachers and caregivers contribute to the development of prosocial behaviors, such as effective communication and collaboration with peers (Howes & Ritchie, 2002). Furthermore, research from the National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network (2002) found that early supportive classroom environments positively impact long-term academic and social outcomes.

Evidence Collection

Note that interactions with adults include the following key areas:

- *Positive, reciprocal interactions with adults*
    - Activities or prompts designed to foster meaningful conversations and trust-building between teachers and students
    - Guidance on how teachers can model empathy, active listening, and responsiveness to students' needs
    - Activities that encourage cooperative play, problem-solving, and engagement with adults in the classroom
    - Examples of scenarios or role-play opportunities where students interact directly with adults in a supportive way

Gather evidence for the calibration meeting:

- Do the materials include activities that encourage positive and reciprocal interactions between adults and children?
- Do the materials include explicit guidance and prompts to support trust building between children and adults?
- Do the materials include activities that encourage cooperative play, problem-solving, and engagement with adults in the classroom?
- Do the materials include role-plays and scenarios that support educators in developing positive interactions with students?

- Does the curriculum include explicit opportunities for children to practice building relationships with educators (e.g., a specific lesson that builds trust through guided conversation or a group activity fostering emotional regulation)?

Criterion 1.1	**Responsive Practices** Materials are designed to facilitate positive relationships by being responsive to diverse identities and backgrounds.
Indicator 1.1b	Curriculum materials support collaborative partnerships with families by fostering communication and coordinating home-school learning.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide robust strategies for two-way communication, including tools and resources for gathering family input and sharing information about children's progress in the families' preferred language. • Materials include robust opportunities for family input, flexible involvement, and shared decision-making. • Materials focus on family strengths and positive contributions. • Materials meaningfully incorporate families' cultural practices and traditions. • Materials effectively and consistently coordinate home-school learning and provide suggestions for home learning activities, including both paper and technology-based tools.	• Materials provide strategies for two-way communication, but tools and resources for gathering family input and sharing information may be limited or not offer language adaptations. • Materials include some opportunities for family input, flexible involvement, and shared decision-making. • Materials somewhat focus on family strengths and positive contributions. • Materials provide some incorporation of families' cultural practices and traditions. • Materials provide some coordination of home-school learning and suggestions for home learning activities.	• Materials provide few strategies for two-way communication. • Materials include limited opportunities for family input, flexible involvement, and shared decision-making. • Materials focus on family deficits. • Materials provide minimal incorporation of families' cultural practices and traditions. • Materials provide minimal coordination of home-school learning and suggestions for home learning activities.

Purpose and Research

Research strongly supports the idea that pre-K instructional materials should help foster collaborative partnerships with families by promoting effective communication and coordinating learning between home and school. Family engagement in early childhood education is a key factor in promoting children's academic and social success. When families and educators work together, children are more likely to develop strong language, literacy, and social-emotional skills (Sheridan et al., 2010). Instructional materials that provide strategies, tools, and activities for communicating with families and extending learning into the home environment can strengthen this partnership and enhance children's development.

Effective home-school collaboration helps create consistency in learning experiences, reinforces key concepts, and affirms the role of families as children's first teachers. According to Weiss, Caspe, and Lopez (2006), curriculum materials that include family-friendly language, home-based activities, and regular opportunities for two-way communication foster trust and shared responsibility for student learning. These materials may include take-home extensions, newsletters, or digital tools that inform families about classroom goals and offer simple ways to support them at home. When schools intentionally align learning experiences across settings, families are better equipped to support their children's progress, and children benefit from a cohesive, supportive learning environment.

Moreover, research indicates that culturally and linguistically responsive materials play a critical role in making family partnerships more inclusive and equitable. Instructional resources that reflect and respect the diverse backgrounds of families can help build mutual understanding and encourage more meaningful engagement (Halgunseth et al., 2009). By embedding practices that encourage family voice, honor cultural values, and promote consistent, respectful communication, curriculum materials can lay the groundwork for strong and lasting home-school connections. These partnerships are not only beneficial for the child's immediate development but also contribute to long-term educational outcomes.

Evidence Collection

Note that collaborative partnerships with families include the following key areas:

- Fostering communication
    - Materials provide strategies for two-way communication, including methods for gathering family input and sharing information about children's progress in the families' preferred language.
    - Materials offer opportunities for family input and involvement in classroom activities and projects (e.g., family surveys, classroom visits, suggestions for shared reading at home, family projects).
    - Materials recognize differing family schedules and resources by offering flexible options for engagement and involvement.
    - Materials include mechanisms for shared decision-making and give families a voice in their child's

education.
    - Materials focus on family strengths and their positive contributions rather than deficits.
    - Materials demonstrate respect for cultural and linguistic diversity by incorporating families' cultural practices and traditions (e.g., materials could suggest visual cues in the classroom, such as family photos, multicultural décor, or bilingual signage that reflect the diversity of enrolled families)
    - Materials value family knowledge and recognize families as experts on their children.
    - Materials provide strategies and opportunities for families to advocate for their children's education.
- Coordinating home-school learning
    - Materials coordinate home-school learning through the distribution of learning materials sent home and suggestions for learning activities at home, and these materials may be technology-based in addition to traditional paper-based ones.
    - Materials frame family involvement as a positive and valuable contribution to the classroom

Gather evidence for the calibration meeting:

- Do the materials provide strategies for two-way communication, including tools and resources for gathering family input and sharing information about children's progress in the families' preferred language?
- Do the materials include opportunities for family input, involvement, and shared decision-making?
- Do the materials provide suggestions for flexible opportunities for family engagement and involvement?
- Do the materials focus on family strengths and positive contributions (rather than deficits)?
- Do materials incorporate families' cultural practices and traditions?
- Do the materials coordinate home-school learning through the distribution of learning materials sent home?
- Do the materials provide suggestions for home learning activities, including both paper and technology-based tools?

Criterion 1.1	**Responsive Practices** Materials are designed to facilitate positive relationships by being responsive to diverse identities and backgrounds.
Indicator 1.1c	Curriculum materials are culturally and linguistically responsive, reflecting and valuing learners' diverse backgrounds and languages.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials meaningfully incorporate a range of traditions, stories, customs, and celebrations from a variety of cultural backgrounds. • Materials have robust opportunities for children to share their cultural practices with peers. • Materials include robust guidance for educators on using culturally responsive teaching strategies and provide relevant examples across activities. • Materials offer robust guidance and resources on setting up the classroom to reflect cultural and linguistic backgrounds. • Materials offer all children an opportunity to see themselves positively represented in the books, images, and activities.	• Materials incorporate some traditions, stories, customs, and celebrations from varying cultural backgrounds. • Materials have some opportunities for children to share their cultural practices with peers. • Materials include moderate guidance for educators on using culturally responsive teaching strategies and provide some relevant examples across activities. • Materials offer moderate guidance and resources on setting up the classroom to reflect cultural and linguistic backgrounds. • Materials offer some children an opportunity to see themselves positively represented.	• Materials do not incorporate a range of traditions, stories, customs, and celebrations from a variety of cultural backgrounds. • Materials have a limited variety of culturally relevant examples across activities. • Materials have limited opportunities for children to share their cultural practices with peers. • Materials include minimal guidance for educators on using culturally responsive teaching strategies and provide limited relevant examples across activities. • Materials offer minimal guidance and resources on setting up the classroom to reflect cultural and linguistic backgrounds. • Materials do not offer all children an opportunity to see themselves positively represented in the books, images, and activities.

Purpose and Research

Research strongly supports the inclusion of culturally and linguistically responsive practices in pre-K instructional materials, as these practices are essential for affirming children's identities, promoting equity, and supporting academic success. Young children bring a wide range of cultural experiences, home languages, and values into the classroom, and when these are reflected in the materials and instruction, children feel seen, respected, and more engaged in learning. Culturally responsive curriculum materials foster a sense of belonging and identity, which in turn supports the development of positive self-concept and motivation to learn (Gay, 2018). This is especially important during the early years when children are forming foundational understandings about themselves and their place in the world.

Instructional materials that incorporate diverse cultural perspectives and linguistic representations help to bridge the gap between home and school, creating a more inclusive environment for all learners. According to Ladson-Billings (1995), culturally relevant pedagogy not only affirms students' cultural identities but also promotes academic success and critical thinking. In early childhood education, this includes the use of books, songs, images, and examples that represent a variety of racial, ethnic, and linguistic backgrounds, as well as instructional strategies that honor children's home languages and cultural practices (NAEYC, 2020). When children see their own cultures reflected in the classroom and are invited to share their experiences, they are more likely to engage meaningfully with the curriculum.

Additionally, linguistically responsive instructional materials support dual language learners by recognizing bilingualism as an asset and integrating strategies that build on the child's home language while supporting English development. Espinosa (2015) emphasizes the importance of using materials and approaches that are accessible and relevant to children from diverse language backgrounds, noting that such practices support both language development and academic growth. By embedding culturally and linguistically responsive content and approaches, pre-K materials help educators create inclusive, equitable learning environments that celebrate diversity and set all children up for long-term success.

Evidence Collection

Note that being culturally and linguistically responsive includes the following key areas:

- *Culturally and linguistically responsive practices*
    - Activities that incorporate traditions, customs, and celebrations from the children's cultural backgrounds.
    - Activities that have culturally relevant examples in storytelling, role-play, and problem-solving activities.
    - Activities for children to share their cultural practices, such as food, clothing, or holidays, with peers.
    - Materials include guidance for educators on using culturally responsive teaching strategies, such as

recognizing and valuing different communication styles.
    - Materials should include displays of children's artwork, stories, or projects that incorporate cultural elements.
    - Materials include support for including labels, signs, or resources in multiple languages.

Gather evidence for the calibration meeting:

- Do the materials incorporate traditions, stories, customs, and celebrations from a variety of cultural backgrounds?
- Do the materials have culturally relevant examples in storytelling, role-play, and problem-solving activities?
- Do the materials have activities for children to share their cultural practices with peers?
- Do the materials include guidance for educators on using culturally responsive teaching strategies?
- Do the materials offer guidance and resources on setting up the classroom to reflect cultural and linguistic backgrounds?
- Are children from all backgrounds able to see themselves positively represented in the books, images, and activities?
- Do the materials overall reflect and celebrate cultural, linguistic, and familial diversity?

Criterion 1.1	**Responsive Practices** Materials are designed to facilitate positive relationships by being responsive to diverse identities and backgrounds.
Indicator 1.1d	Curriculum materials are respectful of differences and designed to challenge prejudice, promote fairness, and foster compassion.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust resources for teachers to assess and revise their approaches to better align with the classroom's diversity. • Materials include robust frameworks that encourage teachers to adapt the curriculum based on cultural and linguistic needs. • Materials include a robust range of activities that promote empathy, respect, and appreciation for cultural differences. • Materials include robust guidelines for setting up the classroom to reflect and celebrate diversity authentically. • Materials provide robust, developmentally appropriate strategies that promote fairness, counter prejudice and discrimination, and challenge stereotypes (related to gender roles, family structures, and disabilities).	• Materials include moderate resources for teachers to assess and revise their approaches to better align with the classroom's diversity. • Materials include some frameworks that encourage teachers to adapt the curriculum based on needs, but may not fully reflect the range of cultural and linguistic needs. • Materials include a moderate range of activities that promote empathy, respect, and appreciation for cultural differences. • Materials include some guidelines for setting up the classroom to reflect and celebrate diversity. • Materials provide some developmentally appropriate strategies to promote fairness and address prejudice or stereotypes.	• Materials include limited resources for teachers to assess and revise their approaches to better align with the classroom's diversity. • Materials include limited frameworks that encourage teachers to adapt the curriculum based on cultural and linguistic needs. • Materials include few activities that promote empathy, respect, and appreciation for cultural differences. • Materials do not include guidelines for setting up the classroom to reflect and celebrate diversity authentically. • Materials provide minimal or no developmentally appropriate strategies to promote fairness or counter prejudice and stereotypes, or may reinforce biased or stereotypical representations.

Purpose and Research

Research supports the idea that pre-K instructional materials should be respectful of individual and group differences and intentionally designed to challenge prejudice, promote fairness, and foster compassion. Early childhood is a crucial time for developing children's understanding of identity, empathy, and social justice. Children begin to notice and form attitudes about differences in race, gender, ability, and culture at a very young age. Instructional materials that include diverse representation and explicitly teach equity and inclusion help children build positive self-identity and respect for others (Derman-Sparks & Edwards, 2020). When these materials provide opportunities for children to explore and celebrate diversity, they begin to develop the social-emotional skills needed to relate to others with empathy and fairness.

Anti-bias education in the early years is grounded in research that highlights the importance of exposing children to equitable learning environments that promote justice and challenge stereotypes. The Anti-Bias Education framework encourages the development of materials that reflect children's identities, expand their understanding of others, and prepare them to recognize and speak up against unfairness (Derman-Sparks et al., 2020). Books, images, activities, and discussions that challenge bias and encourage children to see multiple perspectives contribute to a more inclusive and compassionate classroom culture. Furthermore, when instructional materials encourage teachers to model kindness, fairness, and respect, they create a safe space for all children to thrive socially and emotionally.

Studies also show that promoting fairness and challenging prejudice in early childhood can have long-term positive effects on children's interpersonal skills, school engagement, and civic responsibility. Children who participate in programs that address diversity and justice demonstrate increased empathy, reduced biased behavior, and greater acceptance of others from different backgrounds (Killen & Rutland, 2011). By embedding these principles into pre-K instructional materials, educators can help shape the next generation of inclusive, compassionate thinkers and leaders.

Evidence Collection

Note that anti-bias education includes the following key areas:

- *Respectful of differences*
    - Materials should include practices for teachers to regularly assess and revise their approaches to better align with the classroom's diversity.
    - Materials should include activities that promote empathy, respect, and appreciation for cultural differences among children.
    - Materials should contain inclusive resources that portray children and families of various races, ethnicities, abilities, religions, and socioeconomic backgrounds.
    - Materials should provide teachers with strategies for learning about all students' and families' lived

experiences, both inside and outside the classroom.
    - Materials should offer examples of how to integrate lived experiences and different perspectives into lessons and activities.
- *Challenge prejudice, promote fairness, and foster compassion*
    - Materials should provide strategies to teach children about respectful behavior, to challenge prejudice, and promote fairness
    - Materials should counter various forms of prejudice and discrimination, such as those related to gender roles, family structures, and disabilities, and the materials should promote inclusive representation and challenge stereotypes
    - Materials should provide strategies to teach children how to have compassion for others
    - Materials should provide strategies to address issues of fairness and to present content related to fairness in a developmentally appropriate way

Gather evidence for the calibration meeting:

- Do the materials include practices and resources for teachers to assess and revise their approaches to better align with the classroom's diversity?
- Do the materials include frameworks and materials that encourage teachers to adapt the curriculum based on the cultural and linguistic needs of the classroom?
- Do the materials include suggested modifications or accommodations to ensure all children can fully participate?
- Do the materials include activities that promote empathy, respect, and appreciation for cultural differences?
- Are there guidelines for setting up the classroom to reflect and celebrate diversity authentically?
- Does the curriculum use inclusive and respectful language in its materials and activities?

Criterion 1.2

Diverse Learners
Curriculum materials include adaptations, modifications, scaffolds, and student supports.

Purpose and Research

Research supports the importance of instructional materials that intentionally address the needs of diverse learners by providing differentiated, flexible, and inclusive approaches to teaching and learning in pre-K settings. Early childhood classrooms include children with a wide range of abilities, learning styles, cultural backgrounds, and developmental levels, and materials that include built-in supports for differentiation, such as scaffolding strategies, multiple activity options, and guidance for adapting instruction, enable teachers to meet children where they are and support meaningful participation and growth (Tomlinson, 2014; NAEYC, 2020). Individualized and responsive instruction has been shown to improve outcomes across domains, particularly for children with varied learning needs, by supporting engagement, motivation, and skill development (Connor et al., 2004; Carta et al., 2010; Copple & Bredekamp, 2009).

Research also emphasizes the importance of embedding adaptations and supports for children with disabilities within instructional materials to ensure equitable access and participation. Inclusive practices that incorporate accommodations, visual supports, assistive strategies, and targeted scaffolds contribute to improved language, cognitive, and social-emotional outcomes, while also fostering inclusive classroom communities that benefit all learners (DEC/NAEYC, 2009; Sandall et al., 2005; Odom et al., 2011). Access to clear guidance and resources further supports educators in implementing these practices effectively (Bruder, 2010).

In addition, research highlights the importance of supporting multilingual learners through culturally and linguistically responsive instructional design. Effective materials recognize home languages as assets and include strategies such as visual supports, language modeling, and opportunities for children to build on prior linguistic knowledge to support both language acquisition and content understanding (Espinosa, 2015; Hammer et al., 2014; Gillanders & Castro, 2011). Culturally responsive approaches that reflect children's identities and experiences promote engagement and a sense of belonging (Bennett et al., 2018; Gunn et al., 2020). Further, multilingual learners benefit from instruction that intentionally integrates cultural and linguistic responsiveness, positioning students' languages and cultural knowledge as central to learning and supporting equitable access to academic content (Franco-Jenkins, 2019). Together, these research-based practices underscore the importance of comprehensive supports within instructional materials to ensure all children can access, engage in, and benefit from early learning experiences.

Criterion 1.2	**Diverse Learners** Curriculum materials include adaptations, modifications, scaffolds, and student supports.
Indicator 1.2a	Curriculum materials support teachers with adapting the curriculum to support students' needs, interests, and developmental stages.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials effectively support diverse learning styles and needs through adaptable resources and instructional practices. • Specific examples or strategies are provided for accommodating children with developmental differences. • Materials integrate flexible teaching techniques and alternative content formats based on Universal Design learning principles. • Materials include clear guidance and actionable adaptations to help teachers scaffold and differentiate instruction to ensure accessibility for all learners.	• Materials sometimes support diverse learning styles and needs through adaptable resources, instructional practices, and assessments. • Some examples or strategies are provided for accommodating children with developmental differences. • Materials sometimes integrate flexible teaching techniques and alternative content formats based on Universal Design learning principles. • Materials sometimes include guidance and actionable adaptations to help teachers scaffold and differentiate instruction and ensure accessibility for all learners.	• Materials rarely support diverse learning styles and needs through adaptable resources and instructional practices. • Limited or no examples or strategies are provided for accommodating children with developmental differences. • Materials rarely integrate flexible teaching techniques and alternative content formats based on Universal Design learning principles. • Materials rarely include guidance and actionable adaptations to help teachers scaffold and differentiate instruction and ensure accessibility for all learners.

Purpose and Research

Early childhood classrooms are inherently diverse, with children demonstrating a wide range of abilities, learning styles, cultural backgrounds, and developmental progressions. Instructional materials that offer guidance, flexibility, and strategies for differentiation enable teachers to tailor learning experiences so that every child can participate meaningfully and make progress (Tomlinson, 2014). The National Association for the Education of Young Children (NAEYC, 2020) emphasizes the importance of developmentally appropriate practice, which includes individualizing instruction to reflect children's current abilities and interests, thereby promoting engagement and supporting optimal growth.

When instructional materials provide built-in supports for differentiation—such as multiple activity options,

scaffolding techniques, and guidance for adapting content—they empower teachers to create inclusive learning environments. Research shows that individualized instruction can significantly enhance learning outcomes, especially for children who are dual language learners, have developmental delays, or face other learning challenges (Connor, Morrison, & Petrella, 2004). In particular, early interventions that are responsive to a child's specific developmental stage and learning profile are more likely to be effective in building foundational skills in literacy, math, and social-emotional development (Carta, Greenwood, Walker, & Buzhardt, 2010). Furthermore, when children's interests are incorporated into instruction, they are more motivated and engaged, which in turn promotes deeper learning and retention (Copple & Bredekamp, 2009). Therefore, high-quality pre-K materials should not only present content but also provide tools and strategies that help teachers make that content accessible and meaningful for all students.

Evidence Collection

Adapting the curriculum includes the following key concepts:

- *Differentiation and task analysis*
  - Materials include teacher support on ways to vary the content, process, product, and/or learning environment of activities.
  - Materials include task analysis suggestions for larger activities, such as providing support to teachers on how to break down a more complex task or activity into smaller steps to help children feel successful.
- *Scaffolding*
  - Materials include suggestions on observing children's play and learning, so teachers can plan and implement various supports, such as:
    - Visual aids or cues
    - Modeling an activity or behavior
    - Prompting or using open-ended questioning to help guide the child towards learning or understanding
- *Universal Design Learning principles*
  - Representation: Materials include a variety in which learning is presented to children
    - Activities that reflect children's varied sensory preferences
    - Activities that incorporate various languages, visuals, images, and symbols
  - Engagement: Materials include a variety of ways to motivate and engage children in learning
    - Activities are designed so that children have choice and autonomy
    - Activities present opportunities for collaboration with others in the classroom community
    - Activities support children in self-regulation, helping children set goals and take ownership of their learning
  - Expression: Materials include a variety of ways in which children learn and communicate their learning
    - Activities offer children opportunities to express their ideas through writing, drawing, or speaking
    - Activities offer children a variety in how they physically explore, as they move and manipulate materials in various ways

Gathering Evidence for the Cluster Meeting:

- Do the materials provide guidance on how to vary the content, process, product, and/or learning environment for specific activities?
- Do the materials offer guidance for how to break complex tasks or activities into smaller steps?
- Do the materials provide suggestions for observing children's zone of proximal development?
- Do the materials provide examples of student supports such as visual aids, teacher modeling, and guided questioning?
- Do the materials support the needs of diverse learners by including varied sensory experiences and incorporating various visuals, images, and symbols?
- Are materials designed to support choice, autonomy, and self-regulation for children?
- Do the materials provide opportunities for collaboration (ex. small groups, partner work, discussion)?
- Do the materials support children by providing multiple pathways to learning and communicating about their learning (e.g., drawing, building, role-playing, speaking)?

Criterion 1.2	**Diverse Learners** Curriculum materials include adaptations, modifications, scaffolds, and student supports.
Indicator 1.2b	Curriculum materials provide adaptations and supports for children with disabilities.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include clear and actionable adaptations or modifications for students with different types of disabilities (e.g., sensory, cognitive, physical, etc.) • Supports are integrated seamlessly into the lessons and as separate resources (e.g., scaffolding, assistive technologies, alternative formats). • Materials provide clear guidance to teachers in differentiating instruction and adjusting content to ensure accessibility for children with disabilities. • Specific examples or strategies are provided for accommodating children with disabilities.	• Materials include general adaptations or modifications for students with different types of disabilities (e.g., sensory, cognitive, physical, etc.) • Supports are somewhat integrated into the lessons or as separate resources (e.g., scaffolding, assistive technologies, alternative formats) • Materials include some general instructions to teachers in differentiating instruction and adjusting content to ensure accessibility for children with disabilities. • Some examples or strategies are provided for accommodating children with disabilities.	• Materials include minimal or limited adaptations or modifications for students with different types of disabilities (e.g., sensory, cognitive, physical, etc.) • Supports are minimal or unavailable within lessons and there are no separate resources (e.g., scaffolding, assistive technologies, alternative formats) • Materials rarely or do not guide teachers in differentiating instruction and adjusting content to ensure accessibility for children with disabilities. • Limited or no examples or strategies are provided for accommodating children with disabilities.

Purpose and Research

Research strongly supports the inclusion of adaptations and supports for children with disabilities in pre-K instructional materials to ensure equitable access to learning and full participation in early childhood education. Young children with disabilities benefit significantly from environments that are inclusive and responsive to their unique needs. According to the Division for Early Childhood (DEC) of the Council for Exceptional Children,

high-quality early childhood programs should embed individualized accommodations, modifications, and supports within the curriculum to promote engagement and learning (DEC/NAEYC, 2009).

Instructional materials that include strategies for differentiation, visual supports, assistive technology suggestions, and targeted scaffolds can help teachers create inclusive settings where all children thrive. Research shows that when young children with disabilities receive tailored support aligned with their developmental goals, they demonstrate improved outcomes in language, cognitive, and social-emotional domains (Sandall, Hemmeter, Smith, & McLean, 2005). Additionally, inclusive practices not only benefit children with disabilities but also enhance the learning experiences of their peers by promoting empathy, collaboration, and diverse learning opportunities (Odom, Buysse, & Soukakou, 2011).

Furthermore, ongoing professional development and access to inclusive resources can support educators in confidently implementing adaptations. Teachers who are well-equipped with instructional materials that offer practical strategies for inclusion are more likely to feel competent and effective in supporting children with diverse abilities (Bruder, 2010). Therefore, the inclusion of comprehensive adaptations and supports in pre-K curricula is not only evidence-based but also essential for promoting equity, access, and high-quality learning outcomes for all children.

Evidence Collection

Support for children with disabilities includes the following key concepts:

- *Planning and Implementing Adaptations*
  - Sensory Disabilities: Materials that provide visual aids, auditory enhancements, or alternative formats for students with hearing or visual impairments (e.g., captions, screen readers, tactile learning tools).
  - Cognitive Disabilities: Instructions that break down tasks into smaller steps, use of graphic organizers, or repetition of key concepts.
  - Physical Disabilities: Opportunities for students with mobility impairments to access content (e.g., assistive technologies, adjustable workspaces)
- *Support for Modifications*
  - Specific guidance or prompts that describe how to modify a lesson to support students with various disabilities, such as providing extra time for tasks or allowing for multiple forms of assessment (e.g., oral presentations or projects)
  - Materials include embedded support strategies in instructional routines that are an integral part of the lesson rather than separate, optional resources. (e.g., scaffolding a child during a lesson to offer support in learning)
- *Strategies*
  - Supports that help children access the same activity without significantly changing the task or expectations

Gathering Evidence for the Cluster Meeting:

- Do the materials provide support for students with sensory disabilities, including visual aids, auditory

enhancements, or alternative formats for students with hearing or visual impairment?

- Do the materials provide support for students with cognitive disabilities by providing teachers with suggestions on how to break tasks into smaller steps, use graphic organizers, or repeat key concepts?
- Do the materials provide support for students with physical disabilities by including various ways to access content?
- Do the materials include specific guidance on how to modify a lesson to support students with different types of disabilities (e.g., sensory, cognitive, physical, etc.)?
- Are the supports integrated seamlessly into the lessons or provided as separate resources (e.g., scaffolding, assistive technologies, alternative formats)?

Criterion 1.2	**Diverse Learners** Curriculum materials include adaptations, modifications, scaffolds, and student supports.
Indicator 1.2c	Curriculum materials provide support for multilingual learners to facilitate language acquisition and content comprehension.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials consistently affirm and leverage students' cultural backgrounds, home languages, and experiences into classroom activities. • Materials and strategies are consistently culturally and linguistically responsive, offering bilingual resources and addressing cultural nuances beyond simple translation. • Materials frequently provide scaffolding, routines, and questioning techniques, including strategies like Total Physical Response (TPR), to support diverse language proficiency levels. • Vocabulary-building activities, sentence frames, and language structures are frequently included, with clear language development goals and a progression from basic to advanced proficiency.	• Materials sometimes affirm and leverage students' cultural backgrounds, home languages, and experiences into classroom activities. • Materials and strategies are sometimes culturally and linguistically responsive, offering bilingual resources and addressing cultural nuances beyond simple translation. • Materials sometimes provide scaffolding, routines, and questioning techniques, including strategies like Total Physical Response (TPR), to support diverse language proficiency levels. • Vocabulary-building activities, sentence frames, and language structures are sometimes included, with clear language development goals and a progression from basic to advanced proficiency.	• Materials rarely affirm and leverage students' cultural backgrounds, home languages, and experiences into classroom activities. • Materials and strategies are rarely culturally and linguistically responsive, offering bilingual resources and addressing cultural nuances beyond simple translation. • Materials rarely provide scaffolding, routines, and questioning techniques, including strategies like Total Physical Response (TPR), to support diverse language proficiency levels. • Vocabulary-building activities, sentence frames, and language structures are rarely included, with clear language development goals and a progression from basic to advanced proficiency.

Purpose and Research

Research strongly supports the inclusion of specific supports in pre-K instructional materials to facilitate both language acquisition and content comprehension for multilingual learners. These learners bring rich linguistic and cultural backgrounds to the classroom, and when instructional materials are intentionally designed to affirm their identities and scaffold their development, they are more likely to thrive academically and socially (Espinosa, 2015). Early childhood is a critical period for language development, and high-quality instructional materials should provide strategies such as visual supports, native language integration, and language modeling to make learning accessible and meaningful for children who are learning English in addition to their home language.

Curriculum materials designed to support multilingual learners should reflect students' diverse cultural and linguistic identities, positioning their home languages and cultural knowledge as assets to learning. When materials are aligned with culturally responsive teaching, they create inclusive spaces where children see their backgrounds represented and valued (Bennett et al., 2018; Gunn et al., 2020). Drawing on research in second language acquisition, effective materials also provide comprehensible input and promote cross-linguistic transfer, allowing children to build on what they know in their home language to support English development. Leveraging similarities and differences across languages helps deepen understanding and accelerate learning (Hammer et al., 2014). To further support access to content, instructional materials should embed scaffolding strategies—such as visual aids, sentence frames, and graphic organizers—that help multilingual learners engage with academic concepts while developing their language skills (Gillanders & Castro, 2011; Zepeda, Castro, & Cronin, 2011). Through intentional design, curriculum can play a powerful role in promoting equity and success for multilingual students.

Evidence Collection

Support for multilingual learners includes the following key concepts:

- *Language acquisition and content comprehension*
  - Materials that offer explicit support for home language alongside English development
  - Lesson plans or unit overviews that outline explicit strategies for scaffolding language development at different proficiency levels (e.g., beginner, intermediate, advanced)
  - Specific routines or scaffolding strategies are outlined for supporting multilingual learners during classroom instruction.
  - Student activities that include opportunities for language practice, as well as tasks that support the development of both English and the home language
  - Supports for students learning at various developmental and ability levels of English

- *Teacher Guidance*
  - Support for teachers to scaffold English language development while supporting students' home language

- Materials offer strategies for differentiating instruction to meet the diverse needs of multilingual learners, including varied levels of text complexity, different types of comprehension support, and flexible peer grouping.
- Materials include strategies for teachers to incorporate students' home languages into instruction (e.g., allowing discussions in the home language, using cognates of a language, and encouraging metalinguistic thinking)
- Detailed guidance for how teachers can adapt and adjust instruction to support children from multilingual backgrounds, including dialects and vernaculars
- Support and guidance for teachers about how a language difference should not be confused with a language disability

Gathering Evidence for the Calibration Meeting:

- Does the curriculum acknowledge and integrate students' cultural backgrounds, home languages, and experiences into classroom activities?
- Are materials and strategies culturally and linguistically responsive, offering bilingual resources and addressing cultural nuances beyond simple translation?
- Do the materials provide scaffolding, routines, and questioning techniques, including strategies like Total Physical Response (TPR), to support diverse language proficiency levels?
- Are vocabulary-building activities, sentence frames, and language structures included, with clear language development goals and a progression from basic to advanced proficiency?
- Do activities leverage home languages and diversify linguistic assets for multilingual learners?

Gateway 2: Alignment to Developmental Domains and Content Areas

Criterion 2.1

Curriculum Approach and Design
Curriculum materials have a coherent and strategic curriculum design and approach.

Purpose and Research

Research strongly supports the idea that pre-K instructional materials should follow a coherent and strategic curriculum design, as such an approach ensures alignment with child development principles and maximizes learning outcomes. A well-structured curriculum that clearly articulates learning goals, progressions, and instructional methods provides consistency and intentionality in teaching. There are many ways to think about this, including learning trajectories (Clements & Sarama, 2021), which help unite three key elements: learning goals, developmental progressions (understanding children's thinking and the levels of understanding they learn; related to a scope and sequence), and learning activities and teaching strategies (for each level). According to the National Research Council (2001), coherent curricula help educators deliver developmentally appropriate content in a way that builds on children's prior knowledge and supports cumulative learning. When children are exposed to experiences that are strategically sequenced and interconnected across domains, they are more likely to engage meaningfully and make deeper connections between ideas.

Strategic curriculum design also supports educators by offering a clear framework that guides instruction while allowing for responsiveness to individual learners. The National Academies of Sciences, Engineering & Medicine (2024) found that a high-quality preschool curriculum includes a scope and sequence. Curriculum includes or guides activities to be carried out in a particular order, matching children's developmental trajectories for each of the domains covered by the curriculum. The Institute of Medicine and National Research Council (2015) emphasizes that high-quality early learning curricula must integrate learning across content areas and include intentional instructional strategies that promote rich interactions and sustained engagement. Rather than isolated or fragmented activities, effective materials present concepts in a logically organized manner, building in complexity over time to support children's conceptual growth. Additionally, a coherent curriculum allows for greater fidelity in implementation, enabling teachers to plan, differentiate, and assess more effectively.

Evidence Collection

A comprehensive approach to the Pre-K curriculum should include the following key areas:

- *Learning Goals*

    - Specific, developmentally appropriate learning goals and objectives are embedded throughout the curriculum.
    - For some content areas, a learning focus or description of skills and concepts may be adequate.
- *Scope and Sequence, which represents a thoughtful progression of learning objectives*
    - Specific, strategic, and research-aligned scope and sequence, aligned with children's developmental progression, where appropriate, that teachers are expected to follow during implementation.
    - Scope and sequence outlines what the curriculum focuses on and how the plans and materials support children at different levels of development. The scope refers to the areas of development addressed by the curriculum; the sequence refers to plans and materials for learning experiences that progressively build from less to more complex, with the goal of supporting children as they move through the developmental progressions.
- *Research-Supported Instructional Practices*
    - Materials reflect current research on content and teaching practices that support children's development and learning.

Note that we expect that in a multi-domain Pre-K curriculum, domains may be structured differently:

- **Social Emotional Learning, Language & Literacy, and Math** should have learning goals and objectives, as well as a clearly defined, logical, and thoughtful scope and sequence that reflects children's developmental progression. Note that in mathematics, this should follow the learning trajectories established in the field.
  Math Learning Trajectories
- **Social Studies, Science & Engineering, and Fine Arts** should have learning goals and objectives that address the disciplines of each domain; the scope of content should be well-defined, and there should be a logical sequence, but content ordering may be more flexible.
- **Physical Motor Development** is not included here, as the skills are more embedded and may be more flexible

*Be sure to refer to the domain-specific indicators to identify the content

Gathering Evidence for the Cluster Meeting:

The questions that help gather evidence will be similar for each subject, but should be more rigorous for Social Emotional Learning, Literacy, and Math.

- Do the materials include clear learning goals and/or targets?
- Are learning goals and/or targets specific and developmentally appropriate?
- Are the instructional practices aligned with the learning goals?
- Is there a clear scope or progression of the skills and concepts being introduced, developed, and extended gradually throughout the curriculum?
- Is there research or a conceptual framework cited to provide support for the scope or progression?
- Are the skills and concepts developed in a logical and intentional sequence through the curriculum?
- Do the materials include activities and teaching practices that are research-based and support children's development and learning?

Criterion 2.1	**Curriculum Approach and Design** Curriculum materials have a coherent and strategic curriculum design and approach.
Indicator 2.1a	Social and Emotional Development: Curriculum materials support social-emotional development through a comprehensive approach that includes clear learning goals, a well-structured developmental sequence, and the use of research-supported instructional practices.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials demonstrate alignment with documented key social and emotional milestones and clearly identify the content that should be learned. • Materials include robust sequencing of social and emotional content that follows a clear and thoughtful progression. • Materials include clear, developmentally appropriate learning goals and objectives for social and emotional learning. • Materials include lesson plans tied to learning goals • Materials clearly connect social and emotional learning with other areas of learning • Materials include robust research-based teaching practices that support children's development and learning	• Materials demonstrate moderate alignment (some gaps) with documented key social and emotional milestones, and the content that is present lacks specificity. • Materials include some (inconsistent or underdeveloped) sequencing of social and emotional content. • Materials include learning goals and/or objectives, but lack specificity or are not developmentally appropriate for social-emotional learning. • Materials include lesson plans that are vaguely aligned to learning goals • Materials include some (inconsistent or underdeveloped) connections between social and emotional learning and other areas of learning • Materials include some research-based teaching practices that support children's development and learning	• Materials are not aligned with documented key social and emotional milestones and do not include content that should be learned. • Materials do not include a clear, logical sequence for content delivery • Materials do not include learning goals or objectives, or they are unclear • Materials do not include lesson plans tied to learning goals • Materials do not have any connections between social and emotional learning and other areas of learning • Materials do not include research-based teaching practices

Criterion 2.1	**Curriculum Approach and Design** Curriculum materials have a coherent and strategic curriculum design and approach.
Indicator 2.1b	Language and Literacy: Curriculum materials support language and literacy instruction through a comprehensive approach that includes clear learning goals, research-aligned scope and sequence, and uses research-supported instructional practices.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials demonstrate alignment with documented key literacy milestones and clearly identify the literacy content that should be learned. • Materials include a robust sequencing of literacy content that follows a clear and thoughtful progression. • Materials include clear, developmentally appropriate learning goals and objectives for literacy. • Materials include lesson plans tied to learning goals • Materials clearly connect literacy learning with other areas of learning • Materials include robust research-based teaching practices that support children's development and learning	• Materials demonstrate moderate alignment (some gaps) with documented key literacy milestones, and the literacy content that is present lacks specificity. • Materials include some (inconsistent or underdeveloped) sequencing of literacy content for Pre-K students. • Materials include learning goals and/or objectives, but lack specificity or are not developmentally appropriate for literacy. • Materials include lesson plans that are vaguely aligned to learning goals • Materials include some (inconsistent or underdeveloped) connections between literacy learning and other areas of learning • Materials include some research-based teaching that supports children's development and learning	• Materials are not aligned with documented key literacy milestones and do not include the literacy content that should be learned. • Materials do not include a clear, logical sequence for content delivery • Materials do not include learning goals or objectives, or they are unclear • Materials do not include lesson plans tied to learning goals • Materials do not have any connections between literacy and other areas of learning • Materials do not include research-based teaching practices

Criterion 2.1	**Curriculum Approach and Design** Curriculum materials have a coherent and strategic curriculum design and approach.
Indicator 2.1c	Mathematics: Curriculum materials use a comprehensive approach that includes clear learning goals, research-aligned scope and sequence, research-supported instructional practices, and mathematical process standards to ensure effective and meaningful mathematics learning experiences.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials demonstrate alignment with documented key mathematical milestones and clearly identify the mathematical content that should be learned. • Materials include robust sequencing of mathematical content that follows a clear, thoughtful, and research-aligned progression. • Materials include clear, developmentally appropriate learning goals and objectives for mathematical learning. • Materials include lesson plans tied to learning goals • Materials clearly connect mathematical learning with other areas of learning • Materials include robust research-based teaching practices aligned to mathematical process standards that support children's development and learning	• Materials demonstrate moderate alignment (some gaps) with documented key mathematical milestones, and the mathematical content that is present lacks specificity. • Materials include some (inconsistent or underdeveloped) sequencing of mathematical content. • Materials include learning goals and objectives, but lack specificity or are not developmentally appropriate for mathematical learning. • Materials include lesson plans that are vaguely aligned to learning goals • Materials include some (inconsistent or underdeveloped) connections between mathematical learning and other areas of learning • Materials include some research-based teaching practices aligned to mathematical process standards that support children's development and learning	• Materials are not aligned with documented key mathematical milestones and do not include the mathematical content that should be learned. • Materials do not include a clear, logical sequence for content delivery • Materials do not include learning goals, or they are unclear • Materials do not include lesson plans tied to learning goals or objectives • Materials do not have any connections between mathematical learning and other areas of learning • Materials do not include research-based teaching practices that are aligned to mathematical process standards

Criterion 2.1	**Curriculum Approach and Design** Curriculum materials have a coherent and strategic curriculum design and approach.
Indicator 2.1d	Science and Engineering: Curriculum materials support science and engineering learning experiences by offering clear learning goals that encompass core knowledge concepts, as well as research-supported instructional practices.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials demonstrate alignment with documented key science and engineering milestones and clearly identify the science and engineering content that should be learned. • Materials include clear, developmentally appropriate learning goals and objectives for science and engineering learning. • Materials include science and engineering content that follows a clear and thoughtful progression. • Materials include lesson plans tied to learning goals • Materials clearly connect science and engineering learning with other areas of learning • Materials include robust research-based teaching practices that support children's development and learning	• Materials demonstrate moderate alignment (some gaps) with documented key science and engineering milestones, and the science content that is present lacks specificity. • Materials include learning goals or objectives, but lack specificity or are not developmentally appropriate for science and engineering learning. • Materials include some (inconsistent or underdeveloped) progression of science and engineering content. • Materials include lesson plans that are vaguely aligned to learning goals • Materials include some (inconsistent or underdeveloped) connections between science and engineering learning, and other areas of learning • Materials include some research-based teaching practices that support children's development and learning	• Materials are not aligned with documented key science and engineering milestones and do not include the science and engineering content that should be learned. • Materials do not include learning goals or objectives; they are unclear • Materials do not include a clear, logical progression for content delivery • Materials do not include lesson plans tied to learning goals • Materials do not have any connections between science and engineering learning and other areas of learning • Materials do not include research-based teaching practices

Criterion 2.1	**Curriculum Approach and Design** Curriculum materials have a coherent and strategic curriculum design and approach.
Indicator 2.1e	Social Studies: Curriculum materials support social studies learning experiences by offering learning goals that encompass core knowledge concepts, as well as research-supported instructional practices.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials demonstrate alignment with documented key social studies milestones and clearly identify the social studies content that should be learned. • Materials include clear, developmentally appropriate learning goals and objectives for social studies learning. • Materials include social studies content that follows a clear and thoughtful progression. • Materials include lesson plans tied to learning goals • Materials clearly connect social studies learning with other areas of learning • Materials include robust research-based teaching practices that support children's development and learning	• Materials demonstrate moderate alignment (some gaps) with documented key social studies milestones, and the social studies content that is present lacks specificity. • Materials include learning goals and/or objectives, but lack specificity or are not developmentally appropriate for social studies learning. • Materials include some (inconsistent or underdeveloped) progression of social studies content. • Materials include lesson plans that are vaguely aligned to learning goals • Materials include some (inconsistent or underdeveloped) connections between social studies learning and other areas of learning • Materials include some research-based teaching practices that support children's development and learning	• Materials are not aligned with documented key social studies milestones and do not include the social studies content that should be learned. • Materials do not include learning goals, or they are unclear • Materials do not include lesson plans tied to learning goals • Materials do not include a clear, logical progression for content delivery • Materials do not have any connections between social studies learning and other areas of learning • Materials do not include research-based teaching practices

Criterion 2.1	**Curriculum Approach and Design** Curriculum materials have a coherent and strategic curriculum design and approach.
Indicator 2.1f	Fine Arts: Curriculum materials support fine arts experiences by offering learning targets that encompass core knowledge concepts, as well as research-supported instructional practices

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials demonstrate alignment with documented key fine arts milestones and clearly identify the fine arts content that should be learned. • Materials include clear, developmentally appropriate learning goals and objectives for fine arts learning. • Materials include fine arts content that follows a clear and thoughtful progression. • Materials include lesson plans tied to learning goals • Materials clearly connect fine arts learning with other areas of learning • Materials include robust research-based teaching practices that support children's development and learning.	• Materials demonstrate moderate alignment (some gaps) with documented key fine arts milestones, and the fine arts content presented lacks specificity. • Materials include learning goals and/or objectives, but lack specificity or are not developmentally appropriate for fine arts learning. • Materials include some (inconsistent or underdeveloped) progression of fine arts content. • Materials include lesson plans that are vaguely aligned to learning goals • Materials include some (inconsistent or underdeveloped) connections between fine arts learning and other areas of learning • Materials include some research-based teaching practices that support children's development and learning.	• Materials are not aligned with documented key fine arts milestones and do not include the fine arts content that should be learned. • Materials do not include learning goals or objectives, or they are unclear • Materials do not include a clear, logical progression for content delivery • Materials do not include lesson plans tied to learning goals • Materials do not have any connections between fine arts learning and other areas of learning • Materials do not include research-based teaching practices

Criterion 2.2

Social and Emotional Development
Curriculum materials develop knowledge and skills that promote healthy social and emotional development.

Purpose and Research

The development of social and emotional skills is critical for young children as it forms the foundation for their academic, social, and emotional well-being throughout life. According to the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2020), social-emotional learning is the process by which children acquire and apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, show empathy, establish and maintain positive relationships, and make responsible decisions. These skills are essential for school readiness, helping children regulate their emotions, follow routines, and stay focused during classroom activities.

Additionally, social skills like sharing, cooperation, and turn-taking enable children to build positive relationships with peers and adults, enriching their learning experiences. Emotional regulation and social competence also improve learning by allowing children to engage in tasks more effectively, persist through challenges, and develop cognitive abilities. Research highlights the importance of social and emotional development in young children, particularly at ages four and five (Denham, 2019). Durlak, Domitrovich, and Mahoney (2024) emphasize the importance of embedding social and emotional learning goals across the curriculum to help children develop foundational skills that not only promote academic achievement but also emotional well-being and positive social behavior.

Criterion 2.2	**Social and Emotional Development** Curriculum materials develop knowledge and skills that promote healthy social and emotional development.
Indicator 2.2a	Curriculum materials are designed to foster children's positive social orientation and self-identity.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide meaningful, varied, and rich opportunities to engage in learning and exploration of identity and self. • Materials provide robust opportunities for children to make choices, build agency, and take on responsibility. • Materials include robust opportunities for students to talk about self-identity, including teaching vocabulary and gestures. • Materials support children in developing an awareness of others, including how to relate and adapt in social situations. • Materials include robust opportunities for students to learn social skills through explicit play and practice. • Materials include varied and robust activities that encourage children to express their personal identities and feel valued as part of the classroom community.	• Materials provide some opportunities to engage in learning and exploration of identity and self. • Materials provide moderate opportunities for children to make choices, build agency, and take on responsibility. • Materials include moderate opportunities for students to talk about self-identity, including teaching vocabulary and gestures. • Materials provide children with some support in developing an awareness of others, including how to relate and adapt in social situations. • Materials include some opportunities for students to learn social skills, but may not have both explicit play and practice. • Materials include some activities that encourage children to express their personal identities and feel valued as part of the classroom community.	• Materials provide limited opportunities to engage in learning and exploration of identity and self. • Materials provide limited opportunities for children to make choices, build agency, and take on responsibility. • Materials include limited opportunities for students to talk about self-identity, such as teaching vocabulary and gestures. • Materials provide limited support to children in developing an awareness of others. • Materials include few opportunities for students to learn social skills. • Materials include limited activities that encourage children to express their personal identities and feel valued as part of the classroom community.

Purpose and Research

The focus on fostering positive self-identity in young learners is well-supported by both educational theories and contemporary research findings. When children develop a strong sense of self, they are more likely to build confidence and self-esteem, which fosters emotional stability and resilience. This sense of self-worth helps them

approach new challenges with optimism and perseverance. Feeling secure in who they are enables them to respect and value diversity, promoting inclusivity and kindness in social interactions (Harter, 2012).

Research shows that when children see their culture and language reflected in educational content, it positively impacts their academic engagement, emotional well-being, and overall school performance. Key theories like Culturally Relevant Pedagogy (Ladson-Billings, 1995) and Funds of Knowledge (Moll et al., 2005) emphasize the importance of connecting classroom experiences with children's cultural backgrounds, languages, and home experiences to support a sense of belonging and academic success. According to Ladson-Billings (1995), culturally relevant teaching empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes. Gutiérrez & Rogoff (2003) found that bridging children's community practices with classroom activities creates more inclusive learning environments, allowing children to see the relevance of school to their everyday lives.

By fostering a positive self-identity in pre-K students, educators can empower children to recognize their value, build meaningful connections, and approach life with confidence and curiosity. This foundation supports their growth into empathetic and resilient individuals, setting the stage for future success in academic, social, and emotional domains.

Evidence Collection

This indicator includes the following key areas:

- *Social orientation*
    - Materials support children as they develop awareness of other people, how they relate to others, and adapt in social situations (e.g., role playing and reading books that feature children making friends)
    - Activities that support children as they learn social skills (e.g., taking turns and sharing)
    - Activities that promote engagement in social situations (e.g., mealtime conversations)
- *Self-identity*
    - Activities that engage children in exploring and expressing their unique identities (e.g., self-portraits)
    - Opportunities for children to recognize themselves as members of various communities (e.g., discussion of role in family, school, community, etc.)
    - Activities that support children in making choices and having responsibility (e.g., classroom jobs, center chart)

Gathering Evidence for the Cluster Meeting:

- Do the materials included provide meaningful and rich opportunities to engage in learning and exploration of identity and self?
- Are there multiple and varied opportunities for children to explore their identities through play?
- Do the materials support children in making choices, building agency, and taking on roles of responsibility?
- Does the curriculum include opportunities for children to practice talking about self-identity and provide explicit vocabulary and/or gestures to support them?

- Do the materials support children in developing an awareness of others, including how to relate to others and adapt in social situations?
- Do the materials include opportunities for students to learn social skills through explicit practice and play?
- Do the materials include activities that prompt engagement in social situations?
- Do the materials include activities that encourage children to express their personal identities and feel valued as part of the classroom community?

Criterion 2.2	**Social and Emotional Development** Curriculum materials develop knowledge and skills that promote healthy social and emotional development.
Indicator 2.2b	Curriculum materials are designed to support emotional development and regulation.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide robust and varied opportunities for children to strengthen and build their skills in recognizing and expressing emotions through practice and play. • Materials include frequent, robust, and varied opportunities for children to practice and develop regulating and managing emotional responses. • Materials include meaningful and rich opportunities to learn about, practice, and develop coping and calming mechanisms. • Materials provide robust and clear guidance on setting up the physical environment (e.g., a calming corner, feelings charts, etc.). • Materials include robust support for students struggling with emotional development and regulation.	• Materials provide opportunities for children to strengthen and build their skills in recognizing and expressing emotions through practice and play. • Materials include some opportunities for children to practice and develop regulating and managing emotional responses. • Materials include some opportunities to learn about, practice, and develop coping and calming mechanisms. • Materials provide some guidance on setting up the physical environment (e.g., a calming corner, feelings charts, etc.) • Materials include moderate support for students struggling with emotional development and regulation.	• Materials provide limited opportunities for children to strengthen and build their skills in recognizing and expressing emotions. • Materials include limited opportunities for children to practice and develop regulating and managing emotional responses. • Materials include limited opportunities to learn about, practice, and develop coping and calming mechanisms. • Materials provide limited to no guidance on setting up the physical environment (e.g., a calming corner, feelings charts, etc.). • Materials include limited support for students struggling with emotional development and regulation.

Purpose and Research Connection

Emotional development and regulation are critical for pre-K students, as these skills form the foundation for academic success, social competence, and long-term mental health. Research shows that children who can internally regulate their emotions are better able to focus on tasks, manage frustration, and adapt to classroom routines, which supports cognitive development and learning (Blair & Diamond, 2008). Children with strong social-emotional competence tend to adapt better to structured classroom environments, follow instructions, and engage in learning activities (Rimm-Kaufman et al., 2009). Emotional regulation also enhances attention span and

problem-solving skills, both of which contribute to academic achievement (Raver, 2002). Furthermore, these skills are vital for fostering positive social relationships. Pre-K students who can manage their emotions are more likely to engage in prosocial behaviors such as sharing, taking turns, and resolving conflicts constructively, which helps them form meaningful connections with peers and teachers (Denham et al., 2003).

Learning emotional regulation early in life also supports long-term emotional and behavioral health. Children who develop these skills are less likely to experience anxiety, depression, or behavioral challenges later in life (Eisenberg & Sulik, 2012). Emotional regulation is also closely tied to the development of executive functions, such as impulse control, working memory, and flexible thinking. These abilities help children think critically, make decisions, and adapt to new situations, all of which are essential for academic and social success (Carlson & Wang, 2007). By learning to identify and express their emotions appropriately, children also build confidence and a positive sense of self, which fosters independence and self-esteem (Thompson, 1994).

Evidence Collection

This indicator includes the following key areas:

- *Recognizing and Expressing Emotions*
  - Activities or books that teach emotion identification and expression
  - Daily emotional check-ins or circle time discussions
  - Activities that encourage self-expression (e.g., drawing feelings)
- *Regulating and Managing Individual Emotions and Expressions*
  - Activities that support children in identifying and naming emotions (e.g., feelings charts or images)
  - Examples of teacher modeling of appropriate emotional responses (e.g., teacher using “I Statements”)
- *Coping Mechanisms*
  - Instructional guides for teachers to incorporate breathing exercises, mindfulness, or calming strategies
  - Support for creating and using coping strategies (e.g., using calming toys or visiting a calm-down corner)
  - Activities or routines that help solve social conflicts (e.g., peace talks or talking sticks)

Gathering Evidence for the Calibration Meeting:

- Do the materials provide opportunities for children to strengthen and build their skills in **recognizing and expressing emotions**?
- Are there opportunities for play and practice to name and recognize emotions, and use imaginative play to demonstrate and understand emotions?
- Does the curriculum include opportunities for children to practice and develop **regulating and managing emotional responses**?
- What is the frequency and variety of engaging opportunities for emotional development and regulation?
- Do the materials include activities that explicitly focus on developing **coping mechanisms**?
- Do the materials include providing meaningful and rich opportunities to practice and develop coping and calming mechanisms?
- Do the materials provide guidance on setting up the physical environment (e.g., a calming corner, feelings charts, etc.)?

- Do the materials include support for students struggling with emotional development and regulation?

Criterion 2.2	**Social and Emotional Development** Curriculum materials develop knowledge and skills that promote healthy social and emotional development.
Indicator 2.2c	Curriculum materials are designed to support behavioral self-management

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include a variety of robust activities that support listening and attention skills through play and practice. • Materials include robust support for developing rule-following habits by reinforcing classroom expectations and turn-taking. • Materials provide robust support for children in developing and understanding the consequences of their actions. • Materials provide robust support for the development of classroom and child-level routines. • Materials include robust activities to support children as they develop adaptability and flexibility. • Materials include robust and meaningful opportunities for children to learn and practice strategies for impulse control in a variety of settings. • Materials include robust support to children in making thoughtful choices through explicit instruction and robust opportunities for play and practice.	• Materials include some activities that support listening and attention skills through play and practice. • Materials include moderate support for developing rule-following habits by reinforcing classroom expectations and turn-taking. • Materials provide moderate support for children in developing and understanding the consequences of their actions. • Materials provide moderate support for the development of classroom and child-level routines. • Materials include some activities to support children as they develop adaptability and flexibility. • Materials include some opportunities for children to learn and practice strategies for impulse control. • Materials provide moderate support to children in making thoughtful choices through explicit instruction and opportunities for play and practice.	• Materials include limited activities that support listening and attention skills through play and practice. • Materials include limited support for developing rule-following habits by reinforcing classroom expectations and turn-taking. • Materials provide limited support for children in developing an understanding of the consequences of their actions. • Materials provide limited support for the development of classroom and child-level routines. • Materials include limited support to children as they develop adaptability and flexibility. • Materials limited opportunities for children to learn and practice strategies for impulse control in a variety of settings. • Materials provide limited support to children in making thoughtful choices.

Purpose and Research

Research strongly supports teaching behavioral self-management in pre-K, as it is a foundational skill that influences children's social interactions, emotional well-being, and academic readiness. Young children are still developing their ability to regulate emotions, control impulses, and persist through challenges, making early instruction in self-management crucial (Blair & Raver, 2015). Studies show that preschoolers who engage in structured activities that promote self-regulation—such as cooperative games, mindfulness exercises, and storytelling with social-emotional themes—demonstrate greater ability to follow directions, transition smoothly between tasks, and engage productively in classroom learning (Diamond & Lee, 2011). By fostering these skills early, educators help children develop a sense of independence and resilience, which in turn reduces behavioral issues and enhances their ability to focus on learning experiences.

Beyond immediate classroom benefits, behavioral self-management has long-term implications for children's success in school and life. Research has linked strong early self-regulation skills to higher achievement in literacy and mathematics, as children with better impulse control and attention management are more likely to persist through complex problem-solving tasks (Schmitt et al., 2017). Additionally, these skills contribute to positive social relationships, as children who can navigate frustration and delay gratification tend to form stronger peer connections and demonstrate greater empathy (McClelland et al., 2014). High-quality early childhood programs that embed behavioral self-management strategies into daily routines set children up for future academic and personal success.

Evidence Collection

<u>This indicator includes the following key areas:</u>

- *Self-management (in the context of a classroom or group setting)*
    - Activities designed to support listening and attention skills, which often include following instructions (e.g., Simon Says)
    - Guidance for developing rule-following habits by reinforcing classroom expectations, turn-taking, and understanding the consequences of actions
    - Activities that build adaptability and flexibility by helping children adjust to transitions and new environments
    - Routines for supporting children during daily transitions (e.g., 5-minute warnings before ending activities)
    - Materials include strategies for impulse control, which include waiting, taking turns, and making thoughtful choices.

<u>Gathering Evidence for the Cluster Meeting:</u>

- Do the materials include a variety of activities that support listening and attention skills through play and practice?
- Do the materials include guidance for developing rule-following habits by reinforcing classroom expectations and turn-taking?
- Do the materials support children in developing an understanding of the consequences of their actions?
- Do the materials support the development of classroom and child-level routines that facilitate transition and

daily practice?

- Do the materials include support for children to develop adaptability and flexibility?
- Do the materials include opportunities for children to learn and practice strategies for impulse control in a variety of settings?
- Do the materials support children in making thoughtful choices through explicit instruction?

Criterion 2.2	**Social and Emotional Development** Curriculum materials develop knowledge and skills that promote healthy social and emotional development.
Indicator 2.2d	Curriculum materials are designed to support problem-solving and conflict resolution.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include multiple, robust, and varied opportunities for children to engage in peer interaction in unstructured play, structured learning, and cooperative play. • Materials provide robust support, tools, resources, and guidance to help children understand challenges and work through problems collaboratively. • Materials provide robust and explicit teacher guidance along with activities to support conflict resolution and collaborative problem-solving • Materials offer robust and varied opportunities in play and practice for children to identify emotions and understand others' feelings.s • Materials offer robust opportunities to learn and practice vocabulary that supports them in acknowledging others' emotions, expressing empathy, and solving conflicts. • Materials include robust support for educators to offer adaptations based on unique student needs and identities.	• Materials include some opportunities for children to engage in peer interaction in unstructured play, structured learning, and cooperative play. • Materials provide moderate support, tools, resources, and guidance to help children understand challenges and work through problems collaboratively. • Materials provide some teacher guidance along with activities to support conflict resolution and collaborative problem-solving • Materials offer some opportunities in play and practice for children to identify emotions and understand others' feelings. • Materials offer some opportunities to learn and practice vocabulary that supports them in acknowledging others' emotions, expressing empathy, and solving conflicts. • Materials include moderate support for educators to offer adaptations based on unique student needs and identities.	• Materials include limited opportunities for children to engage in peer interaction in unstructured play, structured learning, and cooperative play. • Materials provide limited support, tools, resources, and guidance to help children understand challenges and work through problems collaboratively. • Materials provide limited teacher guidance or activities to support conflict resolution and collaborative problem-solving • Materials offer limited opportunities in play and practice for children to identify emotions and understand others' feelings. • Materials offer limited opportunities to learn and practice vocabulary that supports them in acknowledging others' emotions, expressing empathy, and solving conflicts. • Materials include limited support for educators to offer adaptations based on unique student needs and identities.

Purpose and Research

From an early age, children encounter social challenges that require them to navigate disagreements, share resources, and express their feelings effectively. Pre-K provides a crucial window for teaching problem-solving and conflict resolution skills, as research highlights that young children who engage in structured social-emotional learning show improved peer interactions and reduced behavioral issues (Shure, 2001). Rather than reacting impulsively to conflicts, children who are taught to recognize problems, generate solutions, and evaluate outcomes develop greater self-control and emotional awareness (Denham et al., 2012). Educators who use modeling, storytelling, and guided practice help children internalize strategies for managing frustration and cooperating with others, leading to a more harmonious learning environment.

Long-term studies suggest that early exposure to problem-solving and conflict resolution skills has lasting benefits beyond preschool. Children who practice these skills demonstrate higher emotional intelligence, resilience, and adaptability in both academic and social settings (Bodrova & Leong, 2007). Additionally, engaging in collaborative problem-solving strengthens executive function, which plays a key role in cognitive flexibility, impulse control, and persistence in learning tasks (Diamond & Lee, 2011). Classrooms that incorporate role-playing scenarios and group discussions create an environment where children can experiment with different approaches to resolving conflicts, helping them build the confidence to handle challenges independently. By prioritizing problem-solving and conflict resolution in pre-K, educators lay the groundwork for a generation of thoughtful, empathetic, and resourceful individuals.

Evidence Collection

This indicator includes the following key areas:

- *Problem-Solving:*
  - Materials focus on helping children understand and find solutions to challenges
  - Materials support working through problems collaboratively
- *Conflict Resolution:*
  - Materials teach basic skills to resolve conflicts (e.g., visual aid posters with “I statements” and role-playing scenarios)
  - Materials encourage children to understand and appreciate the feelings and perspectives of others when resolving conflict, fostering empathy and caring behavior.

Gathering Evidence for the Cluster Meeting:

- Are there multiple and varied opportunities for children to engage in peer interaction throughout the day, both in unstructured play and during structured learning opportunities?
- Do the materials support children in developing the skills to understand and find solutions to challenges?
- Do the materials support children in working through problems collaboratively?
- Are there intentional and varied opportunities for children to engage in cooperative play, both with teacher guidance and independently?
- Do the materials include explicit teacher guidance on how to support conflict resolution, and activities that

support exploring and resolving conflict (e.g., dramatic play, storytelling)?

- Do the materials support children in extending their knowledge and ability to identify feelings in order to help them understand and appreciate the feelings of others?
- Are there multiple and varied opportunities for children to practice identifying others' emotions when resolving conflict (e.g., in stories, dramatic play, games, and activities)?
- Do the materials provide children with vocabulary that supports them in acknowledging others' emotions, expressing empathy, and solving conflicts?
- Does the curriculum provide opportunities for educators to offer adaptations based on unique student needs and identities?
- What is the frequency, variety, and balance of engaging opportunities for collaborative problem-solving and conflict resolution?

Criterion 2.3

Language and Literacy Development
Curriculum materials are designed to support students with the development of essential language and literacy skills.

Purpose and Research

Pre-K instructional materials should be designed to support the development of essential language and literacy skills, as early experiences with oral language, print, and phonological awareness contribute significantly to later reading success. The National Early Literacy Panel (NELP, 2008) identified key predictors of literacy achievement, including alphabet knowledge, phonological awareness, writing, and oral language skills. High-quality instructional materials that embed these components into daily learning experiences help children build the necessary skills for reading and writing development. According to Justice, McGinty, Piasta, Kaderavek, and Fan (2010), structured literacy-rich environments that integrate vocabulary instruction, interactive read-alouds, and phonemic awareness activities create strong foundations for early literacy acquisition.

Phonological awareness, alphabet knowledge (knowledge of the shape of the letter, the name of the letter, and at least one sound commonly associated with the letter), and print concepts are essential skills that should be explicitly taught and reinforced in pre-K instructional materials. Research indicates that young children benefit from multimodal approaches that include storytelling, shared reading, singing, and hands-on literacy experiences (Lonigan & Shanahan, 2010). Early literacy interventions that incorporate systematic instruction in phonological awareness and alphabet knowledge have been shown to improve later reading outcomes, particularly for children from diverse linguistic and socioeconomic backgrounds (Wasik & Hindman, 2011). Additionally, structured opportunities for oral language development, such as guided discussions and storytelling activities, support vocabulary growth and comprehension skills (Dickinson, Golinkoff, & Hirsh-Pasek, 2010). High-quality pre-K curricula should integrate these evidence-based strategies to ensure that all children, regardless of background, have access to meaningful literacy learning experiences.

Criterion 2.3	**Language and Literacy Development** Curriculum materials are designed to support students with the development of essential language and literacy skills.
Indicator 2.3a	Curriculum materials are designed to support receptive and expressive language development through rich oral language experiences.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include a robust range of oral language activities to promote expressive language development. • Materials include a robust range of oral language activities to promote receptive language development. • Materials include multiple, well-designed strategies for teachers to develop oral language. • Materials include a robust variety of activities, routines, and structures that support oral language development. • Materials provide multiple rich opportunities to develop oral language in a variety of settings.	• Materials include a moderate range of oral language activities that may help promote expressive language development. • Materials include a moderate range of oral language activities that may help promote receptive language development. • Materials include some strategies for teachers to develop oral language • Materials include a moderate range of activities, routines, and structures that may help support oral language development. • Materials provide a moderate number of opportunities to develop oral language in a variety of settings.	• Materials include a limited range of oral language activities designed to promote expressive language development. • Materials include a limited range of oral language activities designed to promote receptive language development. • Materials include few or no strategies for teachers to develop oral language. • Materials include limited activities, routines, and structures that support oral language development. • Materials provide few opportunities to develop oral language in a variety of settings.

Purpose and Research

Instructional materials designed to support expressive and receptive language skills are essential for fostering effective communication in children. Receptive language (listening and understanding) involves the ability to understand and process spoken or written language, while expressive language (speaking and communicating) pertains to the ability to convey thoughts and ideas verbally or nonverbally. By incorporating activities that enhance both receptive and expressive language abilities, children develop comprehensive language proficiency, which is crucial for their social interactions and academic success. Encouraging children to participate in storytelling or role-playing can bolster their expressive language by providing opportunities to practice sentence formation and vocabulary usage. Well-structured instructional materials play a pivotal role in nurturing receptive and expressive language development in children.

Oral language skills, including listening comprehension and spoken communication, serve as foundational building blocks for later literacy and academic success (Dickinson & Porche, 2011). High-quality instructional materials should intentionally incorporate opportunities for children to engage in meaningful conversations, storytelling, and vocabulary-rich interactions, as these experiences enhance their ability to process and produce language (Wasik & Hindman, 2020). Studies indicate that young children learn best when they are exposed to diverse and sophisticated language in interactive settings, such as during shared reading, open-ended discussions, and guided play (Hirsh-Pasek et al., 2015). These experiences not only expand children's vocabulary and comprehension skills but also strengthen their ability to express thoughts, ask questions, and engage in social interactions.

Receptive language development is closely linked to the frequency and quality of language exposure in early childhood settings. Research suggests that children who engage in environments with rich language input—such as classrooms that emphasize extended conversations, complex sentence structures, and contextualized vocabulary—demonstrate stronger listening comprehension and later reading proficiency (Snow, 2010). Effective instructional materials should provide structured opportunities for teachers to model academic and conversational language, encouraging children to make connections between words and their meanings (Neuman & Wright, 2014). Additionally, strategies such as dialogic reading, where teachers and children actively discuss stories rather than passively listening, have been shown to significantly enhance receptive language skills by promoting engagement and deeper processing of language structures (Mol et al., 2008).

Expressive language development also benefits from intentional and varied oral language experiences. Research highlights that when children are given frequent opportunities to engage in discussions, parallel talk, and self-talk, explain their thinking, and participate in role-playing activities, their ability to use language for communication and self-expression improves (Weisleder & Fernald, 2013). Instructional materials that incorporate structured and unstructured conversational prompts, peer interactions, and teacher-guided discussions support the development of expressive language by reinforcing sentence construction, storytelling abilities, and verbal reasoning skills (Cabell et al., 2015). Furthermore, integrating music and dramatic play into pre-K curricula has been found to strengthen expressive language abilities by encouraging children to experiment with new words and practice verbal communication in engaging and developmentally appropriate ways (Gerde et al., 2012).

Evidence Collection

This indicator includes the following key areas:

- *Receptive language*
  - Materials provide opportunities for children to develop and strengthen receptive language skills, which include attending to and understanding verbal and non-verbal communication.
  - Materials encourage teachers to utilize strategies such as providing explanations (e.g., of words and concepts), self-talk (narrating one's ideas and actions), and parallel talk (narrating another person's actions or ideas)
  - Games or activities that involve listening to language, such as I Spy, Simon Says, and dramatic play with others
- *Expressive language*
  - Materials provide opportunities for children to develop and strengthen expressive language skills, which include the ability to express their needs, wants, and ideas.

    - Activities that encourage speaking and sharing of ideas and thoughts, such as storytelling, role-playing, and discussions
- *Language facilitation*
    - Materials provide opportunities for children to integrate receptive and expressive language through responsive engagement opportunities.
    - Interactive read-alouds and other activities (e.g., science investigations) where children attend to and engage with language, fostering children's learning of a variety of words, concepts, and vocabulary
    - Materials encourage teachers to engage in scaffolded and responsive interactions during conversations with children, such as contingent responding, turn-taking, giving wait time, and asking open and closed-ended questions.
    - Materials encourage teachers to engage in extended conversations (a series of back-and-forth turns on the same topic)

<u>Gathering Evidence for the Calibration Meeting:</u>

- Do the materials include intentional oral language activities designed to promote expressive language development through a variety of speaking experiences?
- Do the materials include intentional oral language activities designed to promote receptive language development through a variety of listening experiences?
- Do the materials include strategies for teachers to develop oral language, such as narration, parallel talk, and responsive interactions?
- Do the materials include a variety of activities and materials that support oral language development, including read-alouds, games, and other collaborative experiences?
- Do the materials include examples of routines and structures that can support oral language development (e.g., songs, stories, question stems, naming activities)?
- What is the frequency and variety of engaging opportunities for children to build and advance oral language development?
- Do the materials provide meaningful and rich opportunities to develop oral language in a variety of settings?

Criterion 2.3	**Language and Literacy Development** Curriculum materials are designed to support students with the development of essential language and literacy skills.
Indicator 2.3b	Curriculum materials provide intentional opportunities to engage with common, academic, and content-specific vocabulary words and related concepts.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials clearly identify and consistently embed vocabulary words across units and lessons that children are expected to learn. • Materials provide a child-friendly explanation of new words. • Materials provide robust opportunities for children to incorporate new vocabulary into conversations, discussions, and everyday routines and experiences. • Materials provide robust and varied nonverbal tools to support vocabulary learning. • Materials provide children with opportunities to explore relationships among and between words. • Materials provide intentional, structured, and varied opportunities to foster and practice common, academic, and content-specific vocabulary development.	• Materials identify and embed vocabulary words across some units and lessons that children are expected to learn. • Materials inconsistently provide a child-friendly explanation of new words • Materials provide some opportunities for children to incorporate new vocabulary into conversations, discussions, and everyday routines and experiences. • Materials provide some nonverbal tools to support vocabulary learning • Materials provide children with some opportunities to explore relationships among and between words. • Materials provide some intentional, structured, and varied opportunities to foster and practice common, academic, and content-specific vocabulary development.	• Materials do not clearly identify or consistently embed vocabulary words across units and lessons that children are expected to learn. • Materials rarely provide a child-friendly explanation of new words. • Materials provide few opportunities for children to incorporate new vocabulary into conversations, discussions, and everyday routines and experiences. • Materials provide few nonverbal tools to support vocabulary learning • Materials provide children with limited opportunities to explore relationships among and between words. • Materials provide few or unstructured opportunities to foster and practice common, academic, and content-specific vocabulary development.

Purpose and Research

Vocabulary development in early childhood forms the foundation for oral language skills, literacy, and overall

cognitive growth, making it essential for pre-K curricula to systematically introduce and reinforce vocabulary in meaningful contexts (National Early Literacy Panel [NELP], 2008). Studies show that children benefit most when instructional materials incorporate direct vocabulary instruction, exposure to sophisticated language, and repeated opportunities to use new words in different settings (Beck, McKeown, & Kucan, 2013). By embedding vocabulary-rich experiences into daily instruction, educators can support language development in a way that fosters both comprehension and expressive communication.

Common vocabulary words, which include words frequently used in everyday language, provide the basis for conversational speech and social interactions. These words are necessary for children to engage in discussions, follow directions, and express their thoughts effectively. However, research emphasizes that pre-K children also need exposure to academic and content-specific vocabulary, as these words contribute to their ability to understand complex texts and engage in subject-specific learning (Neuman & Wright, 2014). Academic vocabulary consists of words that are essential for understanding school-based instruction, such as "compare," "observe," and "explain," while content-specific vocabulary includes terms related to subjects like math, science, and social studies. Studies have found that young children exposed to rich, diverse vocabulary through interactive read-alouds, hands-on learning experiences, and guided discussions develop stronger oral language skills and are better prepared for future literacy instruction (Wasik & Iannone-Campbell, 2012).

To effectively support vocabulary acquisition, instructional materials should integrate explicit vocabulary instruction with meaningful, interactive experiences. Research suggests that strategies such as dialogic reading, in which educators encourage children to engage in discussions about books, and content instruction, where vocabulary is introduced within the context of science, math, or social studies, are highly effective in supporting word learning (Marulis & Neuman, 2013). Furthermore, repeated exposure to vocabulary words across different activities and settings reinforces learning and deepens understanding (Coyne, McCoach, & Kapp, 2007).

Evidence Collection

This indicator includes the following key areas:

- *Conversational speech vocabulary*
  - Activities provide guidance on incorporating rich, descriptive vocabulary in everyday conversations with children.
  - Activities include ample opportunities for children to use a variety of words (e.g., in discussions, expressing ideas, and sharing their personal connections to content)
  - Materials give children opportunities to learn and use various parts of speech.
- *Academic and content-specific vocabulary*
  - Activities encourage teachers and children to integrate new vocabulary into everyday routines and experiences.
  - Activities focus on using nonverbal tools to support vocabulary learning, such as gestures, movement, photos, videos, and/or real objects.
  - Activities give children opportunities to explore relationships between and among words, such as categorizing words or objects (e.g., a hammer and a drill are tools)
- *Explicit vocabulary instruction*
  - Materials provide guidance on how to explicitly introduce and foster children's learning of a variety

of words.
    - Materials provide structured vocabulary activities, giving children repeated opportunities to hear, use, and apply vocabulary.
    - Materials include activities for children to use new vocabulary (e.g., games, word sorts, journaling)

Gathering Evidence for the Calibration Meeting:

- Do the materials provide a specific set of vocabulary words children are expected to learn by the end of Pre-K?
- Do materials provide a child-friendly explanation of new vocabulary words, avoiding words that children do not know?
- Do the materials provide robust opportunities for incorporating conversational vocabulary, including giving children opportunities to use a variety of words and parts of speech?
- Do the materials provide opportunities to incorporate new vocabulary into everyday routines and experiences?
- Do the materials provide nonverbal tools to support vocabulary learning, including gestures, movement, photos, videos, and objects?
- Do the materials provide children with opportunities to explore relationships among and between words?
- Do the materials include intentional and structured activities designed to foster vocabulary development, including repetition of vocabulary words over time?
- Are there varied and meaningful opportunities to practice common, academic, and content-specific words in practice and play, across a variety of contexts?

Criterion 2.3	**Language and Literacy Development** Curriculum materials are designed to support students with the development of essential language and literacy skills.
Indicator 2.3c	Curriculum materials are designed to support children in recognizing and manipulating sounds and words in spoken language.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust, frequent, and varied activities to support students in developing phonemic awareness, including orally *and* with letters. • Materials include robust, frequent, and varied activities designed to support students in developing phonological awareness. • Materials include engaging and interactive opportunities to play and practice to support the development of phonological and phonemic awareness. • Materials include meaningful and rich opportunities for children to practice playing with and manipulating sounds, words, and language, including through writing.	• Materials include some activities to support students in developing phonemic awareness, including oral and written activities with letters. • Materials include some activities designed to support students in developing phonological awareness, • Materials include few opportunities to play and practice to support the development of phonological and phonemic awareness. • Materials include some opportunities, including through writing, for children to practice playing with and manipulating sounds, words, and language.	• Materials include limited or low-quality activities to support students in developing phonemic awareness. • Materials include limited or low-quality activities designed to support students in developing phonological awareness. • Materials include infrequent or poor-quality opportunities to play and practice that support the development of phonological and phonemic awareness. • Materials include few opportunities, including through writing, for children to practice playing with and manipulating sounds, words, and language.

Purpose and Research

Phonological awareness, which includes recognizing syllables, rhyming words, and breaking words into individual sounds (phonemes), plays a crucial role in helping children develop early literacy skills (National Early Literacy Panel, 2008). Instructional materials that provide systematic, explicit instruction in these skills help children develop a strong foundation for decoding and word recognition when they begin reading (Lonigan, Schatschneider, & Westberg, 2008). Research emphasizes that young children benefit from engaging in hands-on activities that allow them to explore language playfully, such as clapping syllables, identifying rhymes, and blending or segmenting

sounds (Anthony & Francis, 2005).

Research supports the idea that phonemic awareness should be taught using letters, as it helps bridge the gap between phonological processing and orthographic representation, enhancing literacy development. Studies have shown that connecting sounds to letters (graphemes) facilitates stronger letter-sound associations and promotes early reading skills (Ehri, 2005). The National Reading Panel (2000) concluded that teaching children to manipulate phonemes with letters is more effective than limiting manipulation to spoken units. Additional research and meta-analyses continue to affirm this finding (Ehri, Nunes, Willows, Valeska Schuster, Yaghoub-Zadeh, & Shanahan, 2011; Rehfeld, Kirkpatrick, O'Guinn, & Renbarger, 2022)

Effective instructional materials should integrate multiple opportunities for children to practice sound and word manipulation through structured activities, songs, and interactive read-alouds (Phillips, Menchetti, & Lonigan, 2008). Additionally, research suggests that embedding phonological awareness activities within a language-rich curriculum enhances children's ability to recognize speech patterns and improves their overall language comprehension (Gillon, 2004). Studies indicate that children who develop strong phonological awareness skills in pre-K are more likely to become proficient readers by third grade, highlighting the importance of early instruction in this area (Melby-Lervåg, Lyster, & Hulme, 2012).

Evidence Collection

This indicator includes the following key areas:

- *Phonological awareness, the ability to recognize and manipulate sounds and words in spoken language, includes the following skills:*
    - Word awareness is the understanding that sentences are made up of words
    - Syllable awareness is the understanding that words are made up of syllables
    - Onset-rime manipulation, dividing a syllable by its onset (initial consonant, digraph, or blend) and rime (vowel and subsequent consonants)
    - Phonemic awareness, the most complex level of phonological awareness, is the ability to recognize and manipulate the individual sounds (phonemes) within words, which includes the following activities:
        - Isolate initial, final, and middle sounds in words (the word "cat" has 3 phonemes, /c/, /a/, /t/)
        - Segment the initial, final, and middle sounds in words (the initial phoneme of "cat" is /c/)
        - Blend sounds into words (the sounds /c/, /a/, /t/ can be blended to make "cat")
        - Manipulate phonemes by removing, adding, and substituting sounds (the /c/ in "cat" can be removed to make the word "at")
- *Phonological awareness and phonemic awareness practice*
    - Songs, books, and fingerplays that practice alliteration and rhyme
    - Using puppets or manipulatives to engage in word or sound manipulation
    - Movement activities that invite children to stomp or clap out syllables or words in a sentence
    - Opportunities to incorporate phonological awareness during transition times (e.g., line up if your name starts with /t/)

Gathering Evidence for the Calibration Meeting:

- Do the materials include activities designed to support students in developing phonemic awareness (e.g., isolating, blending, segmenting, and manipulating sounds)?
- Do the materials include activities designed to support students in developing phonological awareness (e.g., word awareness, syllable awareness, onset-rime)?
- Are there opportunities for engaging and interactive play and practice to develop phonological awareness, including phonemic awareness?
- Do the materials include examples of routines and structures that can support phonological and phonemic awareness?
- Does the curriculum include meaningful and rich opportunities for children to practice playing with sounds, words, and language, including through writing?
- What is the frequency and variety of engaging opportunities for developing phonological and phonemic awareness, including orally *and* with letters?

Criterion 2.3	**Language and Literacy Development** Curriculum materials are designed to support students with the development of essential language and literacy skills.
Indicator 2.3d	Curriculum materials are designed to support the development of alphabet knowledge and concepts of print.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust, frequent, and varied reading and writing activities to support students in developing alphabet knowledge. • Materials include robust, frequent, and varied activities designed to support students in developing an understanding of concepts of print. • Materials include engaging and interactive opportunities to play and practice to support developing alphabet knowledge and concepts of print. • Materials include routines and structures that support students in developing alphabet knowledge and concepts of print.	• Materials include some reading and writing activities to support students in developing alphabet knowledge. • Materials include some activities designed to support students in developing an understanding of concepts of print. • Materials include some opportunities to play and practice to support developing alphabet knowledge and concepts of print. • Materials include some routines and structures that support students in developing alphabet knowledge and concepts of print.	• Materials include limited or low-quality activities to support students in developing alphabet knowledge. • Materials include limited or low-quality activities designed to support students in developing an understanding of concepts of print. • Materials include infrequent or poor-quality opportunities to play and practice that support developing alphabet knowledge and concepts of print. • Materials do not include routines and structures that support students in developing alphabet knowledge and concepts of print.

Purpose and Research

Research strongly supports the idea that pre-K instructional materials should help students recognize sound-symbol relationships, understand the alphabetic principle, and develop concepts of print, as these literacy skills are essential for future reading success. The alphabetic principle—the understanding that letters represent sounds and that these sounds form words—is a critical component of early reading development (Ehri, 2005). Instructional materials that explicitly teach letter-sound relationships through engaging activities help children establish the connections necessary for decoding and word recognition (Piasta & Wagner, 2010). Additionally, phonics instruction embedded within meaningful literacy experiences, such as shared reading and writing activities, strengthens

children's ability to connect spoken and written language (NELP, 2008).

Concepts of print, including understanding how books function, recognizing that print carries meaning, and knowing how to track words from left to right, are equally important for emergent literacy. Research indicates that children who are exposed to print-rich environments and receive explicit instruction in these concepts demonstrate stronger early literacy skills and are better prepared for formal reading instruction in kindergarten (Justice & Ezell, 2004). Effective instructional materials should incorporate interactive read-alouds, alphabet activities, and hands-on opportunities for children to manipulate letters and words, reinforcing their understanding of print conventions (Lonigan & Shanahan, 2010). By providing structured, research-based approaches to teaching sound-symbol relationships, the alphabetic principle, and concepts of print, pre-K instructional materials can lay the groundwork for children's reading and writing development, ensuring a smooth transition to formal literacy instruction.

Evidence Collection

Alphabet knowledge and concepts of print include the following key areas:

- *Alphabet knowledge, recognizing and naming letters, and associating them with their sounds*
    - Activities that teach letter names and sounds using mnemonics simultaneously during brief, explicit instruction
    - Opportunities for small group, individualized lessons that target children's various levels of knowledge and skill
    - Activities where children recognize letters or put them in order
    - Games that give children opportunities to identify or match letters and sounds, such as bingo or sorting objects into the correct cup labeled with letters
    - Activities that support children in understanding and applying the alphabetic principle, such as emergent writing
- *Concepts of Print, understanding the function, rules, and conventions of written language*
    - Activities with print that draw attention to the understanding that print holds meaning, how letters and words are structured, and spacing
    - Activities that draw attention to the structures and conventions, such as back and front, directionality, and page order
    - Opportunities to attend to concepts of print during routine read-aloud, shared reading, and writing experiences.

Gathering Evidence for the Calibration Meeting:

- Do the materials include structured activities designed to support students in developing alphabet knowledge?
- Are there activities that explicitly teach letter names and sounds together?
- Do the activities use mnemonics, visuals, or gestures to reinforce learning?
- How do the materials support differentiated instruction in alphabet knowledge?
- Do the materials include structured activities designed to support students in understanding concepts of print?
- Are there engaging and interactive opportunities for both play and practice to develop an understanding of

alphabet knowledge and concepts of print?

- Do the materials include examples of routines and structures that can support students in developing an understanding of alphabet knowledge and concepts of print?
- Are there activities that focus on letter and word structure, and spacing?
- Are there shared reading/writing experiences where the teacher models concepts of print?
- Does the curriculum include meaningful and rich opportunities for children to practice playing with the connections between letters and sounds, as well as concepts of print?
- What is the frequency and variety of engaging opportunities for developing alphabet knowledge and concepts of print?

Criterion 2.3	**Language and Literacy Development** Curriculum materials are designed to support students with the development of essential language and literacy skills.
Indicator 2.3e	Curriculum materials support children's comprehension and understanding through a variety of high-quality texts and genres.

Scoring:

Meets Expectations Language and Literacy Skills • Materials include many varied opportunities for children to engage with a robust range of high-quality texts. • Materials provide teachers with support in modeling, guiding, and instructing comprehension skills and strategies. • Materials support children in developing an understanding of fiction texts and narrative structure. • Materials support children in developing an understanding of non-fiction texts, organizational structure, and key text features. • Materials include robust and varied read-aloud opportunities across content areas. • Materials include a broad range of inclusive, relevant, and culturally responsive texts and support teachers in selecting additional texts.	**Partially Meets Expectations** Language and Literacy Skills • Materials include some opportunities for children to engage with high-quality texts. • Materials provide teachers with moderate support in modeling, guiding, and instructing comprehension skills and strategies. • Materials provide children with moderate support in developing an understanding of fiction texts and narrative structure. • Materials provide children with moderate support in developing an understanding of non-fiction texts, organizational structure, and key text features. • Materials include some read-aloud opportunities across content areas • Materials include a moderate range of inclusive, relevant, and culturally responsive texts and provide teachers with some support in selecting additional texts.	**Does Not Meet Expectations** Language and Literacy Skills • Materials include few opportunities for children to engage with a robust range of high-quality texts. • Materials provide teachers with limited support in modeling, guiding, and instructing comprehension skills and strategies. • Materials provide children with limited support in developing an understanding of fiction texts and narrative structure. • Materials provide children with limited support in developing an understanding of non-fiction texts, organizational structure, and key text features. • Materials lack robust and varied read-aloud opportunities across content areas. • Materials include a limited range of inclusive, relevant, and culturally responsive texts and do not support teachers in selecting additional texts.
Meets Expectations High-Quality Texts	**Partially Meets Expectations** High-Quality Texts	**Does Not Meet Expectations** High-Quality Texts

• The texts included appear to be appropriate for preschool-age children. • The texts are inclusive of a broad and robust range of text genres. • The texts address a wide range of domains and topics. • The texts are by authors and illustrators from a variety of backgrounds and experiences. • The texts are reflective of many abilities/disabilities, cultural backgrounds, ages, geographic locations, family structures, gender roles, and interests. • The texts include robust and age-appropriate vocabulary. • The texts appear to be consistently of high quality.	• The texts included appear to be largely appropriate for preschool-age children, though some appear too advanced or overly simple. • The texts are inclusive of a modest range of text genres, though some do not appear to be represented. • Texts address some domains and topics, but many cover the same topics or lack range. • The texts are by authors and illustrators from somewhat varied backgrounds and experiences. • The texts are somewhat reflective of abilities/disabilities, cultural backgrounds, ages, geographic locations, family structures and gender roles, and interests, but may not be sufficiently diverse. • The texts include some robust and age-appropriate vocabulary, but the inclusion of vocabulary is not consistent. • Some texts appear to be high-quality, with others lacking.	• The texts do not appear to be appropriate for preschool-age children. • Texts are not inclusive of a broad and robust range of text genres. • The texts address very few domains and topics. • The texts are by authors and illustrators from limited backgrounds and experiences. • The texts are reflective of few abilities/disabilities, cultural backgrounds, ages, geographic locations, family structures, gender roles, and interests. • The texts lack robust or age-appropriate vocabulary. • The texts generally do not appear to be high-quality.

Purpose and Research

Young children benefit from explicit instruction and exposure to various genres, such as narrative and informational texts, which help them recognize patterns in language and meaning (Duke & Roberts, 2010). Understanding text structure enhances children's ability to predict, retell, and engage with stories, fostering deeper comprehension skills that will support later reading development (Paris & Paris, 2003). Instructional materials that incorporate activities such as guided story discussions, sequencing exercises, and shared reading experiences provide children with the necessary tools to analyze and organize information within texts (Neuman & Wright, 2014).

In addition to narrative comprehension, pre-K instructional materials should introduce young learners to informational texts, as early exposure to nonfiction materials has been linked to improved vocabulary development and knowledge acquisition (Duke & Carlisle, 2011). Studies suggest that pre-K students who engage with a variety of genres develop a stronger awareness of how language is used to convey meaning across different contexts

(Montag, Jones, & Smith, 2015). Effective instructional strategies, such as interactive read-alouds and attention to text structure, help children make connections between spoken and written language, reinforcing their ability to comprehend and recall key details from texts (Beck & McKeown, 2007; McDonald Connor, Phillips, Kaschak, Apel, Kim, Al Otaiba, Crowe, Thomas-Tate, Cooper Johnson, & Lonigan, 2014)).

Evidence Collection

This indicator includes the following key areas:

- *Content knowledge*
  - Materials include interactive opportunities for read-alouds that develop children's understanding of the natural and social world (e.g., reading about a volcanic eruption, learning about a different culture)
  - Materials support connections between read-alouds and hands-on experiences (e.g., reading about growing plants and growing plants in the classroom)
- *Genre knowledge*
  - Materials provide interactive experiences with and understanding of a variety of types of oral language (e.g., storytelling, songs)
  - Materials provide interactive experiences with and understanding of a variety of types of written language (e.g., nonfiction narrative, fictional narrative, informational texts, how-to/procedural texts, lists)
  - Teaching story elements (e.g., characters, problem)
  - Teaching ways authors convey information in informational text (e.g., through illustrations, headings, comparing and contrasting)
- *Cognitive skills for making sense of text*
  - Materials include interactive read-aloud opportunities in which children have the opportunity to ask and answer questions, make comments, listen to the comments of the teacher and peers before, during, and after reading
  - Materials provide teachers with suggested scaffolds or scripts to promote children's understanding (e.g., offering two potential predictions for children to choose from about the text, introducing and defining specific vocabulary)
  - Materials include read-aloud opportunities that guide the teacher to model and invite children to engage in sense-making, including:
    - Making predictions and inferences
    - Identifying story elements (e.g., characters, setting, events)
    - Recognizing the pattern or organization of the text
    - Retelling the story or summarizing the text
    - Making connections between the text and other texts and experiences
  - Materials include opportunities to reread some texts at a later time to deepen comprehension and memory for text vocabulary and/or content.

Gathering Evidence for the Calibration Meeting:

- Do materials include opportunities for children to engage with a variety of diverse high-quality texts?
- Do materials support teachers in modeling, guiding, and instructing comprehension skills and strategies?
- Do materials support children in developing an understanding of fiction texts and narrative structure?
- Do materials support children in developing an understanding of non-fiction texts, organizational structure, and key text features?
- Do materials include read-aloud opportunities across content areas, leveraging a range of text types?
- Do materials include a broad range of inclusive, relevant, and culturally responsive texts or text suggestions, as well as supporting teachers in the selection of additional texts?

- *High-quality engaging texts:*
    - Identified as appropriate for preschool-age children, including being more complex than books appropriate for toddler-age children.
    - Inclusive of a range of text genres (e.g., nonfiction narrative, fictional narrative, informational texts)
    - Address many different domains of learning (e.g., music, mathematics, social studies, science) and a wide range of topics from preschool standards.
    - Are by authors and illustrators of many different backgrounds
    - Are reflective of many abilities and disabilities, cultural backgrounds, ages, geographic locations (e.g., urban and rural, different countries), family structures, and interests
    - Include robust vocabulary

Gathering Evidence for the Calibration Meeting:

To determine the quality of the texts included in the curriculum, please use the following two resources:

- Please review the *Pre-K Publisher Text Information document* for your assigned curriculum (linked in the training for this indicator). This will provide a comprehensive understanding of the types of texts included, their genre, and some key elements of the story or text elements.
- Additionally, please make a random selection of 5 texts from the curriculum. For those, please complete the *Pre-K Reviewer Text Sample documen*t (found in your evidence collection folder). This document is intended to provide a more comprehensive review of a small segment of texts. Note that if you find a misalignment between your observations of the text and the publisher's description, you should reach out to your EdReport contact.

Evidence from these two resources should guide your scoring. The questions below are intended to help guide your thinking further:

- Do the texts included appear to be appropriate for preschool-age children?
- Are the texts inclusive of a range of text genres?
- Do the texts address a wide range of domains and topics?
- Are the texts by authors and illustrators from a variety of backgrounds?
- Are the texts reflective of many abilities/disabilities, cultural backgrounds, ages, geographic locations, family structures, gender roles, and interests?
- Do the texts include robust, age-appropriate vocabulary?

- Do the texts appear to be high quality overall?

Criterion 2.3	**Language and Literacy Development** Curriculum materials are designed to support students with the development of essential language and literacy skills.
Indicator 2.3f	Curriculum materials support children's expression of ideas through drawing and writing, including opportunities for composition, emergent spelling, and handwriting development.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials support children in understanding the role of various types of writing for communication. • Materials provide a range of high-quality, structured activities that promote developmental writing skills through modeled writing, interactive writing, and scaffolded writing. • Materials include robust teacher guidance encouraging meaningful discussion of student compositions. • Materials include meaningful, relevant, and robust activities to support self-expression through drawing and pre-writing activities in a variety of settings. • Materials include a range of robust activities to develop student understanding of writing composition and emergent spelling. • Materials include robust routines, structures, resources, and tools that support early writing development, including drawing, name writing, and clear guidance for letter formation, through both instruction and play.	• Materials provide some support in understanding the role of various types of writing for communication. • Materials provide some structured activities designed to promote developmental writing skills through modeled writing, interactive writing, and scaffolded writing. • Materials include moderate teacher guidance encouraging meaningful discussion of student compositions. • Materials include a range of activities to support self-expression through drawing and pre-writing activities in a variety of settings, though they may lack meaning, relevancy, or quality. • Materials include some activities to develop students' understanding of writing composition and spelling, but they may lack variety or quality. • Materials include some routines, structures, resources, and tools that support early writing development, including drawing, name writing, and clear guidance for letter formation, through both instruction and play.	• Materials do not support children in understanding the role of various types of writing for communication. • Materials do not promote developmental writing skills through modeled writing, interactive writing, and scaffolded writing. • Materials do not include teacher guidance encouraging meaningful discussion of student compositions. • Materials do not include activities to support self-expression through drawing and pre-writing activities in a variety of settings. • Materials do not support student understanding of writing composition and spelling. • Materials do not include routines, structures, resources, and tools that support early writing development.

Purpose and Research

Young children develop emergent writing skills through a combination of fine motor development, exposure to print, and opportunities to experiment with written expression (Rowe & Weisberg, 2018). Drawing and early writing activities help children make connections between spoken and written language, reinforcing their understanding of how print conveys meaning (Puranik & Lonigan, 2011). Instructional materials that encourage children to engage in composition, spelling, and handwriting activities provide essential practice in literacy development while fostering creativity and communication skills (Hall, Simpson, Gua, & Wang, 2015).

Incorporating structured writing experiences into pre-K curricula has been shown to enhance children's phonological awareness, alphabet knowledge, and understanding of print conventions. Research suggests that providing young learners with opportunities to engage in invented spelling and early composition activities helps them develop an awareness of letter-sound relationships and strengthens their ability to decode words (Puranik, Lonigan, & Kim, 2011). Additionally, handwriting instruction that includes fine motor skill development and letter formation practice supports both cognitive and physical aspects of writing, leading to improved literacy outcomes in later years (Dinehart & Manfra, 2013). Effective instructional materials should integrate drawing, storytelling, and scaffolded writing experiences to encourage children to express their thoughts in meaningful ways while developing foundational writing skills.

Evidence Collection

Writing development includes the following key areas:

- *Purpose of writing*
  - Materials support the understanding that writing is communication
  - Materials foster children's learning of a variety of types of writing (e.g., lists, stories, information)

- *Composition*
  - Materials support the creation of a dedicated writing area available during free play and/or learning centers.
  - Materials include regular opportunities for modeled writing, interactive writing, and scaffolded writing connected to children's learning and interests.
  - Materials encourage children to express and record their ideas, information, and stories throughout the day through informal writing opportunities.
  - Materials suggest ways to include words from children's home languages in writing.
  - Materials provide language to talk with children about their compositions.

- *Emergent Spelling*
  - Materials provide opportunities for the teacher to model listening for sounds in words and representing them in writing.
  - Materials capitalize on children's natural interest in learning to write their own names.
  - Materials call for scaffolding children's writing, including their representation of sounds in words, to support their progression in stages of writing development.

- *Handwriting*
    - Materials offer a range of writing tools and writing surfaces that include, but are not limited to, paper and pencil practice. These materials support children's fine motor development and understanding of the forms that commonly appear in letters and numbers, such as straight lines and curved lines.
    - Materials include clear and consistent guidance for the formation of uppercase and lowercase letters and numerals.
    - Materials provide opportunities for students to practice pre-writing strokes and name writing.

Gathering Evidence for the Calibration Meeting:

- Do the materials support children in understanding the role of various types of writing in communication?
- Do the materials include structured activities designed to promote the development of developmental writing skills through modeled writing, interactive writing, and shared writing?
- Do the materials include guidance for teachers to support children through discussions about their compositions, including integration of children's home language?
- Do the materials include meaningful, relevant, and rich activities designed to support students in self-expression through drawing and pre-writing activities in a variety of settings (e.g., free play, learning centers, other content areas)?
- Do the materials include activities designed to support students in developing a developmentally-appropriate understanding of writing composition and emergent spelling?
- Are there opportunities for both engaging and interactive play and experience to develop early drawing and writing skills?
- Do the materials include examples of routines and structures that can support early writing skills (e.g., writing center, child writing their name for daily sign-in, etc.)?
- Do materials include engaging and meaningful resources and activities that support children in drawing, pre-writing strokes, and name writing?

Criterion 2.4

Mathematics
Curriculum materials develop knowledge and skills that promote mathematical thinking.

Purpose and Research

Developing mathematical thinking in young children is essential for their cognitive growth and long-term academic success. Research has shown that early mathematical knowledge is one of the strongest predictors of later achievement in both math and literacy. A longitudinal study by Duncan et al. (2007) found that early math skills at school entry were more predictive of later academic success than early reading or attention skills, highlighting the importance of fostering mathematical thinking from an early age. Research is clear that high-quality early math develops children's mathematics ideas and skills, which are important in our world, and spurs the development of other critical domains. Early math, including what children learn during pre-K through primary, is important to all of school...and life, predicting school success, high-school graduation, college entry, and even income in middle age (Clements & Sarama, 2021; Dierkx et al., 2025; Liu et al., 2025). 94% of adults report using math in their work–all jobs (Siegler, 2022). Additionally, Watts et al. (2014) found that strong mathematics skills, as well as strong growth, in preschool predict higher math achievement in elementary and middle school. This underscores the importance of incorporating high-quality early math instruction into pre-K curricula to ensure that children are well-prepared for more complex mathematical concepts in later grades.

By engaging in mathematical activities such as counting, comparing, and ordering, children build a conceptual understanding of counting, numerical relations, and operations, which strengthens their problem-solving and logical reasoning abilities (Clements & Sarama, 2011, in press). Hands-on, playful learning is an effective way to introduce young children to mathematical concepts. Research emphasizes that children learn best through a variety of experiences, from exploration in activities such as block building, puzzles, and measuring, to games, to intentional teaching in whole and small group lessons. Play-based experiences help children develop an intuitive foundation for mathematical principles, such as number sense, spatial awareness, and patterns (Ginsburg et al., 2008; Sarama & Clements, 2025). Interactions with teachers in those activities, and in structured lessons, help children build explicit concepts and skills in those topics and comparison of numbers, arithmetic, and measurement (Bognar et al., 2025; Clements et al., 2023; Sarama & Clements, 2025).

Further high-quality mathematical experiences help children develop in other domains, from subject matter (e.g., literacy, language, science; Doabler et al., 2024; McGraw et al., 2019; Sarama et al., 2012), executive function–working memory, cognitive flexibility, response inhibition (Clements et al., 2016; Clements et al., 2020); Schmitt et al., 2019), and other general cognitive abilities (Zacharopoulos et al., 2021, with older students). They also promote socio-emotional competencies such as sharing (Chernyak et al., 2022; Caemmerer & Hajovsky, 2022) and even creativity (Herdiana et al., 2023; Nairo et al., 2025).

Key to all high-quality educational experiences is the asset-based approach of building on what children know and can do, along developmental paths consistent with children's thinking and learning (Clements et al., 2023; National Research Council, 2009). Children differ (Weiland et al., 2023); therefore, using *formative assessment along learning trajectories is essential* to high-quality teaching (Attaway et al., 2025; Bognar et al., 2025; Clements et al., 2023; Clements & Sarama, 2024).

Additionally, it is important to note that the Mathematical Process Standards (NCTM, 2000) are essential in guiding teaching and learning of mathematics. The standards include the following components:

- Problem Solving: The ability to tackle routine and non-routine problems, model real-world situations, and apply various mathematical strategies.
- Reasoning and Proof: Developing logical reasoning and the ability to make and justify mathematical arguments.
- Communication: Expressing mathematical ideas clearly and effectively, both in writing and orally.
- Connections: Recognizing and understanding the connections between different areas of mathematics and real-world applications.
- Representation: Using various forms of representation (e.g., graphs, tables, equations) to express and analyze mathematical concepts.

The process standards should be integrated and embedded throughout mathematical content areas.

Criterion 2.4	**Mathematics** Curriculum materials develop knowledge and skills that promote mathematical thinking.
Indicator 2.4a	Curriculum materials are designed to support development in numbers and counting.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust, varied, structured, and sequenced activities and instructional guides to promote an understanding of numbers, counting, and perceptual subitizing. • Materials include robust and authentic opportunities for children to apply and gradually advance mathematical knowledge related to numbers, counting, and perceptual subitizing through play and structured activities. • Materials contain robust, varied activities (and teacher guidance) that teach mathematical words, vocabulary, and corresponding gestures related to numbers, counting, and perceptual subitizing. • Materials provide meaningful and robust opportunities to connect content to real-world contexts.	• Materials include some structured and sequenced activities and instructional guides to promote an understanding of numbers, counting, and perceptual subitizing. • Materials include some opportunities for children to apply and gradually advance mathematical knowledge related to numbers, counting, and perceptual subitizing through play and structured activities. • Materials contain some activities that teach mathematical words, vocabulary, and corresponding gestures related to numbers, counting, and perceptual subitizing. • Materials provide some opportunities to connect content to real-world contexts.	• Materials include few or poor-quality activities and instructional guides to promote an understanding of numbers, counting, and perceptual subitizing. • Materials include few or poor-quality opportunities for children to apply and gradually advance mathematical knowledge related to numbers, counting, and perceptual subitizing through play and structured activities. • Materials contain few or poor-quality activities that teach mathematical words, vocabulary, and corresponding gestures related to numbers, counting, and perceptual subitizing. • Materials provide limited opportunities to connect content to real-world contexts.

Purpose and Research

Developing foundational mathematics principles, particularly numeracy and counting, in pre-K children is essential for their cognitive and academic growth. Research has shown that early numeracy, or a child's ability to understand numbers and their relationships, is a strong predictor of future math achievement. Nguyen, Watts, Duncan, Clements, Sarama, Wolfe, & Spitler (2016) found that preschoolers with strong numeracy skills performed significantly better in math during elementary school. Curricula that have an intentional focus on foundational

mathematics concepts in preschool have demonstrated short and long-term impacts on children's mathematics success (Clements & Sarama, 2008; Klein & Starkey, 2004; Watts, Duncan, Clements, & Sarama, 2018).

Children's early numeracy develops across four interrelated domains: subitizing (quantifying groups without counting), Clements et al., 2019) counting, numerical relations, and arithmetic operations. Number skills involve both connecting numerals to their respective names and their respective quantities. Both of these connections are necessary for the transition from informal to formal skills (Purpura, Baroody, & Lonigan, 2013). Counting competencies involve mastering the verbal counting sequence (knowing the ordered list of number words), applying one-to-one correspondence (assigning exactly one number word to each object), understanding cardinality (recognizing that the final number named represents the total quantity of the set), and learning to use counting strategies to solve problems (Clements & Sarama, in press; Fuson, 1988; Gelman & Gallistel, 1978; Jordan, Purpura, & Lonigan, 2007; LeFevre et al., 2009). Numerical relations encompass children's ability to compare quantities and numerical sets (understanding "more," "less," or "equal"), and to build an understanding of number magnitude and spatial representation along a number line (Aunio & Niemivirta, 2010; Goffin & Ansari, 2016; Purpura & Lonigan, 2013). Finally, arithmetic operations involve understanding addition and subtraction as meaningful transformations of quantities—such as composing and decomposing sets, understanding change situations, and relational additive comparisons (National Research Council, 2009; LeFevre et al., 2009). Together, these domains form the foundation upon which formal mathematical reasoning and success are built.

Evidence Collection

This indicator includes the following key areas:

- Subitizing *(perceptual)*
  - Activities that support children in subitizing (e.g., looking at 5 counting bears and identifying the quantity without counting)
  - Activities support children in subitizing both visual (e.g. dice), kinesthetic (e.g. finger patterns), and temporal (e.g. how many bell tolls)
- Counting
  - Activities that support children in developing an understanding of verbal number sequences (e.g., knowing the number names in a sequence)
  - Activities that support children's understanding of one-to-one correspondence (connecting each number word to one object)
  - Activities that support children in developing cardinal number knowledge
  - Activities that support children using increasingly sophisticated strategies to solve problems
- Numbers and Numerals
  - Activities that support children in connecting numerals to their respective names and quantities

Gathering evidence for the Calibration Meeting:

- Do the materials include structured and sequenced activities and instructional guides to promote an understanding of numbers, counting, and perceptual subitizing, using the Mathematical Process Standards?
- Does the curriculum include opportunities for children to apply and gradually advance mathematical knowledge related to numbers, counting, and perceptual subitizing, through play and structured activities?

- Do the materials contain mathematical activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to numbers, counting, and perceptual subitizing?
- Do the materials provide opportunities to connect to real-world contexts that children can relate to, such as familiar objects, environments, or authentic situations?

Criterion 2.4	**Mathematics** Curriculum materials develop knowledge and skills that promote mathematical thinking.
Indicator 2.4b	Curriculum materials are designed to support development in numerical relationships and operations.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust, varied, structured, and sequenced activities and instructional guides to promote an understanding of numerical relations, operations, and conceptual subitizing. • Materials include robust and authentic opportunities for children to apply and gradually advance mathematical knowledge related to numerical relations, operations, and conceptual subitizing through play and structured activities. • Materials contain robust, varied activities and teacher guidance that teach mathematical words, vocabulary, and corresponding gestures related to numerical relations, operations, and conceptual subitizing. • Materials provide meaningful and robust opportunities to connect content to real-world contexts.	• Materials include some structured and sequenced activities and instructional guides to promote an understanding of numerical relations, operations, and conceptual subitizing. • Materials include some opportunities for children to apply and gradually advance mathematical knowledge related to numerical relations, operations, and conceptual subitizing through play and structured activities. • Materials contain some activities that teach mathematical words, vocabulary, and corresponding gestures related to numerical relations, operations, and conceptual subitizing. • Materials provide some opportunities to connect content to a real-world context,	• Materials include few or poor-quality activities and instructional guides to promote an understanding of numerical relations, operations, and conceptual subitizing. • Materials include few or poor-quality opportunities for children to apply and gradually advance mathematical knowledge related to numerical relations, operations, and conceptual subitizing through play and structured activities. • Materials contain few or poor-quality activities that teach mathematical words, vocabulary, and corresponding gestures related to numerical relations, operations, and conceptual subitizing. • Materials provide limited opportunities to connect content to real-world contexts.

Purpose and Research

Instruction that emphasizes numerical relationships and operations in pre-kindergarten is critical for supporting early mathematical development, particularly through the integration of mathematical language. Research has shown that preschoolers' understanding of mathematical language—terms like more, fewer, equal, and altogether—is strongly linked to their development of core numeracy skills, including number comparison and basic operations (Purpura, Napoli, & King, 2019). Moreover, mathematical language serves as a key mediator between intuitive number sense and formal symbolic math understanding, suggesting that without sufficient language support, children may struggle to make these connections (Purpura & Logan, 2015). Individual differences in children's mathematical language skills also contribute to disparities in early math achievement, further highlighting the importance of intentional, language-rich instruction (Purpura & Reid, 2016). Importantly, interventions that explicitly target mathematical language, such as dialogic reading strategies, have been shown to improve children's knowledge of numerical relationships and operations (Purpura, Napoli, Wehrspann, & Gold, 2017). Together, these findings underscore the foundational role of math-specific language instruction in developing young children's operational thinking and numerical understanding.

Understanding basic mathematical operations, such as addition and subtraction, plays a critical role in early cognitive development. Clements and Sarama (2011) emphasize that early exposure to operations through hands-on activities and guided instruction helps children develop an intuitive grasp of mathematical relationships. Research also suggests that problem-solving activities involving operations foster reasoning skills and mathematical fluency, allowing children to approach more advanced math concepts with confidence (Baroody, Lai, & Mix, 2006; McNeil et al., 2025).

Children's mathematical learning experiences are also influenced by the teaching approach. Young children benefit greatly from play and hands-on learning experiences that make abstract concepts more concrete. Additionally, intentional early math interventions that incorporate games and real-world problem-solving scenarios have been shown to improve numeracy and computational skills (Ramani & Siegler, 2008). Purpura et al. (2024) found that instruction that integrates quantitative language with numeracy instruction led to better outcomes on quantitative language skills and numeracy instruction than either alone.

Evidence Collection

This indicator includes the following key areas:

- Numerical Relationships
    - Activities that compare and order numbers (e.g., asking children to compare sets of manipulatives using language such as more, fewer, same)
    - Emphasize math language (more, many, most, same, similar, different, few, fewest, least, a little bit, and more)
- Operations
    - Activities that support children in adding and subtracting, including building an understanding that sets can be changed by joining and/or separating objects (e.g., grouping.
    - Activities that support children in composing and decomposing numbers, including putting parts of a number together to make the whole or breaking a whole number into its parts

- Subitizing *(conceptual)*
    - Activities that support children in comparing small quantities without counting
    - Activities that support children in subitizing small quantities to compose and decompose numbers without counting

Gathering evidence for the Calibration Meeting:

- Do the materials include structured and sequenced activities and instructional guides to promote an understanding of the principles and concepts of numerical relations, operations, and conceptual subitizing, using the Mathematical Process Standards?
- Does the curriculum include opportunities for children to apply and gradually advance mathematical knowledge related to numerical relations, operations, and conceptual subitizing through both play and structured activities?
- Do the materials contain activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to numerical relations, operations, and conceptual subitizing?
- Do the materials provide opportunities to connect to real-world contexts that children can relate to, such as familiar objects, environments, or authentic situations?

Criterion 2.4	**Mathematics** Curriculum materials develop knowledge and skills that promote mathematical thinking.
Indicator 2.4c	Curriculum materials are designed to support development in geometry and spatial thinking.

Scoring:

Meets Expectations *Geometry*	**Partially Meets Expectations** *Geometry*	**Does Not Meet Expectations** *Geometry*
• Materials include robust, varied, structured, and sequenced activities and guides to promote an understanding of the principles and concepts of geometry. • Materials include robust and varied opportunities to apply and gradually advance mathematical knowledge related to geometry using 2d and 3d shapes with various materials and through play and structured activities. • Materials contain robust and varied activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to geometry. • Materials provide robust and meaningful opportunities to connect to real-world contexts that children can relate to	• Materials include some structured and sequenced activities and guides to promote an understanding of the principles and concepts of geometry. • Materials include some opportunities to apply and gradually advance mathematical knowledge related to geometry using 2d and 3d shapes through play and structured activities. • Materials contain some activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to geometry. • Materials provide some opportunities to connect to real-world contexts that children can relate to	• Materials include few or poor-quality activities to promote an understanding of the principles and concepts of geometry. • Materials include few or poor-quality opportunities to practice and advance mathematical knowledge related to geometry using 2d and 3d shapes through play and structured activities. • Materials contain few or poor-quality activities that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to geometry. • Materials provide few opportunities to connect to real-world contexts that children can relate to.

Meets Expectations *Spatial Thinking*	Partially Meets Expectations *Spatial Thinking*	Does Not Meet Expectations *Spatial Thinking*
• Materials include robust, varied, structured, and sequenced activities to promote an understanding of the principles and concepts of spatial thinking. • Materials include robust opportunities for children to apply and gradually advance mathematical knowledge related to spatial thinking through play and structured activities. • Materials contain robust and varied activities (with aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to spatial thinking. • Materials provide robust and meaningful opportunities to connect to real-world contexts that children can relate to.	• Materials include some structured and sequenced activities to promote an understanding of the principles and concepts of spatial thinking. • Materials include some opportunities for children to apply and gradually advance mathematical knowledge related to spatial thinking through play and structured activities. • Materials contain some activities that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to spatial thinking. • Materials provide some opportunities to connect to real-world contexts that children can relate to.	• Materials include few poorly structured and sequenced activities to promote an understanding of the principles and concepts of spatial thinking. • Materials include few or poor-quality opportunities for children to apply and gradually advance mathematical knowledge related to spatial thinking through play and structured activities. • Materials contain few or poor-quality activities that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to spatial thinking. • Materials provide few opportunities to connect to real-world contexts that children can relate to.

Purpose and Research

Developing geometry and spatial thinking in young children is essential for their cognitive, mathematical, and problem-solving abilities. Research has consistently shown that spatial thinking, which involves understanding and mentally manipulating objects and their relationships in space, plays a crucial role in problem-solving, mathematics, and scientific reasoning (The Spatial Reasoning Study Group, 2015). Early spatial skills are fundamental for cognitive development and later academic achievement (Atit et al., 2021; Georges et al., 2023; Kahl et al., 2022; Newcombe and Huttenlocher, 2000; Otálora & Taborda-Osorio, 2025). Similarly, Verdine, Golinkoff, Hirsh-Pasek, and Newcombe (2014) found that preschoolers with strong spatial reasoning abilities tend to perform better in mathematics as they progress through school, highlighting the importance of fostering these skills early on. Spatial thinking is also important to science, engineering, and technology (the first three subjects of "STEM") as well as to literacy (McGarvey et al., 2018).

Research has shown that young children are capable of learning geometric concepts such as shape recognition, composition, and spatial relationships when instruction is intentional and developmentally appropriate (Clements & Sarama, 2009). Geometry instruction in pre-K not only helps children categorize and analyze shapes but also builds the foundation for reasoning about properties and relationships, which are critical for higher-level math.

Clements and Sarama (2011) found that engaging preschoolers in activities such as shape recognition, patterning, and spatial visualization significantly enhances their overall mathematical understanding. Likewise, Casey, Erkut, Ceder, and Young (2008) demonstrated that early exposure to spatial experiences, such as playing with blocks and puzzles, contributes to better mathematical reasoning skills in later years.

Hands-on, playful learning is an effective way to build young children's intuitions about geometry and space. Children learn best through a variety of experiences, from exploration in activities such as block building, puzzles, and measuring, to games, to intentional teaching in whole and small group lessons. Activities like block building, puzzles, tangrams, and interactive storytelling encourage children to explore spatial relationships and geometric transformations. Wolfgang, Stannard, and Jones (2001) found that children who frequently engage in block play during preschool exhibit stronger spatial reasoning skills and perform better in mathematics by elementary school (see also Schmitt et al., 2025).

Evidence Collection

This indicator includes the following key areas:

- *Geometry*
  - Activities focused on recognizing, naming, exploring, and describing 2D & 3D shapes (including atypical or not prototypical shapes) in order to understand their parts, their properties, and how they relate to each other.
  - Activities focused on composing and decomposing shapes (e.g., using tangrams to build new shapes)
- *Spatial thinking*
  - Materials foster an understanding of how objects fit together in space (e.g., rotational and positional orientation and relationships)
  - Activities that develop spatial language, including shape names, size, features, relationships, and orientation (e.g., near, far, next to, around, inside, in, on)
  - Materials that encourage spatial thinking, such as maps, blocks, puzzles, and books that include spatial language

Gathering evidence for the Calibration Meeting:

Geometry

- Do the materials include structured and sequenced activities and instructional guides to promote an understanding of the principles and concepts of geometry, using the Mathematical Process Standards?
- Does the curriculum include opportunities for children to apply and gradually advance mathematical knowledge related to geometry using 2d and 3d shapes with various materials (i.e., tangrams) and through both play and structured activities?
- Do the materials contain activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to geometry?
- Do the materials provide opportunities to connect to real-world contexts that children can relate to, such as familiar objects, environments, or authentic situations?

Spatial thinking

- Do the materials include structured and sequenced activities to promote an understanding of the principles and concepts of spatial thinking, using the Mathematical Process Standards?
- Does the curriculum include opportunities for children to apply and gradually advance mathematical knowledge related to spatial thinking through both play and structured activities?
- Do the materials contain mathematical activities (with aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to spatial thinking?
- Do the materials provide opportunities to connect to real-world contexts that children can relate to, such as familiar objects, environments, or authentic situations?

Criterion 2.4	**Mathematics** Curriculum materials develop knowledge and skills that promote mathematical thinking.
Indicator 2.4d	Curriculum materials are designed to support development in measurement and data.

Scoring:

Meets Expectations Measurement • Materials include robust, varied, structured, and sequenced activities and guides to promote an understanding of the principles and concepts of measurement. • Materials include robust and varied opportunities to apply and gradually advance mathematical knowledge related to measurement through play and structured activities. • Materials contain robust and varied activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to measurement. • Materials provide robust and meaningful opportunities to connect to real-world contexts that children can relate to.	**Partially Meets Expectations** Measurement • Materials include some structured and sequenced activities and guides to promote an understanding of the principles and concepts of measurement. • Materials include some opportunities to apply and gradually advance mathematical knowledge related to measurement through play and structured activities. • Materials contain some activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to measurement. • Materials provide some opportunities to connect to real-world contexts that children can relate to.	**Does Not Meet Expectations** Measurement • Materials include few or poor-quality activities to promote an understanding of the principles and concepts of measurement. • Materials include few or poor-quality opportunities to apply and gradually advance mathematical knowledge related to measurement through play and structured activities. • Materials contain few or poor-quality activities that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to measurement. • Materials provide few opportunities to connect to real-world contexts that children can relate to.
Meets Expectations Data • Materials include robust, varied,	**Partially Meets Expectations** Data • Materials include some	**Does Not Meet Expectations** Data • Materials include few poorly

structured, and sequenced activities to promote an understanding of the principles and concepts of data. • Materials include robust opportunities for children to apply and gradually advance mathematical knowledge related to data through play and structured activities. • Materials contain robust and varied activities (with aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to data. • Materials provide robust and meaningful opportunities to connect to real-world contexts that children can relate to.	structured and sequenced activities to promote an understanding of the principles and concepts of data. • Materials include some opportunities for children to apply and advance mathematical knowledge related to data through play and structured activities. • Materials contain some activities that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to data. • Materials provide some opportunities to connect to real-world contexts that children can relate to.	structured and sequenced activities to promote an understanding of the principles and concepts of data. • Materials include few or poor-quality opportunities for children to apply and gradually advance mathematical knowledge related to data through play and structured activities. • Materials contain few or poor-quality activities that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to data. • Materials provide few opportunities to connect to real-world contexts that children can relate to.

Purpose and Research

Research has shown that young children benefit from early exposure to measurement concepts, such as length, weight, volume, and time, as these foundational skills support broader mathematical and scientific thinking. According to Clements and Sarama (2011), early measurement experiences help children develop an understanding of quantitative relationships, which is essential for later success in mathematics. Engaging children in activities that involve comparing, ordering, and estimating measurements enhances their ability to think critically and apply mathematical reasoning in real-world contexts (Ginsburg, Lee, & Boyd, 2008).

In addition to measurement, data skills are an important component of early math development. Introducing young children to sorting, categorizing, and graphing helps them recognize patterns, organize information, and make predictions—skills that are fundamental to mathematical literacy. Greenes, Ginsburg, and Balfanz (2004) suggest that early data experiences, such as creating simple charts or classifying objects by attributes, lay the groundwork for statistical reasoning and analytical thinking. These skills not only support mathematical learning but also foster cognitive development by encouraging children to observe, analyze, and interpret information.

Hands-on, play-based activities are highly effective in developing measurement and data skills in young learners. Engaging children in measuring objects with non-standard tools such as hands, feet, blocks, or string and using standard measuring tools such as rulers allows them to learn the progression from non-standard to standard measurement. Playful, exploratory activities help children build foundational experiences in a concrete way that later become explicit. Interactions with teachers within intentional activities help children build explicit concepts and skills (Sarama et al., 2022). Additionally, research by Seo and Ginsburg (2004) highlights the importance of

integrating measurement and data activities into everyday classroom routines, such as asking questions like “how many steps does it take you to get from your desk to the classroom door?” as this approach fosters natural engagement and a deeper understanding of mathematical relationships.

Longitudinal studies indicate that early exposure to measurement and data concepts is linked to later academic success in mathematics and science. A study by Nguyen et. al. (2016) found that early math skills, including measurement and data reasoning, are strong predictors of overall school achievement. Furthermore, early engagement with measurement and data analysis helps children develop problem-solving and critical thinking skills that are essential for STEM-related fields (National Research Council, 2009). By incorporating measurement and data activities into early childhood education, educators can support young children's cognitive growth, deepen their exposure and knowledge of the Next Generation Science Standards, and prepare them for future academic success with early science measurement concepts.

Evidence Collection

This indicator includes the following key areas:

- *Measurement*
  - Activities that involve direct comparison of objects in length, area, and capacity.
  - Activities where children determine the length or amount of something using appropriate units; for example, children initially measure length by placing multiple physical units end-to-end without gaps, then learn to iterate a single unit.
  - Activities that connect measurement to the physical world by solving problems involving measuring everyday objects.
  - Activities that foster understanding and applying concepts of length, weight, volume, and time
- *Data*
  - Materials include opportunities for collecting, organizing, and visually displaying data, as well as interpreting information to answer questions.
  - Materials include opportunities for interpreting information, including discussion about what the graph says (e.g., If the choice of which 3 ice cream flavors is your favorite, would tell which ice cream flavor is the favorite of most of the kids in the class) AND what it does not say (e.g., same graph would not say that children don’t like the flavors they didn’t pick as their favorite).

Gathering evidence for the Calibration Meeting:

Measurement:

- Do the materials include structured activities to promote an understanding of the principles and concepts of measurement, using the Mathematical Process Standards?
- Does the curriculum include opportunities for children to apply and gradually advance mathematical knowledge related to measurement, through both structured play and practice?
- Do the materials contain mathematical activities (with aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to measurement?
- Do the materials provide opportunities to connect to real-world contexts that children can relate to, such as

familiar objects, environments, or authentic situations?

Data:

- Do the materials include structured activities to promote an understanding of the principles and concepts of data, using the Mathematical Process Standards?
- Does the curriculum include opportunities for children to apply and gradually advance mathematical knowledge related to data, through both structured play and practice?
- Do the materials contain mathematical activities (with aligned teacher guidance that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to data?
- Do the materials provide opportunities to connect to real-world contexts that children can relate to, such as familiar objects, environments, or authentic situations?

Criterion 2.4	**Mathematics** Curriculum materials develop knowledge and skills that promote mathematical thinking.
Indicator 2.4e	Curriculum materials are designed to support development in patterns, structure, and algebraic thinking.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust, varied, structured, and sequenced activities and guides to promote an understanding of the principles and concepts of patterns, sequences, and algebraic thinking. • Materials include robust and varied opportunities to apply and gradually advance mathematical knowledge related to patterns, sequences, and algebraic thinking through play and structured activities. • Materials contain robust and varied activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to patterns, sequences, and algebraic thinking. • Materials provide robust and meaningful opportunities to connect to real-world contexts that children can relate to.	• Materials include some structured and sequenced activities and guides to promote an understanding of the principles and concepts of patterns, sequences, and algebraic thinking. • Materials include some opportunities to apply and gradually advance mathematical knowledge related to patterns, sequences, and algebraic thinking through play and structured activities. • Materials contain some activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to patterns, sequences, and algebraic thinking. • Materials provide some opportunities to connect to real-world contexts that children can relate to	• Materials include few or poor-quality activities to promote an understanding of the principles and concepts of patterns, sequences, and algebraic thinking. • Materials include few or poor-quality opportunities to apply and advance mathematical knowledge related to patterns, sequences, and algebraic thinking through play and structured activities. • Materials contain few or poor-quality activities that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to patterns, sequences, and algebraic thinking. • Materials provide few opportunities to connect to real-world contexts that children can relate to

Purpose and Research

Developing patterns, structure, and algebraic thinking skills in young children is essential for fostering early mathematical reasoning and problem-solving abilities. Research indicates that recognizing and extending patterns helps children build a foundation for algebraic thinking by enabling them to identify relationships and make predictions. According to Clements and Sarama (2007), early exposure to patterning activities strengthens children's ability to recognize mathematical structures, which supports later success in arithmetic and algebra. Algebraic thinking at the pre-K level involves recognizing patterns, understanding relationships, and using symbols to represent mathematical ideas. Studies show that young children who engage in structured patterning activities, such as repeating patterns with colors, shapes, or sounds, demonstrate stronger mathematical problem-solving abilities in later grades (Kidd, Pasnak, Gadzichowski, Gallington, Samper-Ternent, & Zheng, 2013). Additionally, early engagement with patterns and structures helps children develop the ability to generalize mathematical concepts, which is a key component of algebraic reasoning (Mulligan & Mitchelmore, 2009). Research by Papic, Mulligan, and Mitchelmore (2011) suggests that structured interventions focused on patterning, relational reasoning with number and arithmetic, and early algebraic thinking significantly improve children's mathematical achievement, particularly in understanding number relationships and operations.

Play-based learning and hands-on experiences are particularly effective in developing young children's algebraic thinking. Engaging children in activities such as sorting, creating repeating patterns, and identifying missing elements in a sequence promotes their ability to recognize mathematical relationships (Fyfe, McNeil, Rittle-Johnson, & DeCaro, 2014). Furthermore, teaching children to verbalize their thought processes while working with patterns enhances their ability to generalize and apply mathematical structures in new contexts (Blair, Knipe, & Gamson, 2008). Using abstract language (i.e., ABAB versus blue-red-blue-red) to talk about patterns also supports children's problem-solving skills. (Fyfe et al., 2015) Encouraging exploration through manipulatives, pattern blocks, and interactive games, especially those with growing patterns, provides meaningful learning experiences that support early algebraic reasoning.

Longitudinal research highlights the importance of early patterning skills as predictors of later academic success. Studies have shown that pattern recognition abilities in preschoolers correlate with higher mathematical achievement in elementary school (Rittle-Johnson et al., 2019). Early algebraic thinking also supports broader cognitive development by improving logical reasoning and problem-solving skills. By incorporating structured, engaging patterning activities into pre-K curricula, educators can help young children develop foundational skills that prepare them for more advanced mathematical concepts in later years.

Evidence Collection

This indicator includes the following key areas:

- *Patterns, structure, and algebraic thinking*
  - Activities that include recognizing or perceiving patterns (e.g., noticing a child in the class has a striped shirt with alternating colors)
  - Activities in which children experience patterns with objects, movement, and sounds (e.g., creating a clapping and tapping pattern)

- Activities with opportunities to replicate, extend, and create a pattern or sequence (e.g., using linking cubes to keep an AB pattern going)
- Activities that include various types of patterns (e.g., repeating patterns such as ABBABBABB or growing patterns such as sticks sequenced from small to large)
- Activities that teach or guide children as they look for and generalize the underlying structure or rule of a pattern (e.g., naming the repeating pattern core unit of linking cubes as red-blue, or the numerical relationships in growing patterns)
- Activities that support children in identifying relationships, number sequences, developing early algebraic reasoning, and using symbols to represent ideas (e.g., ask children to use different objects to create the same pattern, such as using shape manipulatives to show the same color pattern unit made with linking cubes)
- Activities that support children in communicating their mathematical ideas and reasoning about patterns (e.g., asking children questions such as “what comes next?” and “how do you know?”)

Gathering evidence for the Calibration Meeting:

- Do the materials include structured activities and instructional guides to promote an understanding of the principles and concepts of patterns, sequences, and algebraic thinking, using the Mathematical Process Standards?
- Does the curriculum include opportunities for children to apply and gradually advance mathematical knowledge related to patterns, sequences, and algebraic thinking, through both play and structured activities?
- Do the materials contain mathematical activities (and aligned teacher guidance) that explicitly include and teach mathematical words, vocabulary, and corresponding gestures related to patterns and sequences?
- Do the materials provide opportunities to connect to real-world contexts that children can relate to, such as familiar objects, environments, or authentic situations?

Criterion 2.4	**Mathematics** Curriculum materials develop knowledge and skills that promote mathematical thinking.
Indicator 2.4f	Curriculum materials are designed to build knowledge through key mathematical processes and skills.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust and varied activities that support the development of problem-solving skills, including reflection on problems and the use of a variety of strategies. • Materials include robust and varied support for children in developing, investigating, and evaluating mathematical arguments. • Materials include multiple, varied, and meaningful opportunities for the use of the language of math in discussing, solving, and evaluating problems. • Materials include robust, varied activities that highlight the interconnection between mathematical ideas and apply math to external concepts. • Materials include robust and varied activities that use or require different types of representations of mathematical ideas.	• Materials include some activities that support the development of problem-solving skills. • Materials include some support for children in developing, investigating, and evaluating mathematical arguments. • Materials include some opportunities for the use of the language of math in discussing, solving, and evaluating problems. • Materials include some activities that highlight the interconnection between mathematical ideas and apply math to external concepts. • Materials include some activities that use or require different types of representations of mathematical ideas.	• Materials include few or low-quality activities that support the development of problem-solving skills. • Materials include limited or weak support for children in developing, investigating, and evaluating mathematical arguments. • Materials include few opportunities for the use of the language of math in discussing, solving, and evaluating problems. • Materials include few or poor-quality activities that highlight the interconnection between mathematical ideas and apply math to external concepts. • Materials include few or poor-quality activities that use or require different types of representations of mathematical ideas.

Purpose and Research

The Mathematical Process Standards are essential in guiding the teaching and learning of mathematics, focusing on the development of key skills that enable students to think critically, solve problems, and apply mathematical

concepts in real-world contexts. These standards emphasize the importance of not just learning mathematical content but also engaging with the *process* of learning. By highlighting skills such as logical reasoning, problem-solving, and effective communication, these standards aim to cultivate a deeper understanding of mathematics and prepare students for complex problem-solving in various settings. Research supports the notion that when students are taught to engage with mathematics through these processes, they develop stronger mathematical thinking, which leads to improved academic outcomes and a better ability to apply mathematical concepts beyond the classroom (NCTM, 2000). The standards typically include the following components:

- Problem Solving: The ability to tackle routine and non-routine problems, model real-world situations, and apply various mathematical strategies.
- Reasoning and Proof: Developing logical reasoning and the ability to make and justify mathematical arguments.
- Communication: Expressing mathematical ideas clearly and effectively, both in writing and orally.
- Connections: Recognizing and understanding the connections between different areas of mathematics and real-world applications.
- Representation: Using various forms of representation (e.g., graphs, tables, equations) to express and analyze mathematical concepts.

By promoting these process standards, educators aim to provide students with a holistic approach to mathematics that fosters critical thinking, analytical skills, and the ability to communicate mathematical ideas effectively.

Evidence Collection

This indicator includes the following key areas:

- *Mathematical Process Standards, which support an understanding of number & operations*
  - Problem solving
    - Activities that use strategies to reflect on problems (e.g., discussing word problems, journaling about predictions, etc.)
    - Activities that involve solving problems through a variety of strategies or approaches (e.g., using different manipulatives or depictions to solve a simple addition problem)
  - Reasoning and proof
    - Activities that involve developing and investigating mathematical arguments (e.g., a student explaining how and why to extend a pattern, a teacher modeling how they solve a problem)
    - Activities that require the evaluation of mathematical arguments (e.g., modeling and prompting group discussion about problem solving and reasoning)
  - Communication
    - Materials support the use of the language of math (e.g., describe how you arrived at an

answer, describe world problems in mathematical terms)

- Connections
  - Materials encourage students to understand the interconnection between mathematical ideas (e.g., connecting geometric shapes when making a shape-based pattern)
  - Activities that apply math to external concepts (e.g., counting the number of chairs needed for visitors to the classroom, sharing)

- Representation
  - Activities that use different types of representations of mathematical ideas (e.g., using drawings and manipulatives)

Gathering evidence for the Calibration Meeting:

- Do the materials support the development of problem-solving skills, including reflection on problems and the use of a variety of strategies?
- Do the materials support children in developing, investigating, and evaluating mathematical arguments?
- Do the materials encourage the use of the language of math in discussing, solving, and evaluating problems?
- Do the materials include activities that highlight the interconnection between mathematical ideas and apply math to external concepts?
- Do the materials include activities that use or require different types of representations of mathematical ideas?

Criterion 2.5

Science and Engineering
Curriculum materials develop knowledge and skills that promote science and engineering practices.

Purpose and Research

Research highlights the importance of young children developing knowledge and skills that promote science and engineering practices, as early exposure to these disciplines fosters critical thinking, problem-solving, and inquiry-based learning. The National Research Council (2012) emphasizes that young children are naturally curious and benefit from hands-on, exploratory experiences that encourage observation, prediction, and experimentation. Studies indicate that early engagement in science and engineering supports cognitive development and enhances language skills (Brenneman, Stevenson-Boyd, & Frede, 2009).

Additionally, research suggests that incorporating engineering design challenges and scientific inquiry into early childhood education helps children develop persistence, creativity, and collaborative problem-solving skills (Nadelson et al., 2013). When young learners engage in meaningful, play-based science and engineering activities, they develop a deeper understanding of the world around them while building essential skills that prepare them for later academic success. By integrating these experiences into pre-K education, educators can nurture a generation of critical thinkers and innovators.

Criterion 2.5	**Science and Engineering** Curriculum materials develop knowledge and skills that promote science and engineering practices.
Indicator 2.5a	Curriculum materials promote the core ideas of life science, physical science, earth and space science, and engineering and technology through inquiry-based experiences.

Scoring: Curriculum materials promote the core ideas of life science, physical science, earth and space science, and engineering and technology through inquiry skills.

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include structured and robust activities that support the development of core science ideas and skills in life science. • Materials include structured and robust activities that support the development of core science ideas and skills in physical science. • Materials include structured and robust activities that support the development of core science ideas and skills in Earth and space science. • Materials include structured and robust activities that support the development of core science ideas and skills in engineering and technology. • Materials include multiple and varied opportunities for children to explore key concepts through play, experimentation, and other engaging learning activities. • Materials include many opportunities for children to practice talking about science concepts in life science, physical science, earth and space science, engineering,	• Materials include some activities that support the development of core science ideas and skills in life science. • Materials include some activities that support the development of core science ideas and skills in physical science. • Materials include some activities that support the development of core science ideas and skills in Earth and space science. • Materials include some activities that support the development of core science ideas and skills in engineering and technology. • Materials include some opportunities for children to explore key concepts through play, experimentation, and other engaging learning activities. • Materials include some opportunities for children to practice talking about science concepts in life science, physical science, earth and space science, and engineering and technology, and provide explicit vocabulary and/or gestures to support them. • Materials somewhat support the development of inquiry skills that can be applied to scientific	• Materials include limited activities that support the development of core science ideas and skills in life science. • Materials include limited activities that support the development of core science ideas and skills in physical science. • Materials include limited activities that support the development of core science ideas and skills in Earth and space science. • Materials include limited activities that support the development of core science ideas and skills in engineering and technology. • Materials include limited opportunities for children to explore key concepts through play, experimentation, and other engaging learning activities. • Materials include limited opportunities for children to practice talking about science concepts in life science, physical science, earth and space science, and engineering and technology, and provide explicit vocabulary and/or gestures to support them. • Materials rarely support the development of inquiry skills that

and technology, and provide explicit vocabulary and/or gestures to support them. ● Materials support the development of inquiry skills that can be applied to scientific content.	content.	can be applied to scientific content.

Purpose and Research

This indicator focuses on ensuring that pre-K curriculum materials introduce key concepts in life, physical, earth, and space sciences, as well as engineering and technology, through inquiry-based learning. Engaging young learners in observing plants, animals, and life cycles enhances cognitive development and language skills (National Research Council, 2012). Studies show that hands-on experiences in life science improve classification skills and pattern recognition while promoting long-term retention and appreciation for the natural world (French, 2004; Eshach & Fried, 2005).

Additionally, children should learn the core ideas of physical science, as early exposure helps develop problem-solving, reasoning, and inquiry skills. Exploring forces, motion, and material properties fosters critical thinking and supports language and cognitive development (National Research Council, 2012). Experiences with physical science concepts enhance children's ability to observe, predict, and experiment, laying the foundation for future learning (Gropen et al., 2011; Eshach & Fried, 2005).

Supporting young learners in exploring weather, seasons, landforms, and celestial objects helps develop their understanding of natural patterns and cause-and-effect relationships (National Research Council, 2012). Experiences with earth and space concepts enhance children's ability to ask questions, make predictions, and build early scientific reasoning skills (French, 2004; Eshach & Fried, 2005). Exposure to engineering and technology skills promotes problem-solving, creativity, and critical thinking. Also, engaging in designing, building, and testing simple structures and tools helps them develop spatial reasoning and an understanding of cause-and-effect relationships (Bers, 2008).

Evidence Collection

This indicator includes the following key areas:

- *Life science*
  - Materials explore the concepts of living and nonliving things
  - Activities that help children understand life cycles (i.e., butterfly life cycle)
- *Physical science*
  - Activities to explore states of matter (e.g., materials that are solids, liquids, and gases)
  - Activities that show properties of objects (e.g., using senses to observe and describe objects)
  - Activities to explore motion (e.g., rolling balls)
  - Activities to explore gravity (e.g., building a marble run)

    - Activities to explore simple machines (e.g., spoon, tongs, lever)
- *Earth and space science*
    - Activities to learn about weather and seasons
    - Activities to explore the water cycle
    - Materials to explore Earth as a planet
    - Materials to explore the sun, moon, and stars
    - Activities to learn about day and night
- *Engineering and technology*
    - Activities that introduce the design process
    - Activities that explore creating and building structures
    - Guidance on learning about and exploring digital tools and interactive media
- *Scientific Inquiry Skills*
    - Materials invite children to observe and share their noticings
    - Materials encourage children to ask questions
    - Materials give children opportunities to solve problems
    - Materials invite children to draw conclusions and share

Gathering Evidence for the Cluster Meeting:

- Do the materials include structured activities that support the development of core science ideas and skills?
- Are there unstructured opportunities for play, experimentation, and practice to gradually and intentionally develop an understanding of key science concepts?
- What is the frequency, variety, and balance of engaging opportunities for overall development of science skills and knowledge across concepts of life science, physical science, earth and space science, and engineering and technology?
- Do the materials included provide meaningful and rich opportunities to practice and gradually advance learning and exploration of core concepts and skills?
- Do the materials support the development of inquiry skills that can be applied to scientific content?
- Does the curriculum include opportunities for children to practice talking about science concepts in life science, physical science, earth and space science, and engineering and technology, and provide explicit vocabulary and/or gestures to support them?

Criterion 2.5	**Science and Engineering** Curriculum materials develop knowledge and skills that promote science and engineering practices.
Indicator 2.5b	Curriculum materials embed science concepts and skills, as well as the engineering cycle, throughout the content areas through integrated and interdisciplinary experiences.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide robust opportunities to integrate science with multiple content areas and connect learning across disciplines • Materials provide robust teacher guidance to integrate science with multiple content areas and support learning across disciplines. • Materials provide robust opportunities for children to explore cross-cutting concepts across learning experiences • Materials incorporate robust, play-based activities that mimic real-life situations and encourage collaboration.	• Materials provide some opportunities to integrate science with multiple content areas and connect learning across disciplines • Materials provide some teacher guidance to integrate science with multiple content areas and support learning across disciplines • Materials provide some opportunities for children to explore cross-cutting concepts across learning experiences • Materials incorporate some play-based activities that mimic real-life situations and encourage collaboration.	• Materials provide limited or weak opportunities to integrate science with multiple content areas and connect learning across disciplines • Materials provide limited or weak teacher guidance to integrate science with multiple content areas and support learning across disciplines • Materials provide limited opportunities for children to explore cross-cutting concepts across learning experiences • Materials incorporate limited or weak activities that mimic real-life situations and encourage collaboration.

Purpose and Research

Research supports the integration of science and engineering concepts in pre-K instructional materials, as interdisciplinary learning enhances cognitive development, problem-solving abilities, and engagement in early childhood education. Young children naturally explore their environment with curiosity, and embedding science and engineering into multiple content areas—such as literacy, math, and social studies—reinforces their ability to think critically and make connections across disciplines (National Research Council, 2012). Studies indicate that when children engage in hands-on, inquiry-based learning experiences that incorporate engineering design and scientific reasoning, they develop stronger spatial reasoning, collaboration skills, and persistence in problem-solving (Brenneman, Stevenson-Boyd, & Frede, 2009). Integrating these concepts into broader curricular experiences ensures that children see science and engineering as relevant, accessible, and interconnected with

everyday learning.

Additionally, interdisciplinary learning helps young learners develop language and communication skills, as discussing observations, making predictions, and explaining solutions requires them to articulate their thinking (Eshach & Fried, 2005). Research also suggests that embedding science and engineering within other subjects leads to higher engagement and deeper understanding, as children are more likely to retain knowledge when it is presented in meaningful, real-world contexts (Lindgren-Streicher & Koehler, 2020). By designing instructional materials that weave science and engineering throughout multiple content areas, educators provide a more holistic and engaging learning experience that fosters curiosity, creativity, and a foundation for future success.

Evidence Collection

This indicator includes the following key areas:

- *Integrated*
  - Learning activities are designed to incorporate multiple domains like math, science, and literacy.

- Interdisciplinary
  - Each discipline (SEL, Math, Science, and Literacy) is addressed separately, but concepts or skills connect across them.

- Cross-cutting concepts:
  - Activities focused on identifying and understanding patterns, such as the cycle of seasons
  - Activities that investigate cause and effect, such as pushing balls down a ramp
  - Activities that explore scale, proportion, and quantity, such as comparing amounts using more/less
  - Activities that show systems and system models, such as how parts of things work together
  - Activities that explore structure and function, such as real-life examples of how teeth chew food
  - Activities that show stability and change, such as planting seeds and watching them grow

Gathering Evidence for the Cluster Meeting:

- Do the materials provide teacher guidance and opportunities to integrate science with multiple content areas such as math, social studies, and literacy?
- What is the frequency and variety of engaging opportunities for science integration?
- Do the materials provide opportunities for children to explore crosscutting science concepts?
- Do the materials incorporate play-based activities that mimic real-life situations, encourage collaboration, and promote critical thinking?
- Do the materials provide teacher guidance and opportunities for children to use core ideas and skills from science in ways that connect and support learning across other disciplines (e.g., math, literacy, SEL)?

Criterion 2.6

Social Studies
Curriculum materials develop knowledge and skills that promote social studies development.

Purpose and Research

The purpose of promoting social studies development in Pre-K students is to develop skills that promote social studies learning by fostering an understanding of community, culture, and civic engagement through age-appropriate activities. Early social studies education helps children build a sense of identity, cooperation, and respect for diversity, which are foundational for later civic participation. Well-structured curriculum materials introduce concepts such as roles in society, geography, and decision-making through play-based learning, storytelling, and hands-on experiences. By integrating these concepts into instruction, educators create meaningful learning experiences that help young learners develop a sense of belonging, problem-solving skills, and early civic awareness.

Social studies instruction in pre-K helps young children develop foundational skills in social-emotional learning, cultural awareness, and civic engagement. By exploring concepts such as community, family roles, and cooperation, children begin to understand their place in the world and how to interact positively with others. Research suggests that early exposure to social studies concepts fosters critical thinking and problem-solving skills, which are essential for later academic success (Alleman & Brophy, 2010). Additionally, social studies instruction supports language development as children engage in discussions, storytelling, and role-playing activities that enhance their communication abilities (National Research Council, 2001). Furthermore, studies show that incorporating diverse cultural perspectives in early education promotes inclusivity and empathy, helping children develop respect for different backgrounds and experiences (Banks, 2016). By introducing social studies concepts in pre-K, educators lay the groundwork for responsible citizenship and social awareness, ensuring that children grow into informed and engaged members of society.

Criterion 2.6	**Social Studies** Curriculum materials develop knowledge and skills that promote social studies development.
Indicator 2.6a	Curriculum materials promote the core ideas of history, geography, economics, and civics through inquiry-based experiences that support social studies knowledge and skill development.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include structured and robust activities that support the development of core social studies ideas and skills in history. • Materials include structured and robust activities that support the development of core social studies ideas and skills in geography. • Materials include structured and robust activities that support the development of core social studies ideas and skills in economics. • Materials include structured and robust activities that support the development of core social studies ideas and skills in civics. • Materials include multiple and varied opportunities for children to explore key concepts through play and other engaging learning activities. • Materials include frequent opportunities for children to practice talking about social studies concepts in civics, history, economics, and geography, and provide explicit vocabulary and/or gestures to support them. • Materials include consistent opportunities to connect	• Materials include some structured activities that support the development of core social studies ideas and skills in history. • Materials include some structured activities that support the development of core social studies ideas and skills in geography. • Materials include some structured activities that support the development of core social studies ideas and skills in economics. • Materials include some structured activities that support the development of core social studies ideas and skills in civics. • Materials include some opportunities for children to explore key concepts through play and other engaging learning activities. • Materials include some opportunities for children to practice talking about social studies concepts in civics, history, economics, and geography, and provide some vocabulary and/or gestures to support them. • Materials include some opportunities to connect	• Materials include limited activities that support the development of core social studies ideas and skills. • Materials include limited activities that support the development of core social studies ideas and skills in geography. • Materials include limited activities that support the development of core social studies ideas and skills in economics. • Materials include limited activities that support the development of core social studies ideas and skills in civics. • Materials include limited opportunities for children to explore key concepts through play and other engaging learning activities. • Materials include limited opportunities for children to practice talking about social studies concepts in civics, history, economics, and geography, and limited vocabulary and/or gestures to support them. • Materials include limited opportunities to connect children's social studies

children's social studies development to concepts of self-identity, family, community, and diversity. • Materials support the development of inquiry skills that can be applied to social studies content.	children's social studies development to concepts of self-identity, family, community, and diversity. • Materials somewhat support the development of inquiry skills that can be applied to social studies content.	development to concepts of self-identity, family, community, and diversity. • Materials rarely support the development of inquiry skills that can be applied to social studies content.

Purpose and Research

The National Council for Social Studies emphasizes that early social studies education is vital, as it shapes children's attitudes as citizens of their classrooms, schools, and larger communities. Introducing young children to history, geography, economics, and civics in Pre-K serves to build foundational knowledge and skills that are essential for their development as informed and engaged citizens. Early exposure to these subjects helps children understand their roles within various communities, appreciate cultural diversity, and develop a sense of identity and belonging. Through age-appropriate activities, such as storytelling, play-based learning, and interactive discussions, children learn about societal roles, spatial relationships, basic economic concepts, and the importance of rules and cooperation. These experiences not only enhance cognitive and social skills but also foster critical thinking and empathy, preparing young learners for active participation in a democratic society.

Promoting skills that support social studies development in pre-K children is essential for fostering their understanding of the world, citizenship, and social interactions. Early exposure to social studies concepts helps children develop an awareness of their community, history, geography, and cultural diversity, laying the foundation for responsible and informed participation in society. Research indicates that introducing young learners to social studies through play-based and inquiry-driven approaches enhances their critical thinking, problem-solving, and communication skills (Copple & Bredekamp, 2009). Children who engage in activities related to community roles, historical storytelling, and spatial awareness develop a sense of identity and belonging, which is essential for their social-emotional growth (Mindes, 2014).

Geography and spatial thinking play a critical role in early social studies education, as they help children develop an understanding of location, direction, and mapping. Research suggests that children who engage in hands-on activities, such as using simple maps or exploring their surroundings, develop stronger spatial awareness and problem-solving skills (National Research Council, 2006). Additionally, incorporating discussions about cultural diversity and traditions promotes empathy and respect for others, reinforcing social-emotional competencies essential for collaboration and communication (Levine & Bigler, 2008). Teaching children about different cultures and historical perspectives from an early age encourages inclusivity and fosters positive attitudes toward diversity.

Civic education is another essential aspect of early social studies learning. Engaging young children in discussions about fairness, rules, and responsibilities helps them develop foundational civic knowledge and a sense of justice (Parker & Jarolimek, 2012). Research has shown that early civic engagement, such as classroom voting activities and role-playing community helpers, supports children's ability to think critically about societal

roles and responsibilities (Castro, Field, Baek, & Morin, 2014). By integrating social studies concepts into daily routines, educators can help children build connections between their experiences and the larger social world, preparing them for active participation in their communities.

Evidence Collection

Social Studies core ideas and skills include the following key concepts:

- *Core Ideas*
  - History
    - Materials encourage children to understand the past, present, and future
    - Materials explore how people and things change
    - Materials explore the sequence of events
  - *Geography*
    - Materials help children develop spatial understanding, perspectives, and relationships between people and places.
  - *Economics*
    - Materials explore how people work to meet their wants
    - Activities where children recognize the use of different forms of exchange, including money and/or goods and services
  - *Civics*
    - Materials explore the role of an individual in a family, community, and society.
    - Opportunities for children to understand how groups work together and the rules that guide them
    - Materials explore the role of diversity in community and society
- *Inquiry Skills*
  - Materials invite children to ask questions and plan an inquiry to learn more.
  - Materials invite children to use tools and resources to support their inquiry (e.g., maps, graphs, oral interviews, charts)
  - Materials invite children to share their thinking and to take action (e.g., discuss why a classroom rule should be added and ask the teacher to add it to the class rules)

Gathering Evidence for the Calibration Meeting:

- Do the materials include structured activities that support the development of core social studies ideas and skills?
- Are there unstructured opportunities for both play and practice to gradually and intentionally develop an understanding of key concepts?
- What is the frequency, variety, and balance of engaging opportunities for the overall development of social studies skills and knowledge?
- Do the materials included provide meaningful and rich opportunities to practice and gradually advance learning and exploration of core concepts and skills?
- Does the curriculum include opportunities for children to practice talking about social studies concepts in civics, history, economics, and geography, and provide explicit vocabulary and/or gestures to support them?

- Are there sufficient opportunities to connect children's social studies development to concepts of self-identity, family, community, and human differences and similarities (diversity)?

Criterion 2.6	**Social Studies** Curriculum materials develop knowledge and skills that promote social studies development.
Indicator 2.6b	Curriculum materials embed social studies concepts and skills throughout the content areas through integrated and interdisciplinary learning experiences.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide robust opportunities to integrate social studies with multiple content areas and connect learning across disciplines. • Materials provide robust teacher guidance to integrate social studies with multiple content areas and connect learning across disciplines • Materials incorporate robust, play-based activities that mimic real-life situations and encourage collaboration	• Materials provide some opportunities to integrate social studies with multiple content areas. • Materials provide some teacher guidance to integrate social studies with multiple content areas. • Materials incorporate some play-based activities that mimic real-life situations, encourage collaboration, and promote critical thinking	• Materials provide limited or weak teacher guidance to integrate social studies with multiple content areas. • Materials provide limited or weak teacher guidance to integrate social studies with multiple content areas. • Materials incorporate limited or weak activities that mimic real-life situations, encourage collaboration, or promote critical thinking.

Purpose and Research

Integrating social studies concepts across content areas in Pre-K fosters real-world connections, critical thinking, and early literacy while supporting social-emotional learning and studies development. This interdisciplinary approach helps children understand their roles in the community, develop spatial awareness, and engage in hands-on experiences that make learning meaningful. By embedding social studies in subjects like literacy, math, and science, educators promote cultural awareness, cooperation, and problem-solving skills, preparing young learners for future academic success. This method ensures that social studies is not isolated but naturally woven into everyday learning, making it relevant and engaging.

In a recent study identifying tenets of high-quality pre-K programming, the National Academies of Science, Engineering, and Medicine (2024) call for an integrated curriculum because of its ability to simultaneously address learning goals across content areas and developmental domains. Using an integrated curriculum allows educators to cover multiple learning goals in a limited period of instructional time. These materials can help students make meaningful connections across content areas and units of study. An example of this in action could include literacy, social and emotional, and social studies goals being addressed within a single lesson or activity, like

reading books about communities and culture.

Integrated curricula can also support anti-bias education and other inclusive practices (Derman-Sparks & A.B.C. Task Force, 1989; Derman-Sparks & Edwards, 2020) by incorporating the reading and writing of stories that promote positive identity for children of all races, ethnicities, languages, and abilities. These curricula encourage respect for differences and provide examples of fairness, agency, and actions that advance social justice (Brooks & Browne, 2012; Fleming et al., 2015). The terms *interdisciplinary* and *integrated* are often used interchangeably to describe approaches that connect learning across different content areas, but they have distinct meanings. Integrated curricula can vary in scope, with some using one domain to support another and others fully merging multiple domains into comprehensive lessons, activities, or projects. In contrast, interdisciplinary curricula selectively connect domains only when doing so enhances each subject while maintaining its unique conceptual and epistemological structures (National Academies of Sciences, 2022).

Evidence Collection

Note that integrated and interdisciplinary experience includes the following key areas:

- *Integrated*
  - Learning activities are designed to incorporate multiple domains, like math, science, and literacy.
- *Interdisciplinary*
  - Each discipline (SEL, Math, Science, and Literacy) is addressed separately, but concepts or skills connect across them.
- *Play-based with real-world application*
  - Uses activities that are or mimic real-life situations to reinforce learning across various domains
  - Activities encourage collaboration between children
  - Materials and activities promote real-life problem-solving and critical thinking

Gathering Evidence for the Calibration Meeting:

- Do the materials provide teacher guidance and opportunities to integrate social studies with multiple content areas such as math, science, and literacy?
- What is the frequency and variety of engaging opportunities for social studies integration?
- Do the materials incorporate play-based activities that mimic real-life situations, encourage collaboration, and promote critical thinking?
- Do the materials provide teacher guidance and opportunities for children to use core ideas and skills from social studies in ways that connect and support learning across other disciplines (e.g., math, literacy, SEL)?

Criterion 2.7

Fine Arts
Curriculum materials develop knowledge and skills that promote fine arts disciplines.

Purpose and Research

Promoting fine arts disciplines in pre-K education fosters creativity, self-expression, and cognitive development in young children. Research indicates that engagement in the fine arts—such as visual arts, music, dance, and dramatic play—enhances children's fine motor skills, spatial awareness, and problem-solving abilities (Eisner, 2002). Participation in artistic activities also supports language development and literacy, as children use symbols, storytelling, and movement to communicate ideas and emotions (Mages, 2008). Additionally, exposure to music and rhythm has been shown to improve mathematical thinking, pattern recognition, and executive functioning skills, which are critical for early learning (Guhn, Emerson, & Gouzouasis, 2019).

The arts play a vital role in supporting social-emotional learning, as they encourage collaboration, empathy, and self-regulation. Research has demonstrated that children who engage in dramatic play and role-playing activities develop stronger interpersonal skills and emotional intelligence, helping them navigate social interactions more effectively (Goldstein & Lerner, 2018). Furthermore, visual arts and creative movement provide outlets for self-expression, helping young learners process emotions and build confidence (Winner, Goldstein, & Vincent-Lancrin, 2013).

Integrating fine arts into early childhood education also enhances overall academic achievement. Studies show that children who participate in arts-rich curricula demonstrate higher levels of engagement, motivation, and cognitive flexibility, which contribute to long-term academic success (Brown & Sax, 2013).

Criterion 2.7	**Fine Arts** Curriculum materials develop knowledge and skills that promote fine arts disciplines.
Indicator 2.7a	Curriculum materials promote the core ideas of visual arts, music, dance, and drama through skills that support artistic skill development.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include a balanced approach to fine arts disciplines (visual arts, music, drama, dance) and development skills (creating, performing/producing/presenting, responding, connecting) • Materials include multiple structured activities to support fine arts knowledge and skill development. • Materials consistently provide an inquiry-based approach to the content. • Materials offer consistent opportunities for unstructured exploration and play that encourage artistic expression and development. • Materials offer consistent opportunities for students to create, perform, produce, respond, and connect to artistic work. • Materials offer an introduction and repetition of content vocabulary words.	• Materials include a somewhat balanced approach to fine arts domains and development skills that include all domains and skills, but may prioritize some. • Materials include some activities to support fine arts knowledge and skill development. • Materials provide an inquiry-based approach to some of the content. • Materials offer some opportunities for unstructured exploration and play that encourage artistic expression and development. • Materials offer some opportunities for students to create, perform, produce, respond, and connect to artistic work. • Materials offer exposure to some content vocabulary words.	• Materials include an approach to fine arts domains and development skills that is not balanced and may not include all domains or skills. • Materials include infrequent activities to support fine arts knowledge and skill development. • Materials offer minimal opportunities for unstructured exploration and play that encourage artistic expression and development. • Materials rarely provide an inquiry-based approach to the content. • Materials offer minimal opportunities for students to create, perform, produce, respond, and connect to artistic work. • Materials do not explicitly introduce content vocabulary words.

Purpose and Research

Research supports the idea that pre-K children should engage in visual arts, music, dance, and drama as these activities foster artistic development and contribute to cognitive, social, and emotional growth. According to Eisner (2002), exposure to the arts enhances creativity, problem-solving, and fine motor skills, allowing young children to

express themselves in unique and meaningful ways. Music education, in particular, has been linked to improved language development and spatial-temporal reasoning, which are critical for early literacy and mathematical skills (Hallam, 2010). Additionally, dance helps develop coordination, body awareness, and self-regulation, while drama encourages role-playing and storytelling, promoting communication and social skills (Guss et al., 2014). The integration of the arts in early childhood education also supports emotional expression and resilience, helping children process experiences and emotions in a safe and creative environment (Winner, Goldstein, & Vincent-Lancrin, 2013). By incorporating diverse artistic experiences, educators nurture children's innate creativity and provide a strong foundation for lifelong artistic engagement.

Evidence Collection

This indicator includes the following key areas:

- *Fine arts disciplines*
  - Visual Arts- activities that explore different art media, tools, and processes, such as drawing, painting, sculpting, and making collages
  - Music- activities that explore the relationship between beat and rhythm, singing, and playing instruments
  - Drama- activities that invite participation in dramatic play scenes, storytelling, and using props
  - Dance- activities that involve moving to music individually or in groups
- *Artistic development skills*
  - Creating: Conceptualizing artistic ideas, developing and organizing work, refining and completing work
    - Encouraging children to use various materials, sounds, and movements to explore and express emotions, ideas, and stories.
    - Introducing basic artistic techniques and tools such as painting, drawing, sculpting, singing, clapping, and body movement.
    - Recognizing elements such as colors, shapes, lines, textures, rhythms, and patterns in the visual arts and music.
  - Performing/Producing/Presenting: Analyzing, interpreting, and presenting artistic work
    - Exploring body movements through performances of dance, role-playing, and dramatic storytelling.
    - Using techniques to create and present artistic work, such as singing a song, drawing a picture, or performing a dance.
  - Responding: Analyzing and evaluating work
    - Encouraging children to observe, describe, and react to different forms of artistic expression.
  - Connecting: Making personal connections to artistic work and connecting artistic work to the broad world and artistic context
    - Process-focused art experiences - the emphasis is on the creative journey rather than the final product.
- Inquiry based
  - Children are encouraged to ask questions throughout the curriculum materials.

Gathering evidence for the Calibration Meeting:

- Do the materials include structured activities to promote fine arts knowledge and skill development?
- Are there opportunities for unstructured exploration and play to encourage artistic expression and development?
- Do the materials provide opportunities for children to strengthen and build skills in visual arts, music, drama, and dance?
- Does the curriculum include opportunities for children to practice and gradually advance in creating artistic work across disciplines?
- Does the curriculum provide opportunities for children to respond to the artistic work of their peers and the broader artistic community?
- Does the curriculum include opportunities for children to perform work, produce work, or present their work or the work of others?
- Does the curriculum provide opportunities for children to make connections between art and themselves or art and the world?
- Do materials include an explicit introduction and repetition of vocabulary words related to the content?

Criterion 2.7	**Fine Arts** Curriculum materials develop knowledge and skills that promote fine arts disciplines.
Indicator 2.7b	Curriculum materials embed artistic expression, ideas, and work throughout the content areas through integrated and interdisciplinary experiences.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide robust opportunities to integrate fine arts across multiple content areas and connect learning across disciplines • Materials offer teacher guidance to support integrating fine arts across multiple content areas and connecting learning across disciplines. • Materials include robust opportunities for unstructured exploration and play that leverage artistic expression and development to support learning in other content areas. • Materials incorporate robust, play-based activities that mimic real-life situations, encourage collaboration, and promote critical thinking.	• Materials provide moderate opportunities to integrate fine arts across multiple content areas and connect learning across disciplines. • Materials provide moderate teacher guidance to support integrating fine arts across multiple content areas and connecting learning across disciplines. • Materials include moderate opportunities for unstructured exploration and play that leverage artistic expression and development to support learning in other content areas. • Materials incorporate some play-based activities that mimic real-life situations, encourage collaboration, and promote critical thinking	• Materials provide limited or weak opportunities to integrate fine arts across multiple content areas and connect learning across disciplines. • Materials provide limited or weak teacher guidance to support integrating fine arts across multiple content areas and connecting learning across disciplines. • Materials include limited or weak opportunities for unstructured exploration and play that leverage artistic expression and development to support learning in other content areas. • Materials incorporate limited or weak activities that mimic real-life situations, encourage collaboration, or promote critical thinking.

Purpose and Research

Integrating fine arts throughout content areas in Pre-K education serves to enhance cognitive, social, emotional, and motor skills development by providing children with diverse avenues for learning and expression. This interdisciplinary approach not only fosters creativity and problem-solving abilities but also aids in the comprehension of complex concepts by presenting them in more accessible, visual formats. Arts integration supports the development of motor skills, language acquisition, and social competencies, contributing to a well-rounded early educational experience.

Research emphasizes the importance of embedding artistic expression, ideas, and work throughout content areas in pre-K classrooms through integrated and interdisciplinary experiences. Arts integration enhances engagement, deepens learning, and supports multiple modes of understanding by allowing children to express concepts creatively across subjects (Rabkin & Redmond, 2006). Studies show that interdisciplinary arts experiences improve cognitive development by fostering critical thinking, problem-solving, and memory retention (Sousa, 2011). Furthermore, embedding the arts in subjects like math, science, and literacy helps children make meaningful connections, reinforcing comprehension and application of knowledge (Ewing, 2010). For example, incorporating music and movement in early literacy instruction has been shown to enhance phonemic awareness and vocabulary acquisition (Hallam, 2010). Additionally, interdisciplinary approaches encourage collaboration, communication, and social-emotional development, providing a holistic foundation for lifelong learning (Burnaford, 2007).

Evidence Collection

This indicator includes the following key areas:

- Integrate multiple subject areas
    - Learning activities are designed to incorporate multiple content areas like math, science, and literacy.
- Interdisciplinary
    - Each discipline is addressed separately, but concepts or skills connect across them.
- Play-based with real-world application
    - Uses activities that mimic real-life situations to reinforce learning across various domains
    - Activities encourage collaboration between children
    - Materials and activities promote real-life critical thinking

Gathering evidence for the Calibration Meeting:

- Do the materials provide opportunities to integrate fine arts with multiple subject areas, connecting with content areas like math, science, and literacy?
- Do the materials connect concepts across different domains to develop a holistic understanding of the topic?
- Are there opportunities for unstructured exploration and play that leverage artistic expression and development to support learning in other content areas?
- Do the materials provide an inquiry-based approach to the content?
- Do the materials incorporate play-based activities that mimic real-life situations, encourage collaboration, and promote critical thinking?
- Does the curriculum provide opportunities for children to use the core concepts of fine arts (responding, connecting, creating, and performing/producing/presenting) to strengthen their learning in other content areas?
- Do the materials offer teacher guidance on how to support interdisciplinary learning that blends social studies with other content areas, such as literacy development?

Criterion 2.8

Physical and Motor Development
Curriculum materials promote physical and motor development through active play and movement.

Purpose and Research

The purpose of incorporating physical and motor development in instructional materials is to support the holistic growth and development of young children. Research supports the importance of developing physical and motor development skills in early childhood. In a review of the literature, evidence suggests that motor and cognitive development are interrelated. More broadly, there is good evidence that physical activity promotes neurocognitive development in children at all ages (Trawick-Smith, 2014).

Active play facilitates young children's development and learning in physical, social, emotional, and cognitive competencies. Play encourages fine motor skill development, which involves the use of small muscles in the hands and fingers and is essential for tasks such as writing, drawing, and manipulating small objects. Play also enhances gross motor development involving larger muscle groups, which are crucial for activities such as running, jumping, and climbing (NAEYC, 2020). Huggett and Howells (2024) add that play that strengthens fine motor skills and gross motor skills contributes to school readiness.

In addition, Martinez-Bello and Estevan (2021) note that engagement in physical activity and motor skill development has numerous health and developmental benefits. This positions preschool children in an important stage for physical, mental, and social development. Both fine and gross motor skills are crucial for future physical activity levels and quality physical activity instruction in the younger years during the younger years can enhance engagement in life-long physical activity (Huggett & Howells, 2024).

Criterion 2.8	**Physical and Motor Development** Curriculum materials promote physical and motor development through active play and movement.
Indicator 2.8a	Curriculum materials are intentionally designed to support the development of gross motor skills.

Scoring:

Meets Expectations:	Partially Meets Expectations:	Does Not Meet Expectations:
• Materials consistently include planned lessons or activities that are aligned to clear, developmentally appropriate learning goals. • Materials consistently include a range of engaging, developmentally appropriate student activities that progress in complexity over time. • Materials include a variety of engaging activities that target different gross motor skills (e.g., coordination and movement, balance, muscle strength, and flexibility). • Materials include robust and explicit guidance with detailed instructions for conducting the activities and teacher modeling. • Materials clearly connect gross motor activities with other areas of learning. • Materials provide robust guidance on setting up the physical environment to promote gross motor skill development.	• Learning goals are included inconsistently, are inconsistently clear and developmentally-appropriate, or do not have aligned lessons or activities. • Student activities included are sometimes developmentally appropriate and/or progress inconsistently in complexity over time. • Materials include a limited variety of activities that target different gross motor skills (e.g., coordination and movement, balance, muscle strength, and flexibility). • Materials include some guidance for teachers, but it is inconsistently included or lacks detail. • Materials provide some connection between gross motor activities and other areas of learning. • Materials provide some guidance on setting up the physical environment to promote gross motor skill development	• Materials rarely include clear, developmentally appropriate learning goals or aligned activities • Materials do not include a range of developmentally appropriate student activities that progress in complexity over time • Materials do not include a limited variety of activities that target different gross motor skills (e.g., coordination and movement, balance, muscle strength, and flexibility). • Teacher guidance for conducting activities is rare or limited. • Materials provide limited or no connection between gross motor activities and other areas of learning. • Materials provide minimal guidance on setting up the physical environment to promote gross motor skill development.

Purpose and Research

Developing gross motor skills in young children is essential for their overall growth and well-being, forming the

foundation for their ability to engage in everyday activities and achieve key developmental milestones. These skills involve the large muscles of the body, such as those in the legs, arms, back, and core, and are critical for movements like walking, running, jumping, climbing, and balancing. The development of gross motor skills impacts many different aspects of growth and development, both physically and cognitively. Studies show that gross motor skills, such as running, jumping, and climbing, contribute to cardiovascular health, muscle development, and overall physical fitness in young children (Veldman, Jones, & Okely, 2016).

But in addition to the physical health benefits, gross motor skills also enhance cognitive development, social development, and language skills. Adolph and Hoch (2019) find that motor skills and cognitive skills are interconnected, stating that activities requiring motor coordination, like playing ball games, are linked to better problem-solving abilities and executive functions. Activities involving gross motor skills, such as swinging or climbing, help children process sensory information effectively while movement stimulates the development of neural pathways in the brain, contributing to coordination, spatial awareness, and balance (Ayres & Robbins, 2005; Diamond, 2007).

Similarly, Goodway, Robinson, and Crowe (2010) link gross motor activities with learning cooperation, turn-taking, and conflict resolution; all of which are essential for social development. Impacts of gross motor skills on emotional development are clear, as mastery of these skills gives children a sense of accomplishment, boosting their self-confidence and emotional resilience (Payne & Isaacs, 2017). In fact, poor gross motor skills are linked to lower self-esteem and higher levels of anxiety and ADHD (Veldman et. al., 2016). Preschool-aged children should be physically active throughout the day to enhance growth and development. Children should be encouraged to be active in play that includes a variety of activity types (CDC, 2024).

Evidence Collection

This indicator includes the following key areas:

- *Coordination and Movement*
  - Coordination activities that give children opportunities to control large muscle groups as they engage in movements such as running, jumping, hopping, and climbing.
  - Activities that require movement across spaces (e.g., obstacle courses, playground games) to enhance spatial awareness and body control.
- *Balance*
  - Balancing skills include tasks like standing on one foot, walking on balance beams, or playing with stability-enhancing equipment.
- *Muscle Strength and Flexibility*
  - Games and activities that strengthen both upper and lower body muscles. In active play, movements like pushing, pulling, lifting, and stretching should be included to promote muscle growth and flexibility in large muscle groups (arms, legs, torso).

Gathering Evidence for the Calibration Meeting:

- Do the materials include a logical and adaptable sequence of engaging and age-appropriate activities for gross motor development and developmental adaptations?
- Are there opportunities for structured and unstructured physical play to promote gross motor skills (e.g., running, jumping, or climbing)?
- Are the exercises and games included providing engaging and rich opportunities to develop strength,

flexibility, coordination, and balance, including through cooperative play?

- Do the materials encourage growth and strength across all major muscle groups through a broad range of engaging activities?
- Do the materials provide explicit guidance for teachers, including modeling (e.g., of physical skills, an effort-based approach, and cooperative play) in a physical activity setting?
- Do the materials provide guidance on setting up the physical environment (e.g., outdoor play areas or indoor movement spaces) to promote gross motor skill development?
- Do the materials provide opportunities to integrate gross motor skills and activities into other content areas?

Criterion 2.8	**Physical and Motor Development** Curriculum materials promote physical and motor development through active play and movement.
Indicator 2.8b	Curriculum materials are intentionally designed to support the development of fine motor skills.

Scoring:

Meets Expectations

- Materials consistently include planned lessons or activities that are aligned to clear, developmentally appropriate learning goals
- Materials include a range of developmentally appropriate student activities that progress in complexity over time
- Materials include a variety of engaging activities that target different fine motor skills (e.g., hand-eye coordination, manual dexterity, grip, and control)
- Materials consistently include appropriate teacher guidance with detailed instructions for conducting the activities
- Materials clearly connect fine motor activities with other areas of learning

Partially Meets Expectations:

- Learning goals are included inconsistently, are inconsistently clear and developmentally-appropriate, or do not have aligned lessons or activities
- Student activities included are sometimes developmentally appropriate and/or progress inconsistently in complexity over time.
- Materials include a limited variety of engaging activities that target different fine motor skills (e.g., hand-eye coordination, manual dexterity, grip, and control).
- Teacher guidance is inconsistently included or lacks detail for conducting activities.
- Materials provide some connection between fine motor activities and other areas of learning

Somewhat Meets Expectations:

- Materials rarely include clear, developmentally appropriate learning goals or aligned activities
- Materials do not include a range of developmentally appropriate student activities that progress in complexity over time
- Materials do not include a variety of activities that target different fine motor skills (e.g., hand-eye coordination, manual dexterity, grip, and control).
- Teacher guidance for conducting activities is rare or limited.
- Materials provide limited or no connection between fine motor activities and other areas of learning.

Purpose and Research

In addition to gross motor skills, fine motor skills, those that require precise control of the smaller muscles in hands, fingers, feet, and toes, are essential for young children and also directly contribute to their physical, cognitive, and social and emotional development. Fine motor skill development is directly linked to academic readiness and performance. Fine motor skills, such as the pencil grasp and control, are foundational for handwriting and play a key role in literacy development. In fact, studies have shown that early fine motor proficiency predicts later reading and writing success (Grissmer, Grimm, Aiyer, Murrah, & Steele, 2010). Additionally, research indicates a strong correlation

between fine motor skills and math achievement. Activities like manipulating small objects or puzzles help develop spatial reasoning and problem-solving skills (Cameron, Brock, Murrah, Bell, Worzalla, Grissmer, & Morrison, 2012). Leveraging fine motor skills requires focus, planning, and coordination, all of which enhance executive functioning skills such as attention, self-regulation, and working memory (Becker, Miao, Duncan, & McClelland, 2014).

The development of fine motor skills also contributes to social and emotional development. Engaging in fine motor activities like building with blocks and crafting encourages collaboration, communication, and social bonding with peers (Wenner, 2016). Fine motor skills are crucial for performing everyday tasks like dressing, eating with utensils, and engaging in hygiene activities. Skills like these help children develop practical independence and adapt to structured school environments (Case-Smith, 2000).

Evidence Collection

This indicator includes the following key areas:

- *Hand-Eye Coordination*
  - Materials that engage children in tasks that involve precise control, such as threading beads, completing puzzles, or picking up small objects.
  - Materials that engage students in activities that refine their ability to visually track and manipulate
- *Manual Dexterity*
  - Materials that engage students with enhanced dexterity in fingers and hands, such as drawing, cutting with scissors, and writing, prepare children for more complex tasks like writing letters or tying shoelaces.
  - Instructional tools could include sensory play, clay modeling, or using utensils, paintbrushes, and other objects simultaneously.
- *Grip and Control*
  - Activities where children use writing tools, manipulatives, and other small objects to help develop proper grip strength and control (e.g., tripod or quadripod grip), which are critical for writing and artistic activities.

Gathering Evidence for the Calibration Meeting:

- Do the materials include structured activities to promote fine motor skills?
- Are there opportunities for play and practice to develop hand-eye coordination, manual dexterity, and grip and control?
- Do the materials provide guidance on setting up the physical environment (e.g., activities that involve painting, threading, picking up small objects, etc.)?
- Do the materials include a progression for fine motor development and developmental adaptations?
- Do the materials provide opportunities for children to strengthen and build hand-eye coordination skills *(see Evidence Collection)*?
- Does the curriculum include opportunities for children to practice and develop manual dexterity?
- Do the materials include engaging activities that explicitly focus on grip and control?
- Do materials gradually build fine motor skills throughout the curriculum?
- What is the frequency and variety of engaging opportunities for fine motor development?
- Do materials include activities that are considerate and reflective of age-appropriate fine motor development?
- Do the materials include providing engaging and rich opportunities to develop hand-eye coordination, manual

dexterity, grip, and control?
- Do the materials provide opportunities to integrate fine motor skills and activities into other content areas?

Criterion 2.9

Cognitive Processes and Approaches to Learning
Curriculum materials promote cognitive processes and approaches to learning through instruction and play.

Purpose and Research

Research strongly supports the integration of cognitive skill development, particularly executive functioning, into pre-K instructional materials through structured and unstructured learning experiences that include both direct instruction and play-based exploration. General cognitive competencies, such as executive function, are strongly related to mathematical learning and achievement. Research suggests that curricula that attend to these relations and build specific supports for developing both general cognitive competencies and mathematics yield multiple benefits simultaneously (Clements et al., 2016). Executive functioning refers to a set of mental processes, including working memory, cognitive flexibility, and inhibitory control, which are foundational for learning and self-regulation (Diamond, 2013). These skills begin developing rapidly in the preschool years and are critical for academic success and social-emotional development. High-quality instructional materials that embed opportunities for children to practice these skills through activities such as sequencing games, problem-solving tasks, and rule-switching activities can significantly enhance cognitive growth.

Approaches to learning are a set of skills that encompass curiosity, persistence, planning, and engagement in group learning. These skills are critical for preschoolers' learning and predict school readiness in language and math (Bustamante, White, & Greenfield, 2017). Play, especially guided or purposeful play, is a particularly powerful context for developing executive function and approaches to learning. According to Bodrova and Leong (2007), mature make-believe play fosters self-regulation and planning, two essential components of executive functioning. When children engage in sustained, imaginative scenarios, they must remember roles, follow rules, and adapt to changing ideas, which directly exercises cognitive flexibility and inhibitory control. Instructional materials that support this kind of play can thus promote executive functioning in developmentally appropriate and intrinsically motivating ways.

Additionally, the Center on the Developing Child at Harvard University (2011) emphasizes that intentional instructional design, where teachers scaffold cognitive skills through both direct instruction and responsive interactions, can strengthen the neural architecture associated with executive function. When combined with emotionally supportive environments and consistent routines, such materials not only enhance immediate cognitive outcomes but also contribute to long-term academic resilience. Therefore, effective pre-K curricula should balance structured learning opportunities with rich, play-based experiences that explicitly support the development of executive functioning and approaches to learning.

Criterion 2.9	**Cognitive Processes and Approaches to Learning** Curriculum materials promote cognitive processes and approaches to learning through instruction and play.
Indicator 2.9a	Curriculum materials are intentionally designed to support the development of cognitive processes.

Scoring:

Meets Expectation	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust and varied activities that develop children's reasoning skills by offering opportunities to ask questions, make connections, and think logically in play and practice. • Materials include robust and varied activities for children to engage in problem-solving by identifying problems, considering solutions, and taking action in play and practice. • Materials provide robust and varied opportunities to engage in critical thinking skills by analyzing information and making decisions about the world around them in both play and practice. • Materials include robust and varied activities that support children in engaging, planning, doing, and reflecting. • There are frequent and appropriately varied opportunities for engaging cognitive skill development.	• Materials include some activities that develop children's reasoning skills. • Materials include some activities for children to engage in problem-solving. • Materials provide some opportunities to engage in critical thinking skills, • Materials include some activities that support children in engaging in planning, doing, and reflecting. • There are some varied opportunities for engaging cognitive skill development.	• Materials include few activities that develop children's reasoning skills. • Materials include few activities for children to engage in problem-solving. • Materials provide few opportunities to engage in critical thinking skills. • Materials include few activities that support children in engaging in planning, doing, and reflecting. • There are few opportunities for cognitive skill development.

Purpose and Research

Intentional design of pre-K instructional materials is essential for promoting the development of cognitive processes in young children. Cognitive development in the early years, particularly in areas such as attention, memory, reasoning, and executive function, lays the foundation for later academic achievement and problem-solving abilities (National Research Council, 2001). Research has shown that children benefit most from learning environments that are purposefully structured to promote thinking skills, rather than relying on passive or incidental learning experiences. Instructional materials that are thoughtfully sequenced, scaffolded, and aligned with developmental milestones and progressions can effectively support the growth of these foundational cognitive skills.

High-quality early learning materials engage children in tasks that challenge them to observe, compare, predict, and reflect. These core cognitive processes contribute to deeper understanding. According to Clements and Sarama (2009), curricula that are research-based and designed with cognitive learning trajectories in mind in early math and science promote not just content knowledge but also cognitive flexibility and reasoning. These materials help educators provide the right level of challenge, enabling children to move from simple to more complex concepts through guided discovery and active engagement.

Furthermore, research from the Institute of Medicine and National Research Council (2015) highlights that intentional teaching practices, supported by well-designed materials, can enhance executive function skills like working memory and cognitive control. These materials often include embedded opportunities for planning, problem-solving, and self-monitoring—skills that are not only critical for academic success but also for lifelong learning. Thus, instructional materials in pre-K settings should be developed with a clear understanding of how children think and learn, ensuring they support cognitive development in systematic, meaningful ways.

Evidence Collection

This indicator includes the following key areas:

- *Reasoning*
  - Activities and experiences that invite children to ask questions, make connections, and think logically as they explore and learn about the world (e.g., asking open-ended questions during science experiments)
- *Problem solving*
  - Activities and experiences that encourage children to identify problems, consider solutions, and take action (e.g., making a tall tower in the block center that won't fall over)
- *Critical thinking*
  - Activities and experiences that give children opportunities to analyze information and make decisions about the world around them (e.g., storytelling with puppets that engage children in understanding what is happening in a situation and role-play scenarios)
- *Planning and Reflecting*
  - Activities and experiences that provide opportunities for children to plan their actions, engage in the activity, and reflect on what they did or learned (e.g., planning what they want to do during center

time, doing the activity, and then reflecting on what they actually did after center time)

Gathering evidence for the Calibration Meeting:

- Do the materials include activities that develop children's reasoning skills by offering them opportunities to ask questions, make connections, and think logically in play and practice?
- Do the materials include activities that encourage children to engage in problem-solving by identifying problems, considering solutions, and taking action in play and practice?
- Do the materials provide children with opportunities to engage in critical thinking skills by analyzing information and making decisions about the world around them in both play and practice?
- Do the materials include activities that support children in engaging in a cycle of planning, doing, and reflecting?
- What is the frequency and variety of engaging opportunities for cognitive skill development?

Criterion 2.9	**Cognitive Processes and Approaches to Learning** Curriculum materials promote cognitive processes and approaches to learning through instruction and play.
Indicator 2.9b	Curriculum materials are intentionally designed to support the development of executive functioning skills.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide robust and varied support for the development of working memory. • Materials include robust and varied inhibitory control activities. • Materials include robust and varied activities that support attention regulation by supporting children in sustaining focus and engagement. • Materials provide robust and varied activities that support cognitive flexibility.	• Materials include some support activities that support the development of working memory. • Materials include some robust and varied inhibitory control activities. • Materials include some activities that support attention regulation. • Materials provide some activities that support cognitive flexibility.	• Materials provide minimal support for the development of working memory. • Materials include few or poor-quality inhibitory control activities. • Materials include few or poor-quality activities that support attention regulation. • Materials provide few or poor-quality activities that support cognitive flexibility.

Purpose and Research

Intentional design of pre-K instructional materials plays a critical role in supporting the development of executive functioning (EF) skills, which include working memory, inhibitory control, and cognitive flexibility. These foundational cognitive processes begin to emerge in early childhood and are strongly predictive of later academic and social-emotional outcomes (Blair & Raver, 2015). Research shows that when instructional materials are deliberately crafted to embed EF-related activities—such as planning tasks, attention-focused games, and opportunities for rule-switching—they can significantly enhance children's self-regulation and learning capacity. Instructional materials that include structured play, interactive storytelling, and problem-solving tasks help children practice EF skills in meaningful and developmentally appropriate contexts.

Moreover, the Center on the Developing Child at Harvard University (2011) emphasizes that EF development is most effectively supported when instructional strategies are proactive and embedded across various classroom activities. Materials should integrate these skills into everyday learning through games, routines, and collaborative activities that require impulse control, turn-taking, and flexible thinking. As a result, pre-K programs that prioritize the intentional design of such experiences are better positioned to foster the cognitive and behavioral foundations

children need for school readiness and long-term success.

Evidence Collection

This indicator includes the following key areas:

- *Working memory:*
  - Activities that give children opportunities to keep information accessible and usable while performing a task (e.g., puzzles, multi-step instructions)
- *Inhibitory control:*
  - Activities that give children opportunities to resist a distraction when working on attaining a goal (e.g., waiting for a turn at circle time, playing games like “Red Light, Green Light”)
- *Attention regulation:*
  - Activities and opportunities that help children sustain focus and engagement on a task or goal (e.g., calming activities, movement breaks, and child-selected interest games or manipulatives)
- *Cognitive flexibility:*
  - Activities that support children in learning how to apply rules to different circumstances and remain calm during a transition or new experience (e.g., sorting games in which children have to sort by one rule, for example, color, and then switch to another rule, for example, shape)

Gathering evidence for the Calibration Meeting:

- Do the materials support the development of working memory with a variety of activities (e.g., puzzles, multi-step instructions, etc.)?
- Do the materials include inhibitory control activities that give children the opportunity to resist a distraction while working on attaining a goal?
- Do the materials include activities that support attention regulation by helping children sustain focus and engagement?
- Do the materials include activities that support cognitive flexibility by helping children learn how to apply rules to different circumstances and navigate transitions?

Criterion 2.9	**Cognitive Processes and Approaches to Learning** Curriculum materials promote cognitive processes and approaches to learning through instruction and play.
Indicator 2.9c	Curriculum materials foster the development of dispositions that support children's learning.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide robust and varied activities and experiences that give children the opportunity to follow their interests and act independently or with peers. • Materials include robust and varied activities and experiences that invite children to explore and develop their curiosity. • Materials provide children with robust support and an opportunity to work through obstacles and challenges as they become more proficient in skills. • Materials create robust and varied opportunities for children to express and develop their imagination and inventiveness.	• Materials provide some activities and experiences that give children the opportunity to follow their interests and act independently. • Materials include some activities and experiences that invite children to explore and develop their curiosity. • Materials provide children with some support and opportunity to work through obstacles and challenges as they become more proficient in skills. • Materials create some opportunities for children to express and develop their imagination and inventiveness.	• Materials provide few activities and experiences that give children the opportunity to follow their interests and act independently. • Materials include few activities and experiences that invite children to explore and develop their curiosity. • Materials provide children with minimal support and opportunity to work through obstacles and challenges as they become more proficient in skills. • Materials create few opportunities for children to express and develop their imagination and inventiveness.

Purpose and Research

A growing body of research underscores the importance of supporting children's motivation to learn within pre-K curriculum materials. Early childhood is a critical period for developing positive approaches toward learning, which can influence academic trajectories well into elementary school and beyond. According to the National Research Council (2001), children's motivation and engagement are essential components of school readiness. A curriculum that fosters autonomy, curiosity, and a sense of competence helps children build a strong foundation for lifelong learning. Self-determination theory, proposed by Deci and Ryan (1985), emphasizes the role of intrinsic motivation in effective learning. In the context of early education, when children are provided with opportunities to make choices, engage in meaningful play, and explore topics that interest them, they are more likely to be motivated to learn. Research shows that early educational experiences that support autonomy and competence lead to greater

engagement and improved academic outcomes (Ryan & Deci, 2000).

Recent studies further reinforce these foundational ideas by demonstrating how specific curricular features and teaching strategies can enhance young children's motivation. For instance, Yılmaz, Bekirler, and Sigirtmac (2024) found that hands-on science activities in preschool significantly increased children's intrinsic motivation to learn science, highlighting the value of inquiry-based learning. Similarly, Viñuela and de Caso Fuertes (2023) reported that active and cooperative learning methods, such as project-based activities, led to higher levels of intrinsic motivation among preschool children compared to more traditional instructional approaches. Integrating physical activity with academic and executive function tasks has also proven beneficial; Twardosz et al. (2021) showed that such integration improved attention and engagement in pre-K classrooms.

Motivational scaffolding strategies by teachers—such as offering choices, building on children's interests, and encouraging autonomy—have also been shown to sustain engagement, especially in playful and creative learning contexts (Kangas et al., 2024). As a result, early childhood educators and curriculum developers are increasingly encouraged to embed these motivation-supportive elements into pre-K materials. Collectively, this research supports the idea that motivation is not a secondary concern but a foundational aspect of effective early childhood education.

Evidence Collection

This indicator includes the following key areas:

- *Initiative*:
  - Activities, materials, and experiences that give children opportunities to follow their own interests and act independently, as well as in collaboration with peers (e.g., a job chart in the classroom in which children take on responsibilities such as holding the door or setting the table)
- *Curiosity*:
  - Activities, materials, and experiences that pique children's interests and invite them to explore (e.g., a teacher asks children open-ended questions on a walk, such as "what do you notice about this tree?" or "why do you think that?")
- *Perseverance*:
  - Activities, materials, and experiences that support children through obstacles or challenges as they work to become proficient in a skill or skills (e.g., the teacher offers puzzles of varying complexity depending on children's readiness)
- *Creativity*:
  - Activities, materials, and experiences that create opportunities for *imagination* and inventiveness (e.g., during a study on animals, the teacher puts clipboards, stuffed animals, and a play medical kit in the dramatic play center)

Gathering evidence for the Calibration Meeting:

- Do the materials provide activities and experiences that give children the opportunity to follow their interests and act independently or with peers?
- Do the materials include activities and experiences that invite children to explore and develop their curiosity independently or with peers?

- Do the materials support children in working through obstacles and challenges as they become more proficient in skills?
- Do the materials create opportunities for children to express and develop their imagination and inventiveness independently or with peers?

Gateway 3: Teacher and Student Supports

Criterion 3.1

Learning Environment
Curriculum materials foster a classroom environment that supports engagement and learning.

Purpose and Research

Research highlights that young children learn best in environments that are developmentally appropriate, engaging, and supportive of exploration and interaction (National Association for the Education of Young Children [NAEYC], 2020). A well-structured and stimulating classroom environment helps children develop foundational skills in literacy, numeracy, and social-emotional learning by encouraging active participation and meaningful interactions (Copple & Bredekamp, 2009). When instructional materials include activities that promote hands-on exploration, peer collaboration, and guided play, children are more likely to stay engaged and motivated in their learning experiences (Pianta, La Paro, & Hamre, 2008).

Additionally, research underscores the importance of instructional materials that help teachers create responsive and engaging learning environments. Studies indicate that classrooms with intentional design and high-quality instructional supports lead to improved cognitive and social outcomes for young children (Mashburn et al., 2008). Effective pre-K materials should provide guidance on classroom setup, routines, and instructional strategies that foster student engagement and participation. Furthermore, materials that incorporate culturally relevant content and diverse learning experiences contribute to a more inclusive and equitable learning environment (Gay, 2018). By prioritizing engagement and fostering a supportive classroom atmosphere, pre-K instructional materials can enhance children's learning experiences and set a strong foundation for future academic success.

Criterion 3.1	**Learning Environment** Curriculum materials foster a classroom environment that supports engagement and learning.
Indicator 3.1a	Curriculum materials support a classroom system and physical environment that are developmentally appropriate, child-centered, and engaging.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide clear guidance on creating a classroom schedule that is developmentally appropriate, engaging, and child-centered. • Materials include clear guidance on creating/designing a physical environment that is developmentally appropriate, child-centered, and engaging. • Materials provide a well-developed rationale and/or research on the importance of the physical environment and classroom schedule. • Materials provide clear guidance on structuring classroom experiences to include child-led activities, teacher-led activities, and individual activities. • Materials include a variety of sample schedules, guidelines, routines, and other supporting materials. • Materials include robust suggestions for systems that maximize engagement and support child autonomy in many of the following: classroom jobs, routines, transitions, and circle time	• Materials provide guidance on creating a classroom schedule, but attention is not given to how the schedule is developmentally appropriate, engaging, and child-centered. • Materials include some guidance on creating/designing a physical environment that is developmentally appropriate, child-centered, and engaging. • Materials provide a rationale and/or research on the importance of the physical environment and/or classroom schedule. • Materials provide some guidance on structuring classroom experiences to include some but not all of the following types of activities: child-led, teacher-led, and individual activities. • Materials include some sample schedules, guidelines, routines, or other supporting materials. • Materials include some suggestions for systems that maximize engagement and support child autonomy in some of the following: classroom jobs, routines, transitions, and circle time routines. • Materials sometimes prioritize	• Materials provide limited guidance on creating a classroom schedule. • Materials include limited guidance on creating/designing a physical environment. • Materials do not provide a rationale and/or research on the importance of the physical environment or the classroom schedule. • Materials provide limited guidance on structuring classroom experiences. • Materials include a few sample schedules, guidelines, routines, or other supporting materials. • Materials include limited suggestions for systems that maximize engagement and support child autonomy. • Materials rarely prioritize key aspects of the physical environment, including safety and responsiveness. • Materials rarely offer recommendations for ways to arrange the furnishings within the physical space of the classroom. • Materials rarely offer recommendations on what to include or how to display environmental print.

routines. ● Materials routinely prioritize key aspects of the physical environment to include safety and responsiveness to support independence, choice, and development. ● Materials offer recommendations for ways to arrange the furnishings within the physical space of the classroom. ● Materials offer clear recommendations on what to include and how to display environmental print, such as signs, child-created work, and other learning visuals.	key aspects of the physical environment, including safety and responsiveness. ● Materials inconsistently offer recommendations for ways to arrange the furnishings within the physical space of the classroom. ● Materials offer some recommendations on what to include or how to display environmental print.	

Purpose and Research

High-quality early childhood environments play a crucial role in supporting children's cognitive, social-emotional, and physical development, as they provide opportunities for exploration, problem-solving, and interaction (Copple & Bredekamp, 2009). Studies indicate that a well-designed classroom—one that is organized into learning centers, provides hands-on materials, and encourages movement—promotes engagement, autonomy, and intrinsic motivation (Gerde, Schachter, & Wasik, 2013). Additionally, a flexible and structured daily schedule that balances teacher-directed and child-initiated activities supports self-regulation, attention, and overall learning outcomes (Connor et al., 2010).

Research highlights that developmentally appropriate environments foster meaningful learning experiences by integrating play with academic content. Play-based, child-centered curricula have been shown to enhance language development, executive functioning, and early literacy and numeracy skills (Hirsh-Pasek et al., 2009). When children have access to well-designed materials and a schedule that allows for extended exploration, they develop critical thinking skills and a sense of ownership over their learning (Lillard, 2013).

Evidence Collection

Classroom systems and physical environment include the following key areas:

- *Classroom Systems*
  - Materials provide guidance on creating a classroom schedule that maximizes children's engagement with learning experiences and supports autonomy.

    - Materials provide guidance on structuring classroom experiences to include child-led activities, teacher-led activities, and individual activities.
    - Materials include suggestions for systems that maximize engagement and support child autonomy, such as classroom jobs where children have responsibilities.
- *Physical Environment*
    - Materials prioritize key aspects of the physical environment to include safety and responsiveness to support independence, choice, and development.
    - Materials offer recommendations for the types of and ways to arrange the furnishings within the physical space of the classroom.
    - Materials make suggestions to support educators in aligning the physical environment with the curriculum structure (e.g., collaborative spaces, center areas, whole group meeting area, meal time areas, independent work areas)
    - Materials offer recommendations of what to include and how to display environmental print, such as signs, child-created work, and other learning visuals.

Gathering evidence for the Calibration Meeting:

- Do the materials include clear guidance on creating/designing a physical environment?
- Does the physical environment suggested support a developmentally appropriate, child-centered, and engaging classroom?
- Is a rationale and/or research provided on the importance of the physical environment?
- Are the guidelines for the physical environment adaptable to various contexts?
- Do the materials include sample schedules, guidelines, routines, or other supporting materials?
- Do the materials suggest a schedule and/or routine that supports a developmentally appropriate, engaging, and child-centered classroom?
- Is a rationale and/or research provided on the importance of the daily schedule?
- Are the guidelines for the schedule adaptable to various contexts?

Criterion 3.1	**Learning Environment** Curriculum materials foster a classroom environment that supports engagement and learning.
Indicator 3.1b	Curriculum materials include a range of manipulatives, resources, tools, and suggested 'found' materials to enhance learning.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include a clear description of the curriculum's approach to materials and manipulatives. • Materials include multiple examples of materials and manipulatives needed to optimize learning. • Materials needed for each learning experience are clearly described. • Materials needed for learning experiences easily accessible to most communities. • Materials suggest a variety of manipulatives that align with activities and learning goals. • Materials regularly leverage 'found' objects to support learning • Suggested materials are culturally responsive to include the languages, experiences, and cultures of children and families. • Materials regularly make connections between materials used at school and at home.	• Materials include a vague description of the curriculum's approach to materials and manipulatives. • Materials include some examples of materials and manipulatives needed to optimize learning. • Materials needed for each learning experience are vaguely described. • Materials needed for learning experiences are easily accessible to only some communities. • Materials suggest manipulatives that align with activities and learning goals. • Materials sometimes leverage 'found' objects to support learning. • Suggested materials are culturally responsive to include the languages, experiences, and/or cultures of children and families. • Materials sometimes make connections between materials used at school and at home.	• Materials do not include a description of the curriculum's approach to materials and manipulatives. • Materials do not include examples of materials and manipulatives needed to optimize learning. • Materials needed for each learning experience are not described. • Materials needed for learning experiences are not easily accessible. • Materials suggest manipulatives that are not aligned with activities and learning goals. • Materials rarely leverage 'found' objects to support learning. • Suggested materials are not culturally responsive. • Materials rarely make connections between materials used at school and home.

Purpose and Research

Young children learn best through hands-on, sensory-rich experiences that allow them to explore, manipulate, and experiment with materials in meaningful ways (Piaget, 1952). Manipulatives—such as blocks, puzzles, and counters—support cognitive development by helping children build problem-solving skills, spatial awareness, and early math concepts (Clements & Sarama, 2014). Additionally, research indicates that open-ended materials, including "found" objects like cardboard tubes, buttons, and natural elements, foster creativity, curiosity, and critical thinking by encouraging children to repurpose and explore materials in innovative ways (Drew et al., 2008).

Studies highlight that the availability of diverse learning tools strengthens engagement and accommodates different learning styles. For example, hands-on materials support fine motor development and provide concrete experiences that help bridge abstract concepts in literacy, science, and math (Montague-Smith & Price, 2012). Integrating a variety of resources into the curriculum also enhances social-emotional learning by promoting collaboration and communication as children work together to build, design, and solve problems (Vygotsky, 1978). By ensuring curriculum materials include a rich array of manipulatives, tools, and everyday objects, educators create an environment that nurtures exploration, discovery, and meaningful learning experiences for preschoolers.

Evidence Collection

Manipulatives and materials include the following key areas:

- *Manipulatives*
    - The curriculum includes examples of the materials and manipulatives needed to optimize learning (e.g., counting bears, linking cubes, shape blocks, wooden blocks)
    - The curriculum suggests a variety of manipulatives that align with activities and learning goals (e.g., specific materials to include in suggested centers)
- *Materials*
    - The curriculum leverages ‘found’ materials (e.g., things that are easily found in nature or common places) to support learning.
    - The curriculum suggests materials that are culturally responsive to include the languages, experiences, and cultures of children and families (e.g., relevant picture books, multicultural skin tone construction paper)

Gathering evidence for the Calibration Meeting:

- Do the materials include a description of the curriculum’s approach to materials and manipulatives?
- Does the curriculum include examples of materials and manipulatives needed to optimize learning?
- Are the materials needed for each learning experience clearly described?
- Are the materials needed for learning experiences easily accessible (e.g., low cost, easy to find, already in use) to most communities?
- Does the curriculum include potential adaptations to materials that may be difficult to find?

- Does the curriculum leverage ‘found’ materials that can easily be found in nature or the home environment?
- Does the curriculum make connections between materials used at school and at home?
- Does the curriculum provide adaptations for materials that may pose challenges for students with disabilities or differing sensory needs?
- Do the materials and manipulatives (including ‘found’ materials) suggested enhance the learning experiences for students?

Criterion 3.2

Intentional Teaching
Curriculum materials build on and advance learning by providing engaging, developmentally-appropriate, multi-modal experiences in diverse instructional settings.

Purpose and Research

A large body of research supports the idea that high-quality pre-K instructional materials should build on children's prior knowledge, engage them through developmentally appropriate and multi-modal activities, and offer instruction across diverse settings. According to the National Research Council (2001), young children construct new knowledge by connecting it to what they already know. This principle is foundational in early childhood education, emphasizing the importance of activating and building upon children's existing experiences and cultural backgrounds to support meaningful learning. When instructional materials recognize and incorporate children's prior knowledge, they foster deeper understanding and engagement.

Developmentally appropriate practices are also well supported in the literature. The National Association for the Education of Young Children (NAEYC, 2020) emphasizes that learning in early childhood should be active, hands-on, and play-based. Multi-modal learning—engaging children through visual, auditory, kinesthetic, and tactile experiences—is particularly effective in pre-K settings, as it aligns with how young children naturally explore and make sense of their environment (Hirsh-Pasek et al., 2009). These experiences not only support cognitive development but also social, emotional, and physical growth.

Finally, research shows that diverse instructional settings—including small groups, whole-class, individual, and play-based learning—are crucial for supporting the varied needs and learning styles of young children. Pianta et al. (2009) highlight that flexibility in instructional formats allows teachers to provide targeted support and scaffold learning effectively. Furthermore, integrating content across domains in various settings supports holistic development and better prepares children for future academic success. Taken together, these findings underscore the importance of designing pre-K instructional materials that are culturally responsive, engaging, multi-modal, and adaptable to multiple instructional contexts.

Criterion 3.2	**Intentional Teaching** Curriculum materials build on and advance learning by providing engaging, developmentally-appropriate, multi-modal experiences in diverse instructional settings.
Indicator 3.2a	Curriculum materials intentionally leverage a mixture of direct instruction, open-ended, experiential, and play-based learning experiences.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include clearly structured, teacher-led lessons designed to explicitly teach specific skills/concepts. • Materials provide explicit modeling steps and guided practice for teachers to demonstrate skills/concepts. • Materials encourage students to engage in open-ended learning by providing teachers with robust guidance on prompting discussion and questioning. • Materials provide children with robust opportunities to choose from and explore a variety of materials. • Materials include a robust range of activities that support problem-solving to understand the world. • Materials encourage students to engage in experiential learning by offering guided opportunities to experiment, design, and create. • Materials encourage students to engage in play-based learning by offering opportunities for free and guided play. • Materials provide robust guidance for the teacher in creating, observing, and guiding	• Some lessons are teacher-led but lack clear structure or intentional skill instruction. • Materials suggest teacher modeling and guided practice, but do not include examples. • Materials encourage students to engage in open-ended learning by providing teachers with some guidance on prompting discussion and questioning. • Materials provide children with some opportunities to choose from and explore a variety of materials. • Materials include a moderate range of activities that support problem-solving to understand the world. • Materials provide students with some support to learn through experimentation and exploration. • Materials provide some support for students to engage in play-based learning by offering free and guided play, though opportunities or guidance may be lacking. • Materials provide moderate guidance for the teacher in creating, observing, or guiding	• Lessons are primarily child-directed or exploratory, with no structure or teacher-led components. • Materials do not include teacher modeling and guided practice. • Materials largely do not encourage students to engage in open-ended learning. • Materials provide children with few opportunities to choose from and explore a variety of materials. • Materials include few activities that support problem-solving to understand the world. • Materials do not support students in engaging in experiential learning. • Materials provide limited opportunities for students to engage in play-based learning. • Materials provide minimal guidance for the teacher in creating, observing, or guiding agentic learning opportunities.

agentic learning opportunities.	agentic learning opportunities.	

Purpose and Research

Research strongly supports the integration of multiple modes of learning (e.g., open-ended, experiential, and play-based learning in pre-K) instructional materials as a means of fostering cognitive, social, and emotional development. Play-based learning allows children to explore concepts in a hands-on and meaningful way, which enhances their ability to retain and apply new knowledge. According to Hirsh-Pasek et al. (2009), guided play and open-ended exploration support deeper learning by engaging children's curiosity and promoting problem-solving skills. When children have opportunities to engage in experiential learning, they construct knowledge actively rather than passively receiving information, making learning more effective and developmentally appropriate (Piaget, 1952). Play-based approaches also encourage intrinsic motivation, as children become more engaged in learning when they are allowed to explore topics in a way that is meaningful to them.

Furthermore, research highlights the social benefits of play-based learning, particularly in fostering collaboration, communication, and self-regulation skills. Vygotsky's (1978) sociocultural theory emphasizes that learning occurs through social interactions, and play provides a natural context for children to develop these critical interpersonal skills. Open-ended play supports language development as children negotiate roles, share ideas, and express themselves in imaginative scenarios (Weisberg, Zosh, Hirsh-Pasek, & Golinkoff, 2013). Additionally, experiential learning allows for differentiated instruction, as children engage with materials and concepts at their own pace, accommodating diverse learning styles and developmental levels (Bodrova & Leong, 2007).

Evidence Collection

This indicator includes the following key areas:

- *Direct instruction*
  - Activities that are structured and teacher-led with the intention of explicitly teaching skills and concepts
  - Activities that include teacher modeling and then follow with guided practice, in which the teacher can guide and support children as they practice skills or concepts, and provide children with immediate feedback.
  - Activities may be scripted and include clear, direct language for teachers to use to teach concepts and skills.
- *Open-ended*
  - Activities provide children with opportunities to explore materials in unstructured ways.
  - Activities invite children to choose how to use and learn from materials
  - Activities encourage children to problem solve to understand and organize their world
  - Materials support teachers in initiating discussion with children through questioning (e.g., asking how and why questions)
- *Experiential*
  - Activities that invite active and agentic child participation with real-world connections
  - Activities that allow children to learn and explore ideas by “doing” (e.g., mixing paint colors, making

bubbles in soapy water by blowing into a straw)

- *Play-based*
    - Materials allow children to explore and discover in various types of activities (e.g., free play, outdoor play, dramatic play)
    - Materials support the teacher's role in creating agentic learning opportunities, observing children, and acting as guides in play or learning.

Gather evidence for the Calibration Meeting:

- Are there structured, teacher-led activities that are clearly designed to teach specific skills or concepts, including clear teacher guidance and language?
- Do the materials include teacher modeling and guided practice (with scaffolding and feedback) of a skill/concept before children are expected to practice it?
- Do the materials encourage students to engage in open-ended learning by including teacher guidance that supports discussion and including opportunities for children to problem solve and explore?
- Do the materials encourage students to engage in experiential learning by offering guided opportunities to experiment, design, and create?
- Do the materials encourage students to engage in play-based learning by offering opportunities for free and guided play?
- Do materials support the teacher in creating agentic learning opportunities, including observing and acting as a guide in learning or play?

Criterion 3.2	**Intentional Teaching** Curriculum materials build on and advance learning by providing engaging, developmentally-appropriate, multi-modal experiences in diverse instructional settings.
Indicator 3.2b	Curriculum materials include a range of engaging and developmentally-appropriate experiences that build on and advance student learning.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust activities and resources that encourage students to activate or share their prior knowledge, with teacher guidance and support. • Materials include robust opportunities for students to make connections between their existing knowledge and new content. • Materials incorporate a robust range of learning modalities in learning activities. • Materials provide a robust and meaningful balance of instructional settings (e.g., whole group, small group, and individualized instruction). • Materials provide robust opportunities for social interactions and collaboration and offer opportunities for students to engage in a variety of ways. • Materials provide robust support for agentic learning by allowing children to initiate, extend, and support their own learning.	• Materials include moderate activities and resources that encourage students to activate or share their prior knowledge, with some teacher guidance and support. • Materials include moderate opportunities for students to make connections between their existing knowledge and new content. • Materials incorporate a moderate range of learning modalities in learning activities. • Materials provide a moderate balance of instructional settings (e.g., whole group, small group, and individualized instruction). • Materials provide moderate opportunities for social interactions and collaboration and offer some opportunities for students to engage in a variety of ways. • Materials provide some support for agentic learning by occasionally allowing children to initiate, extend, and support their own learning.	• Materials include minimal activities and resources that encourage students to activate or share their prior knowledge. • Materials include minimal opportunities for students to make connections between their existing knowledge and new content. • Materials incorporate a minimal range of learning modalities in learning activities. • Materials do not provide a balance of instructional settings (e.g., whole group, small group, and individualized instruction). • Materials provide minimal opportunities for social interactions and collaboration, or do not offer opportunities for students to engage in a variety of ways. • Materials provide limited support for agentic learning by occasionally allowing children to initiate, extend, and support their own learning.

Purpose and Research

Research indicates that young children learn best through active, hands-on experiences that are meaningful and engaging (NAEYC, 2020). Developmentally appropriate activities should align with children's cognitive, social, emotional, and physical abilities, providing opportunities for exploration, creativity, and problem-solving. According to Piaget's (1952) theory of cognitive development, children in the preoperational stage learn through play, imitation, and hands-on experiences. When instructional materials include a variety of activities such as storytelling, manipulatives, music, movement, and dramatic play, children are more likely to develop essential foundational skills in language, literacy, math, and social-emotional learning (Copple & Bredekamp, 2009).

In addition, research highlights the importance of multisensory and differentiated instruction to meet the diverse needs of pre-K learners (Tomlinson, 2014). Children develop at different rates, and engaging activities should allow for individualized learning paths. Studies show that when children are actively involved in their learning through structured and open-ended activities, they demonstrate greater motivation, persistence, and cognitive growth (Bodrova & Leong, 2007). The inclusion of both teacher-guided and child-initiated activities in instructional materials helps create a balanced learning environment that fosters independence while ensuring exposure to key academic and social concepts. Furthermore, research supports the idea that hands-on, engaging activities contribute to long-term retention and transfer of knowledge, setting the foundation for future academic success (Hirsh-Pasek et al., 2009).

Pre-K instructional materials should encourage teachers to build on and connect to children's experiences and knowledge, as this approach fosters meaningful learning and cognitive development. Research supports the idea that children learn best when new information is linked to their existing knowledge and experiences. Piaget's (1952) theory of constructivism emphasizes that young children actively construct understanding through interactions with their environment. By integrating familiar contexts and real-world experiences into instructional materials, educators can enhance engagement and deepen comprehension. Studies have shown that when early learning environments acknowledge and incorporate children's backgrounds, language, and cultural experiences, students demonstrate higher levels of motivation and participation (Gonzalez et al., 2005).

Furthermore, Vygotsky's (1978) sociocultural theory underscores the role of social interactions and cultural context in cognitive development. When teachers use instructional materials that connect to children's home lives, interests, and prior knowledge, they create opportunities for meaningful dialogue and scaffolded learning experiences. Research by Moll et al. (1992) on funds of knowledge highlights the importance of recognizing the rich experiences children bring from home, suggesting that instruction grounded in familiar contexts supports deeper learning and retention. Additionally, research by Neuman and Celano (2012) indicates that early exposure to print and literacy experiences within a child's environment significantly contributes to language and literacy development. By encouraging teachers to draw upon children's lived experiences, pre-K instructional materials can foster an inclusive and responsive learning environment that supports academic and social-emotional growth.

Evidence Collection

This indicator includes the following key areas:

- *Building on prior knowledge*
    - Materials guide teachers to help children make connections between their existing knowledge and new content (e.g., brainstorming, list making, graphic organizers)
    - Materials, including lesson plans, encourage open-ended questions to support children in sharing their experiences (e.g., “When have you…” or “Have you ever…”, followed by “Tell us more…”)
    - Materials include suggestions for incorporating objects, books, and other items from children’s home life and real-world experiences (e.g., store, restaurant) that may build upon prior knowledge.
- *Developmentally-appropriate experiences*
    - Learning experiences are varied (e.g., storytelling, manipulatives, music, movement, and dramatic play) and incorporate various learning modalities (e.g., visual, auditory, kinesthetic, tactile) to support different learning styles.
    - Experiences encourage social interactions and collaboration among children during group play and activities.
    - Experiences encourage agentic learning by allowing children to initiate, extend, and support their own learning.

Gathering evidence for the Calibration Meeting:

- Do the materials encourage students to activate or share their prior knowledge, with teacher support and guidance?
- Do the materials encourage students to make connections between their existing knowledge and new content?
- Do the materials incorporate a range of modalities (e.g., visual, auditory, kinesthetic, and tactile) in support of learning?
- Do the materials provide a balance of instructional settings (e.g., whole group, small group, and individualized instruction)?
- Do the materials encourage social interactions and collaboration, and offer opportunities for students to engage in a variety of ways?
- Do the materials encourage agentic learning by allowing children to initiate, extend, and support their own learning?

Criterion 3.2	**Intentional Teaching** Curriculum materials build on and advance learning by providing engaging, developmentally-appropriate, multi-modal experiences in diverse instructional settings.
Indicator 3.2c	Curriculum materials include opportunities for diverse instructional settings and structures.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust and varied whole-group activities that bring the entire class together in ways that are interactive, inclusive, and thoughtful. • Materials include robust and varied small-group learning activities with teacher guidance and peer interaction. • Materials include robust and meaningful individualized instructional opportunities targeted towards an individual student's skills, interests, or development. • Materials include robust support for implementing predictable routines that support consistency and stability, while cultivating independence. • Materials include robust support for structuring efficient and smooth transitions that include opportunities for learning and engagement.	• Materials include some whole-group activities that bring the entire class together in ways that are interactive, inclusive, and thoughtful. • Materials include some small group learning activities with teacher guidance and peer interaction. • Materials include some individualized instructional opportunities targeted towards an individual student's skills, interests, or development. • Materials include some support for implementing predictable routines that support consistency and stability, while cultivating independence. • Materials include some support for structuring efficient and smooth transitions that include opportunities for learning and engagement.	• Materials include few or poor-quality whole-group activities that bring the entire class together in ways that are interactive, inclusive, and thoughtful. • Materials include few or poor-quality small group learning activities with teacher guidance and peer interaction. • Materials include few or poor-quality individualized instructional opportunities targeted towards an individual student's skills, interests, or development. • Materials include minimal support for implementing predictable routines that support consistency and stability, while cultivating independence. • Materials include minimal support for structuring efficient and smooth transitions that include opportunities for learning and engagement.

Purpose and Research

Research strongly supports the inclusion of diverse instructional settings and structures in high-quality pre-kindergarten (pre-K) curriculum materials. High-quality curricula support teaching content to young children mainly in playful contexts, ranging from intentional small- and large-group and individual work, to everyday routines, to child-initiated play and teachable moments (Diamond et al., 2013). Content instruction includes both incidental and intentional approaches. The Center on the Social and Emotional Foundations for Early Learning (CSEFEL) emphasizes that well-structured daily schedules and transitions help preschoolers feel secure, reduce behavioral challenges, and support learning by providing predictable expectations throughout the day (CSEFEL, 2005). Curricula can support teachers in ensuring that classroom experiences promote learning and development and minimize time wasted in passive experiences, such as waiting during transitions between activities (Early et al., 2010; La Paro et al., 2009).

Further supporting this, evidence shows that consistent routines are linked to better socioemotional development. Spagnola and Fiese (2007) found that stable routines—like meal times and structured play—contribute to children's emotional regulation and attention, both of which are crucial for early learning. Together, this body of research suggests that high-quality pre-K curricula should not only provide academic content but also be intentionally designed to support different learning contexts. This includes leveraging whole-group instruction for shared experiences, small-group settings for differentiated learning, and routines and transitions as structured, teachable moments that promote self-regulation, engagement, and readiness to learn.

Evidence Collection

<u>This indicator includes the following key areas:</u>

- Groupings
    - Whole group learning activities that bring the entire class together and are often designed to be interactive or include games that promote collaboration, following directions, or problem solving (e.g., circle time with book reading and discussion or movement and dance time where children play "Hot Potato")
    - Small group learning activities that include a small number of children in short, focused lessons or hands-on experiences with teacher guidance and peer interaction (e.g., a math game with dice and counting bears or a science experiment to test if objects sink or float)
    - Individualized instruction opportunities that are specifically designed to support a particular child's skills, interests, or development, often to provide the resources and engagement to help them reach a specific goal or skill (e.g., creating a sheet with lines of various lengths that a child who is working on proficiency with scissors can practice cutting)
- Routines
    - Materials include support for implementing predictable routines for consistency and stability in the classroom, cultivating independence (e.g., handwashing routines with soap and paper towels easily accessible)
- Transitions

- Materials include support for structuring efficient, smooth transitions between activities, with opportunities for learning and engagement (e.g., dismissal from the whole group to learning centers by stating, “If your name begins with the letter B, stand up and choose a center”)

Gathering evidence for the Calibration Meeting:

- Do the materials include whole group activities that bring the entire class together in ways that are interactive, inclusive, or focused on problem solving or following directions?
- Do the materials include small group learning activities with teacher guidance and peer interaction?
- Do the materials include individualized instructional opportunities targeted towards an individual student’s skills, interests, or development?
- Do the materials include support for implementing predictable routines that support consistency and stability, while cultivating independence?
- Do the materials include support for structuring efficient and smooth transitions that include opportunities for learning and engagement?

Criterion 3.3

Assessment
Curriculum materials include opportunities for student assessment and resources for teacher response to assessment.

Purpose and Research

Pre-K instructional materials should incorporate opportunities for student assessment and provide resources to help teachers respond effectively to assessment data. Research indicates that early assessment plays a crucial role in understanding young children's developmental progress and informing instructional strategies (Snow & Van Hemel, 2008). High-quality early childhood assessments allow educators to monitor children's growth in key areas such as language, literacy, and social-emotional development, ensuring that instruction is responsive to their evolving needs (National Research Council, 2008). Formative assessments, in particular, provide real-time insights into student learning, allowing teachers to adjust instructional approaches and offer targeted support (Shepard, Kagan, & Wurtz, 1998).

In addition to providing assessment opportunities, pre-K instructional materials should equip educators with resources to interpret and act on assessment results. Effective materials include observational tools, checklists, progress monitoring guides, and instructional recommendations based on assessment data (Buysse & Peisner-Feinberg, 2013). Research underscores that teachers who receive support in using assessment data can better differentiate instruction and create individualized learning experiences that address student strengths and challenges (Black & Wiliam, 2009). Furthermore, ongoing assessment helps identify children who may need additional interventions, enabling early support that fosters long-term academic success (Halle, Zaslow, Wessel, Moodie, & Darling-Churchill, 2011). By integrating assessment opportunities and providing guidance for teachers on responding to student data, pre-K instructional materials can enhance the effectiveness of early learning experiences and improve outcomes for young children.

Criterion 3.3	**Assessment** Curriculum materials include opportunities for student assessment and resources for teacher response to assessment.
Indicator 3.3a	Curriculum materials include multiple, varied assessment opportunities to assess student progress.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include a robust range and variety of developmentally-appropriate formative assessments designed to guide instruction. • Materials include a robust range and variety of developmentally-appropriate summative assessments designed to assess learning. • Assessment opportunities prioritize authentic, curriculum-embedded assessments to understand student learning and progress. • Materials provide robust support for teachers to administer assessments with consistency and efficacy. • Materials provide meaningful and robust opportunities and suggestions for how to accommodate and adapt assessments to student needs.	• Materials include a moderate range and variety of developmentally- appropriate formative assessments that may help guide instruction. • Materials include a moderate range and variety of developmentally- appropriate summative assessments that may support the assessment of learning. • Assessment opportunities include some curriculum-embedded assessments to understand student learning and progress. • Materials provide some support for teachers to administer assessments with consistency and efficacy. • Materials provide some moderate opportunities and suggestions for how to accommodate and adapt assessments to student needs.	• Materials include few or poor-quality formative assessments. • Materials include a minimal range and variety of summative assessments. • Materials include few or poor-quality authentic, curriculum-embedded assessments. • Materials provide minimal or no support for teachers to administer assessments with consistency and efficacy. • Materials provide few or poor-quality opportunities and suggestions for how to accommodate and adapt assessments to student needs.

Purpose and Research

Research emphasizes the importance of curriculum materials incorporating multiple, varied assessment opportunities to effectively inform instruction and assess pre-K students' learning and growth. Young children develop at different rates and demonstrate their understanding in diverse ways, making it essential to use a range of assessment methods, including observational checklists, performance-based tasks, portfolios, and formative

assessments, to gain a comprehensive picture of their progress (Snow & Van Hemel, 2008). Authentic assessments, such as documenting children's interactions, play, and project work, provide meaningful insights into their cognitive, social-emotional, and motor development while allowing educators to tailor instruction to meet individual needs (NAEYC, 2020).

Additionally, research suggests that ongoing, developmentally appropriate assessments support early learning by identifying strengths and areas for growth, rather than relying solely on standardized tests that may not capture the full scope of young children's abilities (Shepard, Kagan, & Wurtz, 1998). Formative assessments embedded within everyday classroom activities help teachers adjust instruction in real-time, ensuring that learning experiences remain responsive and engaging (Black & Wiliam, 2009). When curriculum materials include varied assessment opportunities, educators can better track student progress, make informed instructional decisions, and support each child's development in a way that aligns with best practices in early childhood education.

Evidence Collection

Varied assessment opportunities include the following key areas:

- *Formative assessment*
  - Curriculum includes recommendations for formative assessment or ongoing, informal, curriculum-embedded opportunities to observe and document children's progress, using tools that are aligned with goals and experiences.
- *Summative assessment*
  - Curriculum includes recommendations or materials to conduct summative assessment or ways to evaluate learning or progress at the end of a unit or specific period of time, using tools that are aligned with goals and experiences.
- *Assessment examples, prioritizing authentic and curriculum-embedded opportunities*
  - Anecdotal and observational records
  - Documenting conversations or experiences with photographs, descriptions, etc
  - Checklists
  - Work samples or portfolios
  - Rating scales
  - Norm-referenced and/or standardized tests (e.g., ASQ-3)
- *Assessment accommodations*
  - Materials support teachers with selecting assessment tools and/or multiple assessment opportunities, depending on the needs of the children in their classroom.
  - Materials give suggestions on ways to accommodate the diverse range of learners found in a pre-K classroom when administering assessments (e.g.large print text, stories in multiple languages)
  - Materials give suggestions for how to adapt assessment implementation (e.g., whole group vs. individual)
  - Assessment tools reflect a consideration of multilingual learners' language development.

Gathering evidence for the Calibration Meeting:

- Do the materials include developmentally-appropriate formative assessments that can be used to guide instruction?
- Do the materials include a range and variety of formative assessment types, with an adequate supply of assessments to ensure consistent understanding of student progress?
- Do the materials include developmentally-appropriate summative assessments that can be used to guide instruction and assess learning?
- Do the materials include a range and variety of summative assessment types, with an adequate supply of assessments to ensure consistent understanding of student learning?
- Do the assessment opportunities prioritize authentic, curriculum-embedded assessments to understand student learning and progress?
- Do the materials provide support for teachers to select and administer formative and summative assessments?
- Do the materials provide opportunities and suggestions for how to accommodate and adapt assessments to student needs?

Criterion 3.3	**Assessment** Curriculum materials include opportunities for student assessment and resources for teacher response to assessment.
Indicator 3.3b	Curriculum materials support teachers in using and communicating assessment results.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials provide robust support for teachers in interpreting assessment items and results. • Materials provide robust support for teachers in responding to assessment results through instructional modifications. • Materials provide robust tools to ensure families can access and understand student progress and learning. • Materials related to assessment are easy to use and implement.	• Materials provide some support for teachers in interpreting assessment items and results. • Materials provide some support to teachers in responding to assessment results through instructional modifications. • Materials provide some resources to ensure families can access and understand student progress and learning, but they may be incomplete or lack quality. • Materials related to assessment are moderately easy to use and implement.	• Materials provide limited support for teachers in interpreting assessment items and results. • Materials provide limited support to teachers in responding to assessment results through instructional modifications. • Materials provide limited resources to ensure families can access and understand student progress and learning. • Materials related to assessment are not easy to use and implement.

Purpose and Research

Research highlights the importance of curriculum materials incorporating a system to share progress with families, as strong family engagement is a key factor in children's early learning and long-term academic success. When families receive regular, meaningful updates about their child's development through conferences, portfolios, digital reports, or informal discussions, they are better equipped to support learning at home and collaborate with educators (Epstein, 2011). Studies show that transparent communication about children's progress fosters stronger parent-teacher relationships, leading to improved social-emotional and academic outcomes for young learners (Henderson & Mapp, 2002).

Research emphasizes that developmentally appropriate progress-sharing methods, such as narrative assessments, work samples, and multimedia documentation, provide families with a more comprehensive understanding of their

child's growth than standardized reports alone (Gonzalez & Jackson, 2013). Digital tools and apps that facilitate real-time communication between teachers and parents have been shown to enhance engagement and responsiveness, strengthening the home-school connection (Walker et al., 2020). By embedding systematic and varied progress-sharing strategies into curriculum materials, educators create a collaborative learning environment where families play an active role in their child's education, reinforcing key skills beyond the classroom.

Evidence Collection

Using and communicating assessment results include the following key areas:

- *Analyzing Data*
  - Materials give teachers guidance on how to analyze data from formative and summative assessments to understand a child's current level of knowledge and skills.
- *Informing and Modifying Instruction*
  - Materials include teacher guidance on how to plan for and adjust activities based on assessment data.
- *Communicating Progress with Families*
  - Materials include guidance on ways to share progress with families (e.g., written reports, conferences, via email)
  - Materials include guidance on helping families understand their child's progress.
  - Materials support teachers to involve family members in integrated assessment by providing ways for teachers to tap into the resources and perspectives families have on their child's experience.

Gathering evidence for the Calibration Meeting:

- Do the materials provide support for teachers to interpret formative and summative assessments?
- Do the materials support teachers in using assessment results to understand overall student progress and learning?
- Do the materials support teachers in modifying instruction to respond to assessment results?
- Do the materials include a system to share student progress and learning with families?
- Do the materials include resources to help families understand assessment results?
- Do the materials offer guidance on best practices for communicating with families about assessment results?
- Are the assessment materials easy to use and implement?

Criterion 3.4

Implementation Support
Curriculum materials include tools and resources for understanding, executing, and monitoring program implementation.

Purpose and Research

Research emphasizes that well-structured materials with clear guidance enhance teacher effectiveness and program fidelity, leading to better student outcomes (Domitrovich et al., 2019). Providing educators with comprehensive resources, such as lesson plans, pacing guides, and materials to understand program design, ensures consistency in instructional delivery and helps align teaching practices with evidence-based strategies (Zaslow et al., 2010). These tools also support educators in differentiating instruction to meet the diverse needs of young learners, promoting inclusive and equitable learning experiences (Pianta, Barnett, Burchinal, & Thornburg, 2009).

Additionally, effective program implementation requires continuous monitoring and feedback mechanisms to assess progress and make necessary adjustments. Research suggests that ongoing assessment tools, including formative assessments, observational checklists, and teacher reflection guides, support data-driven decision-making and instructional improvements (Buysse & Peisner-Feinberg, 2013). When pre-K instructional materials integrate structured monitoring tools, educators can track student development in critical areas such as language, literacy, and social-emotional skills (National Institute for Early Education Research [NIEER], 2017) as well as their own implementation of the materials. Furthermore, providing teachers with professional learning communities and coaching resources enhances their ability to implement the curriculum effectively and adapt instructional strategies as needed (Schachter, 2015). By incorporating tools and resources for execution and monitoring, pre-K programs can maintain high implementation fidelity and optimize learning experiences for young children.

Criterion 3.4	**Implementation Support** Curriculum materials include tools and resources for understanding, executing, and monitoring program implementation.
Indicator 3.4a	Curriculum materials are educative, developing teacher understanding of program design and providing guidance for implementation support.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include a clear and robust explanation and rationale for the learning design and curriculum approach. • Materials include robust explanations and rationale of the learning design and approach for all the curriculum domains. • Materials provide robust explanations and examples of best practices and strategies to use the curriculum resources. • Materials provide robust and useful annotations, suggestions, and other guidance to support teachers' understanding and delivery of content. • Materials provide clear expectations and guidelines for teacher implementation that support teachers in teaching with flexibility and adaptability. • Materials offer a clear and robust expectation for teacher training needed for successful implementation.	• Materials include an explanation and rationale for the learning design and curriculum approach, but explanations may lack depth. • Materials include explanations and rationale of the learning design and approach, but explanations are missing for some domains. • Materials provide moderate explanations and examples of best practices and strategies to use the curriculum resources. • Materials provide some annotations, suggestions, and other guidance to support teachers' understanding and delivery of content. • Materials provide some expectations and guidelines for teacher implementation that support teachers in teaching with flexibility and adaptability, but they may lack clarity or robustness. • Materials offer some expectation for teacher training needed for successful implementation, but they may lack clarity or depth.	• Materials do not include an explanation or rationale for the learning design and curriculum approach. • Materials do not include explanations and rationale of the learning design and approach for many of the curriculum domains. • Materials provide minimal explanations and examples of best practices and strategies to use the curriculum resources. • Materials provide limited or no annotations, suggestions, and other guidance to support teachers' understanding and delivery of content. • Materials provide limited expectations and guidelines for teacher implementation, or guidance does not support teachers in teaching with flexibility and adaptability. • Materials provide limited guidance for the teacher training needed for successful implementation.

Purpose and Research

Pre-K instructional materials should provide a clear rationale for program design and offer implementation support to ensure fidelity, effectiveness, and positive outcomes for young learners. High-quality early childhood programs are most successful when educators understand not only *what* to teach but also *why* specific approaches are effective. A well-articulated rationale helps educators align their instruction with research-based best practices, ensuring that learning experiences are developmentally appropriate and grounded in evidence (National Institute for Early Education Research [NIEER], 2017). Additionally, providing structured implementation support such as professional development, coaching, and instructional guides enhances teacher confidence and effectiveness, leading to improved student engagement and learning outcomes (Zaslow et al., 2010).

Research also highlights that early childhood educators benefit from explicit guidance on how to integrate instructional materials effectively within diverse classroom settings. Studies indicate that pre-K teachers often vary in their training and experience levels, making it essential for instructional materials to include detailed frameworks, suggested teaching strategies, and assessment tools to support consistency in implementation (Weiland & Yoshikawa, 2013). When teachers receive ongoing support, they are better equipped to tailor instruction to meet the needs of all learners, including dual language learners and children with diverse learning needs (Hamre et al., 2017). Moreover, well-structured program design fosters greater program sustainability, as teachers who receive clear implementation guidelines are more likely to maintain fidelity to the curriculum while making informed adaptations as necessary (Pianta et al., 2009).

Furthermore, research suggests that instructional materials that include rationale and implementation guidance promote long-term educational equity. When educators have access to clearly defined program goals and structured instructional support, they can more effectively provide high-quality learning experiences to all students, regardless of socioeconomic background (Barnett et al., 2018). Instructional materials that emphasize evidence-based teaching practices, culturally responsive approaches, and inclusive learning strategies contribute to narrowing achievement gaps and ensuring that all children have a strong foundation for future academic success. By embedding rationale and implementation support into pre-K instructional materials, educators can deliver high-quality instruction that fosters meaningful, lasting learning experiences for young children.

Evidence Collection

Rationale for design and implementation support includes the following key areas:

- *Program design*
  - Materials include an explanation for learning and a program approach
  - Materials include how curricular domains are developed and incorporated into lessons and activities
- *Implementation*
  - Materials include best practices and strategies to utilize the resources (e.g., lesson plans, videos, and appendix)
  - Materials provide useful annotations and suggestions for how to present and deliver content.
  - Materials provide strong guidance and support for teaching effectively and sensitively

while being flexible and adaptable.
    - Materials include information regarding teacher training and professional development for various levels of teacher experience with the curriculum.

Gathering evidence for the Calibration Meeting:

- Do the materials include a clear explanation and rationale for the learning design and curriculum approach?
- Do the explanations and rationale included in the materials span all the curriculum domains?
- Do the materials provide best practices and strategies to use the curriculum resources (e.g., lesson plans, videos, etc.)?
- Do the materials provide useful annotations, suggestions, and other guidance to support teachers' understanding and delivery of content?
- Do the materials provide clear expectations and guidelines for teacher implementation that support teachers in teaching with flexibility and adaptability?
- Do the materials offer a clear expectation for teacher training needed for successful implementation?

Criterion 3.4	**Implementation Support** Curriculum materials include tools and resources for understanding, executing, and monitoring program implementation.
Indicator 3.4b	Curriculum materials provide guidance to support and evaluate implementation fidelity.

Scoring:

Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations
• Materials include robust information about effective curriculum implementation, including guidelines about how the curriculum should be implemented to achieve fidelity. • Materials offer robust guidance about how to evaluate an effective curriculum. implementation. • Materials offer robust guidance about how to reflect on and improve implementation of the curriculum. • Materials provided to support and assess the evaluation are robust and easy to use. • Materials provided offer robust support to ensure the fidelity of implementation.	• Materials include some information about effective curriculum implementation, but may not have robust guidelines. • Materials offer some guidance about how to evaluate effective curriculum implementation. • Materials offer some guidance about how to reflect on and improve implementation of the curriculum. • Materials provided to support and assess the evaluation are present • Materials offer some support to ensure fidelity of implementation.	• Materials include limited information about effective curriculum implementation. • Materials offer limited guidance about how to evaluate effective curriculum implementation. • Materials offer limited guidance about how to reflect on and improve implementation of the curriculum. • Materials provided to support and assess the evaluation are limited or difficult to use. • Materials provided to support fidelity of implementation are minimal or limited.

Purpose and Research

Research is clear that high-quality curricula are most effective when educators have clear frameworks, professional development opportunities, and assessment tools to ensure fidelity of use. Studies show that well-implemented curricula lead to stronger language, literacy, and social-emotional outcomes for preschoolers, but variability in teacher training and instructional support can impact effectiveness (Weiland & Yoshikawa, 2013). Research emphasizes that curriculum implementation guidance should include structured professional learning, ongoing coaching, and clear instructional strategies to help educators adapt materials to diverse classroom settings while maintaining evidence-based practices (Zaslow et al., 2010).

Research strongly supports the idea that pre-K instructional materials should provide explicit guidance for supporting and evaluating effective implementation, as high-quality early childhood education programs require

consistency, evidence-based practices, and ongoing assessment to maximize student outcomes. When instructional materials include clear implementation guidance, educators are better equipped to deliver developmentally appropriate instruction, maintain curriculum fidelity, and adapt strategies to meet diverse learning needs (Zaslow et al., 2010). Effective implementation support includes professional development, instructional coaching, and structured lesson plans that help teachers understand the rationale behind pedagogical approaches and how to apply them effectively (Pianta et al., 2009). Without such guidance, variations in instructional delivery can result in disparities in student learning experiences, reducing the overall impact of the curriculum (Weiland & Yoshikawa, 2013).

Additionally, research highlights the importance of incorporating evaluation tools within pre-K instructional materials to help educators monitor and refine their teaching practices. Formative and summative assessment measures, including observational checklists, self-reflection tools, and student progress monitoring frameworks, enable teachers to adjust instruction based on data-driven insights (Hamre et al., 2017). These evaluation tools ensure that educators can identify areas where additional support is needed, improving instructional effectiveness and student engagement. Studies have shown that early childhood educators who receive ongoing implementation support and access to evaluative frameworks demonstrate higher levels of instructional quality and student achievement (Barnett et al., 2018). Furthermore, providing structured feedback mechanisms within instructional materials fosters a culture of continuous improvement, ensuring that teachers refine their methods and align their instruction with best practices in early childhood education (National Institute for Early Education Research [NIEER], 2017).

Evidence Collection

Supports of curriculum fidelity include the following key areas:

- *Evaluation strategies*
  - Materials include guidance to determine effective implementation
  - Materials provide tools for teachers and administrators to evaluate the curriculum implementation (e.g., rubrics, checklists, documentation, observations)
- *Implementation support*
  - Materials provide resources and support for ongoing teacher training to be able to successfully reflect on implementation and make adjustments.
  - Materials offer suggestions on providing structured implementation feedback and resources, such as instructional coaching or other professional development.

Gathering evidence for the Calibration Meeting:

- Do the materials include information about effective curriculum implementation, including guidelines about how the curriculum should be implemented to achieve fidelity (e.g., dosage, setting)?
- Do the materials offer guidance about how to evaluate effective curriculum implementation (e.g., scripts, sample lesson videos, other materials)?
- Do the materials offer guidance about how to reflect on and improve implementation of the curriculum (e.g., reflection tools, coaching resources)?
- Are the materials provided to support and assess the evaluation robust and easy to use?
- Are there other materials to support fidelity of implementation?

Criterion 3.4	**Implementation Support** Curriculum materials include tools and resources for understanding, executing, and monitoring program implementation.
Indicator 3.4c	Curriculum materials integrate technology to support student learning.

NOT SCORED - NARRATIVE ONLY

Purpose and Research

Research supports the integration of technology in pre-K instructional materials to enhance student learning, engagement, and skill development. Digital tools, when used appropriately, provide interactive and multisensory experiences that help young children develop foundational literacy, numeracy, and problem-solving skills (Hirsh-Pasek et al., 2015). The National Association for the Education of Young Children (NAEYC, 2012) emphasizes that technology should be integrated in developmentally appropriate ways to supplement hands-on learning rather than replace traditional play-based experiences. Studies have shown that when technology is used intentionally, such as through interactive e-books, digital storytelling, and age-appropriate educational apps. It can strengthen language acquisition, early literacy skills, and social-emotional development by fostering engagement and individualized learning opportunities (Bus, Takacs, & Kegel, 2015).

Moreover, research indicates that technology integration in pre-K classrooms can support differentiated instruction by allowing educators to tailor content to meet the diverse needs of learners, including dual language learners and children with disabilities (Penuel, 2019). Adaptive learning software, for example, can provide immediate feedback and scaffolded support, helping children progress at their own pace while reinforcing key concepts (Zosh et al., 2017). Additionally, digital tools such as video modeling and virtual manipulatives have been shown to enhance mathematical reasoning and problem-solving abilities in young learners (Clements & Sarama, 2014). However, the effectiveness of technology in early childhood education depends on high-quality instructional materials that guide teachers in selecting and implementing technology purposefully within the curriculum. Professional development and training are also critical to ensuring that educators use technology effectively to enrich, rather than distract from, hands-on, inquiry-based learning experiences (Walsh et al., 2020).

By embedding research-based technology integration strategies into pre-K instructional materials, educators can create a balanced learning environment that supports cognitive, social-emotional, and language development. Technology should complement and extend traditional early childhood teaching methods, fostering interactive, engaging, and personalized learning experiences that set the foundation for future academic success. As digital literacy becomes increasingly essential in education and daily life, pre-K curricula that incorporate thoughtful and developmentally appropriate technology use can help prepare children for a technology-rich world while maintaining the core principles of early childhood education.

Evidence Collection

Integration of technology includes the following key areas:

- *Technology*
    - Materials include digital tools to enhance student learning experiences.
        - Online tools
        - Suggested apps
        - Suggested resources (videos, songs, etc.)

Gathering evidence for the Calibration Meeting:

- Are there digital tools that enhance student learning experiences?
- Are the digital tools of high quality?
- Are the digital tools developmentally appropriate?
- Do the digital tools supplement the curriculum in a meaningful way by offering students experiences or learning that would not be possible otherwise?
- Are clear guidelines included to offer teachers support in using digital tools?
- Do digital tools span the entire curriculum, or are they limited to specific domains?

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