

Incorporates 7 instructional practices with Tier 1 and Tier 2 evidence ratings, as identified by the Institute of Education Sciences and What Works Clearinghouse.

Exploretean

Comprehensive Early Childhood Instruction Developed Using Respected Research to Implement Evidence-Based Practices

Introduction

Explore & Learn is a research-based comprehensive curriculum for early childhood programs. It is designed to be implemented across various early childhood settings, such as half-day and full-day child care centers and preschool, prekindergarten, and transitional kindergarten classrooms. As a comprehensive program, *Explore & Learn* provides high-quality instructional materials that span 12 Learning Blocks: Morning Meeting, Literacy, Literacy Explorations, Physical Development, Phonological Awareness, Mathematics, Social Development, Fine Motor Development, Science or Social Studies, Creative Explorations, Music and Movement, and Closing Circle. Additionally, the program provides resources and ideas for implementing Free Play and Teacher-Choice Read-Alouds.

The materials and resources in *Explore & Learn* focus on creating developmentally appropriate learning experiences that engage students in the areas of cognitive, language, physical, and social development. Instruction is designed to build a strong foundation, enabling children to enter kindergarten as excited learners equipped with fundamental social and academic skills.



Contributing Authors and Consultants

Kim Carlton, M.Ed. Ashley Chu, M.Ed. Janet Eckart, M.Ed. Kris Hinrichsen, M.A.T. Carol Huey-Gatewood, M.A.Ed. Kimberly Russo Joseph, M.Ed. Jennifer Jump, M.A. Cynthia Malo, M.A.Ed. Sarah Massie, M.Ed. Kristin C. G. Miyamoto Whitney O'Connell, M.Ed. Kyra Ostendorf, M.Ed. Jennifer Prior, Ph.D. Vicki Shaughnessy, M.Ed. Jodene Lynn Smith, M.A. Kiersten Zimmerman, M.S.Ed.

The Logic Model

This Logic Model demonstrates how *Explore & Learn* is designed to prepare students for success in kindergarten and beyond. Evidence of this is suggested through its resources and activities, which are linked to positive outcomes for students. The goal of this table is to visualize how implementing *Explore & Learn* can support and contribute to achieving school and district goals.

Problem Statement: There is a need for comprehensive early childhood curriculum that addresses all domains of learning.

Outcome/Goal: To prepare children socially and academically for kindergarten and future academic success

Theory of Action						
Educators implement research-based <i>Explore</i> & <i>Learn</i> lessons and strategies.	Children engage in <i>Explore</i> & <i>Learn</i> content and strategies.	Children have their developmental needs met by caring adults in a supportive learning environment.	Children have increased social capacities and academic skills.	Children are prepared to enter kindergarten with the social and academic skills needed.	Children become confident learners who are eager to learn more.	
Logic Model						
Assumptions	Resources/Inputs	Activities	Outputs/Metrics	Outcomes	Impact	
 Early childhood programs are interested in and prepared to implement high-quality instructional materials. Young children are eager to learn. Structured lessons that follow a progression of learning help children develop fundamental skills. Engagement in experiences across learning blocks supports students in meeting learning goals. Engaging content, organized by themes, integrates learning across domains. 	 Management Guide with best practices and key research materials and lesson plans developed in collaboration with experts in the field Teacher's Guides with flexible daily lesson plans traditional, thematic, and wordless read-aloud books Student Activity Books with open-ended learning activities Vocabulary Concept Cards Social Story Posters Subitizing Cards Observation and Assessment Guide 18 Instructional Routine Cards read-along ebooks, interactive Social Development videos, and other digital learning resources Family Engagement Letters 	 daily lesson plans detailing instruction for 12 learning blocks lessons for a variety of instructional settings: whole group, small group, collaborative practice, and independent practice opportunities for playful learning exploration of essential questions multiple opportunities to practice learned skills learning through hands- on exploration suggestions for scaffolded support, language development support, free play, family connection, inquiry, and extension 	 student engagement across learning blocks developmental checklists and rubrics benchmark and formative assessments 	 content knowledge of a wide variety of topics related to self, people around them, and the world foundational skills in literacy and mathematics engagement in activities that promote development in social, physical, cognitive, and language domains confidence and preparedness for kindergarten 	 increased interest in learning among students creation of lifelong learners development of skills that promote prosocial relationships increased equity 	

Guiding Principles

Early childhood education is a vital part of a child's development. Young children are eager to learn. They find joy in gaining knowledge about themselves, the people around them, and the world. Early childhood instruction should capitalize on children's curiosity, excitement about discovering new things, and imagination. It should provide equitable opportunities that prepare all learners with the key foundational skills and knowledge needed for the exciting educational journey ahead. These guiding principles are the basis of *Explore & Learn* and are embedded throughout the program.

- → Children require intentionally planned, developmentally appropriate learning experiences in the areas of cognitive, language, physical, and social development.
- → Children benefit from a progression of learning that helps build fundamental skills while leaving room to account for the differing timelines at which they develop.
- → Children should be given opportunities to develop deep knowledge of the world around them by delving into themes that integrate academic disciplines.
- → Children learn through a mix of play, hands-on exploration, and direct instruction, with technology integration to enhance learning.
- → Children thrive when their teachers develop strong, caring, and safe relationships with them and their caregivers.
- → Children's progress toward learning goals should be closely monitored, with educators communicating with stakeholders and adjusting instruction accordingly.





Intentional and Developmentally Appropriate Learning Experiences

Intentionally Planning to Meet Learning Objectives

According to a panel convened by the Institute of Education Sciences, instruction should be intentionally planned to maximize impact during the instructional day (Burchinal et al. 2022). That is, teachers should have clear learning objectives, and they should lead activities that purposefully work toward those objectives. The panel also notes that intentional instruction includes repeated opportunities for practice. Children should have multiple opportunities to practice skills and apply their learning. To ensure intentional instruction, the panel recommends developing a schedule that devotes consistent time across areas of development. Building in time for different areas of development supports teachers in ensuring consistent instruction.

Intentional planning requires educators to be proactive and keep learning objectives in mind. However, it should not prevent teachers from following children's leads. Skilled teachers intentionally plan activities while also creating space for learning experiences led by children's interests, curiosity, and imagination.

Ensuring Developmentally Appropriate Practice

The National Association for the Education of Young Children (NAEYC) defines developmentally appropriate practice as "methods that promote each child's optimal development and learning through a strengths-based, play-based approach to joyful, engaged learning" (2020). Every aspect of a child's early childhood experience should be rooted in developmentally appropriate practice. At its core, developmentally appropriate practice means every child's learning and development is supported in a joyful learning environment that meets their individual needs and considers their unique cultural and linguistic backgrounds.

Addressing All Domains of Child Development

In their Developmentally Appropriate Practice Position Statement, NAEYC states that "all domains of child development-physical development, cognitive development, social and emotional development, and linguistic development (including bilingual or multilingual development), as well as approaches to learning-are important; each domain both supports and is supported by the others" (2020).





In other words, these domains are interconnected and essential to children's learning and well-being. To that end, the instructional day should include components that address each domain and intentionally support students in building and practicing skills across domains.



The *Explore & Learn* daily schedule consists of 14 learning blocks. This includes 12 learning blocks with scripted lessons so children have opportunities to experience instruction in all domains of learning each day. In addition, the daily schedule suggests including time for Free Play and Teacher-Choice Read-Alouds. While *Explore & Learn* is designed to be flexible and adaptable based on specific schedules and requirements of schools, it is intentional about implementing activities each day to support children in developing and practicing skills across all domains of child development. Additionally, thematic connections are made across learning blocks to support the interconnectedness of learning at this age.



Progressions of Learning

Though children's learning is not always linear, they typically move through a developmental progression when acquiring new skills (Allen and Kelly 2015). Generally, children move from simple to more complex as they gain and master skills. An early childhood curriculum should follow developmental progressions to support students' skill development.

Lesson blocks should follow a systematic scope and sequence based on developmental progressions (Clements and Sarama 2021). Furthermore, the scope and sequence should spiral back to concepts throughout the year, allowing multiple opportunities to practice and extend learning to the next levels of the learning trajectories. An example of this type of progression is children learning to identify rhyming words before they can produce them (Moats and Tolman, n.d.). A well-designed curriculum might begin with lessons that expose children to rhyming words through interactions with nursery rhymes, songs, and poems. This exposure could be followed by lessons in which the teacher says two words and students determine if they rhyme. Later lessons would involve the teacher saying one word and having students produce rhyming words. By following this phonological awareness learning progression, students gradually build increasingly complex skills.



All learning blocks in *Explore & Learn* are designed from research-based developmental progressions. The Explore & Learn program uses a systematic scope and sequence to support children in learning skills from least to most complex. One such example in the Mathematics block focuses on subitizing-the ability to automatically identify a quantity of objects without counting. This skill is an important foundation for later mathematical thinking and development of number sense (Allen and Kelly 2015). The Explore & Learn lessons begin with perceptual subitizing-instinctively perceiving small sets of quantities from 1 to 3. The activity progresses to perceptual subitizing of larger quantities. Students move into *conceptual subitizing*, which involves identifying the quantities of two subgroups, and then combining them to determine the total (Clements and Sarama 2021; Sarama and Clements 2009).



Tier 1

Evidence

Provide intentional instruction to

build children's understanding of

mathematical ideas and skills.

Accounting for Differing Timelines

Researchers and educators can make predictions about how children will progress based on general patterns, but they should also expect a range of individual variation. NAEYC's fourth principle in the Developmentally Appropriate Practice Position Statement asserts that, "Although general progressions of development and learning can be identified, variations due to cultural contexts, experiences, and individual differences must also be considered" (2020). Variations in development and learning from one child to another should be expected. Teachers should carefully consider the differing timelines in which children develop when planning, implementing, and monitoring learning experiences.



The Explore & Learn Guide to Observation and Assessment recognizes that children progress on different timelines and aims to support teachers in meeting children where they are. Through routine observation and assessment, teachers gain an understanding of where each child is in their learning and can adapt instruction to support each child in reaching the next step. Teachers can use the checklists and/or rubrics provided to informally assess children across all domains of learning.

Once teachers have gathered information through observation and assessment, they can make informed choices to differentiate instruction. Each *Explore & Learn Teacher's Guide* provides ideas for extensions, language development supports, and scaffolded supports for whole-group lessons, smallgroup instruction, and independent learning centers. In addition, the *Instructional Routine Cards* that support the lessons include differentiation for English language development and special education needs. Many of the cards also include extension ideas and ways to vary instruction.



Developing Deep Knowledge of the World

Children learn about the world through learning experiences that include both "mirrors" and "windows" (Sims Bishop 1990). According to the NAEYC Developmentally Appropriate Practice Position Statement, "The curriculum should provide mirrors so that children see themselves, their families, and their communities reflected in the learning environment, materials, and activities. The curriculum should also provide windows to the world so that children learn about peoples, places, arts, sciences, and so on that they would otherwise not encounter. In diverse and inclusive learning communities, one child's mirrors are another child's windows, making for wonderful opportunities for collaborative learning" (2020). To establish a learning environment

in which the curriculum can provide both windows and mirrors, educators must provide rich learning opportunities that expose children to new content and experiences while fostering space for children to make connections to those experiences.



Tier 1 Evidence

Use shared book reading to develop

children's language, knowledge of print features, and knowledge of the world.



The read-aloud books feature illustrations and photographs with a range of diverse characters and artistic styles. Diverse characters allow for every child to see themselves and those they know and love reflected in the images. The images also provide windows into unfamiliar settings and concepts, expanding students' knowledge of the people and world around them.





Thematic Units

Organizing the curriculum around themes is one approach to supporting students in developing deep knowledge of the world. In a thematic approach, academic disciplines are integrated across a unifying theme, such as *transportation* or *plants*. Students focus on one theme for a stretch of time and typically explore multiple themes in one school year. Themes support children in learning about the world around them. In a thematic unit on plants, for example, students may begin by observing plants in their communities, engage in hands-on learning by planting their own seeds and making observations, and then learn about plants in different habitats beyond their environment, such as the desert or rainforest. Themes provide the content through which students make sense of their own world, and then deepen their knowledge by extending beyond what is immediately accessible.



The Big Ideas and thematic units in Explore & Learn were thoughtfully selected to engage young learners and encourage inquiry about the world. *Explore & Learn* is comprised of eight Big Ideas, each centered around an essential question to promote inquiry. Each Big Idea is broken into two thematic units that allow students to explore and discover answers to the essential questions. The early units are centered on the individual; then units expand, allowing children to explore the people and places closest to them and, eventually, the bigger world.

Big Ideas	Units			
11/h a 4 co 10	Unit 1–Myself			
who am I?	Unit 2–My Feelings			
Haw Deep Mr. Redy Werk?	Unit 3–My Body			
How Does My body Work?	Unit 4–My Five Senses			
Who Cores for Mo2	Unit 5–Families			
who cares for mer	Unit 6–Friends			
Where De LOren and Lorent	Unit 7–Home			
where Do I Grow and Learn?	Unit 8–School			
Where De Welling	Unit 9-Our Community			
where Do we Live?	Unit 10-Our Country			
Herry De Mie Build and Evelage?	Unit 11–Building Things			
How Do we Build and Explore?	Unit 12–Transportation			
Whet Line on Fastle	Unit 13–Animals			
what lives on Earth?	Unit 14–Plants			
Wheek Affranka Over Direction	Unit 15–Earth and Sky			
what Arrects Our Planet?	Unit 16–Weather			

Integrating Academic Disciplines

Discourse in early childhood education has at times criticized themes for being merely decorative, based on dominant cultural holidays, or overly teacher-directed. However, when themes are meaningfully planned to engage children, sustain their interests, and integrate academic disciplines, thematic teaching helps children make connections and make sense of what they are learning (Varun and Venugopal 2016). By sustaining a theme across all components of the instructional day, children make connections rather than learn each academic subject in isolation.

Step Sign



Within each *Explore & Learn* unit, the theme is carried across learning blocks. This helps children's learning by facilitating connections between different academic disciplines. One example of cross-curricular connections is seen in the *Transportation* unit. Concepts related to this theme are addressed across all learning blocks over the course of this unit. Students read texts about transportation during the Literacy block; solve number stories involving vehicles during Mathematics lessons; experiment with distance, speed, and ramps using toy cars in Science; segment transportation-related sentences during Phonological Awareness; and create road maps and signs during Creative Explorations. This cross-curricular learning is supported through various resources that are used across all learning blocks, including Student Activity Books, Read-Aloud Books, and Vocabulary Concept Cards.

pilot

Vocabulary Development

Research has demonstrated that vocabulary development in early childhood is a significant predictor of later language and reading development (Burchinal et al. 2022; Blocker 2017) and that repeated exposure to new vocabulary around interesting themes is important (Wasik and Hindman 2020). Theme-based instruction supports the development of vocabulary by creating opportunities for repeated exposure. In addition, research shows that grouping target vocabulary words by topic helps build retention (Neuman and Dwyer 2011; Christie and Roskos 2006). For example, in a thematic unit on weather, students are more likely to make meaning of the words *storm, thunder*, and *lightning* if they learn them in the context of extreme weather rather than in isolation. Themes thus support young children's vocabulary development, which can help them learn and understand new words and concepts.



The Explore & Learn program includes 96 Vocabulary Concept Cards to facilitate the development of oral language and content knowledge. Each unit contains six Vocabulary Concept Cards with target words that are used multiple times throughout the unit across different learning blocks. Each card contains real-life examples and age-appropriate definitions. Vocabulary is introduced through a research-based instructional routine that teachers can easily reference with the Introduce Vocabulary Instructional Routine Card. Throughout a unit, the lesson plans let teachers know when to refer to a Vocabulary Concept Card, providing intentional and repeated exposure to additional facets of the word. The back of each card also includes ideas to engage children with the word to further develop their language and knowledge.



Intentionally plan activities to build

children's vocabulary and language.

Tier 1 Evidence

Methods of Learning

The Importance of Play

Extensive research in the field of early childhood education has documented the importance of play in children's learning. Not surprisingly, play is the focus of one of NAEYC's principles of child development and learning in their Developmentally Appropriate Practice Position Statement. Principle 3 states, "Play promotes joyful learning that fosters self-regulation, language, cognitive and social competencies as well as content knowledge across disciplines. Play is essential for all children, birth through age 8" (2020).

Play can include both guided and unstructured activities and can occur alone, with peers, or with adults. Play helps children build the skills and capacities needed to learn and thrive. When children play, they are building their executive functioning, working memory, self-regulation, oral language, and social-emotional skills (Yogman et al. 2018). Children learn to problem solve and navigate social relationships through play.

Researchers have also linked play to academic achievement. In her literature review of research on free play, McGinn (2017) reviewed numerous studies that found positive impacts of play on academic achievement, particularly language development and vocabulary. Play can provide opportunities for students to explore and integrate curricular content (Bynoe and Thompson 2023). The importance of play in the early childhood classroom cannot be understated.



Explore & Learn recognizes the importance of free play and recommends building at least one hour of unstructured play into a full-day schedule. While free play cannot be scripted, each *Teacher's Guide* contains Free Play Ideas for each unit based on the unit theme. This includes recommendations for scaffolding with materials to create free play provocations, such as sensory, dramatic play, art, and block centers. Students are encouraged to use these materials to expand their understandings of thematic concepts. Additionally,

each *Teacher's Guide* includes callouts noting ideas for free play that expand on the lessons taught.



Free Play Idea

Tier 2

Evidence

Free Play Ideas

throughout the unit.

deliver mail.

Have maps available during free play so students can continue to play independently. Students may wish to create new maps to use!

From Unit 9– Our Community

Strengthen children's executive

and activities.

Incorporate these free play ideas to encourage exploration of the theme and skills taught

Literacy and Dramatic Play: Provide paper

and envelopes for students to create items

to mail. Include mailboxes for students to

 Block: Add a simple map, drawn on butcher paper, to the block center. Include roads

Students can build elements to add to the community, such as bridges and buildings.

to empty boxes, cartons, and cans. Have

students add drawings and words to the packaging. Place the items in a class market.

and natural elements, such as rivers

 Art: Have students create items for a classroom market. Attach blank paper

function skills using specific games

The Importance of Hands-On Exploration

The Institute of Education Sciences Panel defines hands-on as "using a wide range of physical objects and two-dimensional representations that children can move, assemble, stack, and arrange as they learn something new" (Burchinal et al. 2022). Quite literally, hands-on exploration involves children learning by physically touching materials in the classroom. Less obviously, hands-on exploration creates engaging opportunities for students to ask questions, make predictions, process ideas, deepen understandings, and develop a sense of autonomy and agency.



Engaging hands-on activities provide opportunities for children to make sense of and apply their learning (Burchinal et al. 2022). In the early childhood classroom, this often takes place during "centers" time in which students have choices about what activities or materials to use. Because these activities are student-directed, they encourage children to take ownership of their own learning. However, hands-on learning is not limited to independent centers. All parts of the instructional day can involve hands-on exploration.



Explore & Learn includes many opportunities for hands-on exploration. For example, each unit includes three Literacy Explorations, which are open-ended, independent centers that occur simultaneously with teacher-led small groups. In each unit, the three independent centers focus on fine motor development, alphabet knowledge, and independent or partner reading.

Materials for hands-on exploration are intentionally selected based on what is typically accessible in an early childhood setting.





The Importance of Direct Instruction

Play and hands-on exploration are frequently portrayed as at-odds with direct instruction, but the reality is that children learn through a mix of different types of instruction. Direct instruction was originally a preschool program developed by Siegfried Engelmann and colleagues (Mason and Otero 2021), but "direct instruction" is widely used as a catchall term for activities that are teacher-led. This may include explicitly defining vocabulary



words, pointing out patterns, or explaining concepts. While the term may conjure images of a teacher standing in front of the classroom lecturing, direct instruction can occur in whole-group, small-group, or one-on-one settings. Well-executed direct instruction can be highly interactive, engaging, and fun.

Direct instruction has been heavily researched and widely accepted to be effective (Mason and Otero 2021). For example, the National Reading Panel (2000) emphasizes the need for systematic and explicit instruction in phonemic awareness and phonics. This means early childhood teachers need to provide instruction to explicitly teach children specific letter-sound correspondences and skills such as listening for phonemes in words. While play and hands-on exploration can certainly provide meaningful opportunities to practice alphabet knowledge skills, direct instruction is also needed to ensure children efficiently and accurately learn letter names and sounds.



The *Teacher's Guides* provide softly scripted lesson plans with language that is appropriate and engaging for young learners and support teachers with a range of teaching experience. Softly scripted lessons help teachers implement robust direct instruction while also allowing plenty of space for teachers to make the lessons their own.

Explore & Learn provides 18 *Instructional Routine Cards*. These cards are referenced in the lessons throughout each *Teacher's Guide*. Each card provides detailed, step-by-step directions for carrying out instruction. This supports explicit direct instruction through consistent and predictable routines.



Build children's knowledge of letters and sounds.



Technology in the Early Childhood Classroom

In a joint position statement, NAEYC and Fred Rogers Center (2012) emphasize that technology and media can be effective tools for learning when used intentionally and appropriately. The reality is that we live in a world of digital tools and interactive media. Educators and caregivers should make informed choices about how to best use technology to enhance learning. One of the principles in NAEYC and Fred Roger Center's joint position states, "Effective uses of technology and media are active, hands-on, engaging, and empowering; give the child control; provide adaptive scaffolds to ease the accomplishment of tasks; and are used as one of many options to support children's learning." In other words, technology should enhance rather than replace other forms of learning in the early childhood classroom. Furthermore, technology has the power to create equity in educational settings by offering windows to experiences and concepts students may not typically encounter.



Throughout Explore & Learn, technology is used to supplement and enhance instruction and hands-on playful learning. Digital learning resources include digital manipulatives, student videos, read-along ebooks, audio recordings, and more. Opportunities for using the digital learning resources are noted with icons throughout the lessons in each Teacher's Guide so teachers know when to use them to enhance learning. Here are two examples of digital learning resources in *Explore & Learn*:

Digital manipulatives: Students can digitally manipulate pattern blocks, counters, and attribute blocks. These do not replace physical manipulatives but provide an alternative for engaging students and providing additional skills practice and confidence with using technology. The digital manipualtives also include engaging letter and number formation activities, providing an additional and/or alternative way to practice the strokes required for forming letters and numbers.

Social development videos: These engaging videos allow students to interact with the words and phrases taught during the Social Development lessons. The videos feature relatable examples of when and how each word or phrase is used in real life and provide opportunities for active engagement. The videos support discussions and explicit teaching during the Social Development learning block.





Building Supportive Relationships

Teacher-Child Relationships

Supportive, positive, and safe relationships are essential to children's well-being and learning. Scientific research has pointed to the need for nurturing relationships with adults to create the environment in which children can learn and grow (National Scientific Council on the Developing Child 2004). These relationships foster the development of children's social competence, cognitive skills, and physical and behavioral health.

When children sustain safe and nurturing relationships with their teachers, they also build their foundations for resilience. Positive relationships can provide a protective effect when children are exposed to childhood adversity (Li and Ramirez 2023). Through relationships, children develop the skills to navigate challenges in a safe and caring environment.

To foster strong relationships, teachers should be intentional about seeking out moments to engage with children through conversation, play, and learning experiences. These moments can occur at any time throughout the day, including structured and unstructured parts of the day.







Regularly provide intentional, engaging instruction and practice focused on social development skills.

Explore & Learn is filled with opportunities for building strong teacher-child relationships. Teachers work directly with children in whole-group, small-group, and one-on-one settings throughout the day, allowing for endless opportunities for teachers to strengthen their bonds with each child.

Tier 1

Evidence

Several *Explore & Learn* thematic units relate to families through a strengths-based approach. In units such as *Myself, Families, Home*, and *Our Community*, students learn about themselves and their families in ways that honor and respect the uniqueness of each family in the class, contributing to positive relationships between teachers and children.

The program also includes opportunities to foster children's relationship-building skills. For example, the Social Development block includes explicit teaching of skills, such as expressing emotions, seeking help, and resisting peer pressure. *Social Story Posters* and role-plays based on these stories are built into the lessons to support students in practicing these skills in a safe environment, with the support of caring educators.



Teacher-Caregiver Relationships

Children thrive when their teachers develop trusting relationships with their caregivers. According to NAEYC (2020), developmentally appropriate practice involves "establishing respectful, reciprocal relationships with and among families." This means working with families in collaborative ways to gain insights and knowledge about children to create learning environments that are responsive to children's needs.

Evidence has linked strong teacher-caregiver partnerships with improvement in children's work habits, attitudes toward school, grades, and social skills (Sheridan 2018). When teachers view family members as collaborators and build opportunities for engagement and partnership, they cocreate an environment in which children can learn and thrive.



Meaningful family engagement is integral to the *Explore & Learn* program. Here are some of the ways the program promotes reciprocal and collaborative relationships between teachers and caregivers:

Family Engagement Letters: Each Big Idea includes a letter that can be shared with families. These letters include information about what students will learn during each unit and provide ideas for engaging in learning experiences that correspond with what is happening in the classroom.

Family Connection callouts: Throughout the *Teacher's Guides*, there are suggestions to support the home-school link by bringing family experiences and knowledge into the classroom or extending classroom activities into the home.



Progress Monitoring in the Early Childhood Classroom

Ongoing monitoring of children's progress is an important element of an effective early childhood program. This includes cycles of observation, documentation, and assessment of each child's learning to ensure they are making progress toward learning goals.

Assessment in early childhood presents unique challenges. Young children often have limited stamina for formal assessments. Early childhood development is uneven, and children may not be able to demonstrate their skills and competencies in the context

of a formal assessment (NAEYC 2020). Thus, it is important for early childhood educators to be aware of these limitations and use a combination of benchmark and formative assessments. Ultimately, assessment should be implemented in ongoing and purposeful ways that strategically improve instruction and foster student learning.

Types of Assessments

Benchmark Assessments: Teachers measure achievement at set times in the school calendar, against benchmarks, to track progress. Benchmark assessments are generally more formal in nature, and the end of year administration can be used as a summative evaluation measure.

Formative Assessments: Teachers observe children during regular classroom activities and routines and take anecdotal notes about their observations. Formative assessments are generally more informal.



The Observation & Assessment Guide contains a number of assessment tools to help teachers plan their instruction and determine reteaching opportunities. Additionally, each Teacher's Guide contains assessment suggestions that coordinate with the skills and concepts taught during each unit.

Benchmark Assessments: The *Explore & Learn Observation and Assessment Guide* includes benchmark assessments that can be used in schools or districts that do not have a required screener or summative assessment. Administration and student pages are included for alphabet, phonological awareness, and numeracy skills, along with detailed instructions and tips for administration.

Formative Assessments: Checklists and rubrics are included across 10 domains of development: social, physical, language, literacy, phonological awareness, mathematics, science/STEAM, social studies, fine motor, and free play. These checklists and rubrics can be used alone as a comprehensive way for early childhood educators to monitor children's progress toward learning goals. The data gathered through the *Explore & Learn* assessment tools can also support and enhance the use of evaluation platforms required by states or school districts (e.g., Teaching Strategies GOLD, Work Sampling System, Desired Results Developmental Profile).



Using Assessment to Improve Instruction

NAEYC makes clear in its Developmentally Appropriate Practice Position Statement (2020) that assessment should be purposeful and focus on children's progress toward learning goals. Assessments should not be done for the sole purpose of collecting information. Educators widely agree that assessment is beneficial only to the extent that it is used to guide instructional decisions. "When we clearly know our learners, we can make informed choices and adjust the learning processes so that all students have an optimal chance of succeeding" (Gregory and Kuzmich 2004, 36). Evaluating assessment data includes discovering both strengths and weaknesses of each student. Educators can use information from ongoing assessments to differentiate to meet the needs of diverse learners, create flexible small groups, address learning gaps, extend learning, and track progress toward goals.



Engage children in conversations about mathematical ideas and support them in using mathematical language.

Explore & Learn provides the tools to organize and analyze assessment data, as well as opportunities for differentiation based on that data.

Research to Practice

The Observation & Assessment Guide offers suggestions and processes for collecting, organizing, and using assessment data to inform instruction. For example, the *Mathematics Development Rubric* and corresponding checklist provide a framework for collecting data as students talk about and engage in mathematical practices. This data can then be used to inform future instruction.

Each *Teacher's Guide* includes ideas for differentiating independent literacy centers and teacher-led small-group literacy lessons. Furthermore, assessment data can be used to determine which scaffolded supports, language development supports, and extension ideas to use during whole-group instruction and/or with small groups of students across all learning blocks.



Communicating Assessment Data

It is also important to communicate about children's progress with stakeholders. This might include family members and other educators or specialists. Families should be consulted when major decisions (e.g., enrollment, placement) are being considered based on children's progress toward learning goals (NAEYC 2020). Additionally, keeping families informed of children's progress and drawing on their perspectives is crucial to children's progress.



The assessment rubrics in the Observation and Assessment Guide are designed with clear and succinct language to facilitate communication with families. A Glow and Grow form is included to help consolidate formative assessment data in a way that is easily understood by caregivers. Recommendations are provided in the Observation and Assessment Guide and each Teacher's Guide about when and how to connect with families regarding student progress toward learning goals.





Conclusion

Extensive research has documented the importance of early learning. To meet the challenge of providing learning opportunities that build on children's eagerness to explore and make sense of the world, educators need high-guality, research-based instructional materials. Teachers can use the resources provided in Explore & Learn to engage students in fun and meaningful learning that helps children build foundational skills and knowledge.

Experts agree that an effective early childhood program addresses children's needs across cognitive, language, physical, and social development. Learning opportunities that foster growth in these areas of development should be based on a progression of learning that children experience through play, hands-on exploration, and direct instruction. All of these experiences should be nurtured in a learning environment built on strong and caring relationships. Explore & Learn provides a comprehensive approach to guide and support educators in the pursuit of building a strong foundation for young learners.



References Cited

- Allen, LaRue, and Bridget B. Kelly, eds. 2015. *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*. Washington, DC: Institute of Medicine; National Research Council; National Academies Press (US). Committee on the Science of Children Birth to Age 8: Deepening and Broadening the Foundation for Success; Board on Children, Youth, and Families: 4, Child Development and Early Learning. Available from: www.ncbi.nlm.nih.gov /books/NBK310550/.
- Blocker, Melanie. 2017. "Vocabular Matters: Why Vocabulary Instruction Is Important and How to Implement Quality Instruction in Preschool." *Graduate Research Papers*. 613. scholarworks.uni .edu/grp/613/.
- Burchinal, Margaret, Sarah Krowka, Rebecca Newman-Gonchar, Madhavi Jayanthi, Russell Gersten, Samantha Wavell, Julia Lyskawa, et al. 2022. "Preparing Young Children for School: Educator's Practice Guide (WWC 2022009)." Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from whatworks.ed.gov/ies.ed.gov/ncee/WWC/Docs/PracticeGuide /TO4_PRACTICE_GUIDE_Preparing-for-School_07222022_v6.pdf.
- Bynoe, Nadia Kenisha, and Angelique Thompson. 2023. *The Gift of Playful Learning: A Guide for Educators*. Huntington Beach, CA: Shell Education.
- Christie, James F., and Kathleen A. Roskos. 2006. "Standards, Science, and the Role of Play in Early Literacy Education." In *Play = Learning: How Play Motivates and Enhances Children's Cognitive and Social-Emotional Growth*, edited by Dorothy G. Singer, Robert Michnick Golinkoff, and Kathy Hirsh-Pasek. New York: Oxford University Press.
- Clements, Douglas H., and Julie Sarama. 2021. *Learning and Teaching Early Math: The Learning Trajectories Approach*. 3rd edition. New York: Routledge.
- Gregory, Gayle H., and Lin Kuzmich. 2004. *Data Driven Differentiation in the Standards-Based Classroom*. 1st edition. Thousand Oaks, CA: Corwin Press.
- Li, Junlei, and Thelma Ramirez. 2023. "Early Relational Health: A Review of Research, Principles, and Perspectives." The Burke Foundation. burkefoundation.org/wp-content/uploads/reports /Early-Relational-Health-A-Review-of-Research-Principles-and-Perspectives_2023sept.pdf.
- Mason, Lee, and Maria Otero. 2021. "Just How Effective Is Direct Instruction?" *Perspectives on Behavior Science* 44, no. 2–3: 225–244. www.ncbi.nlm.nih.gov/pmc/articles /PMC8476697/.
- McGinn, Amy. 2017. "Play-Based Early Childhood Classrooms and the Effect on Pre-Kindergarten Social and Academic Achievement." *Graduate Research Papers*. 229. scholarworks.uni.edu /grp/229.
- Moats, Louisa, and Carol Tolman n.d. "The Development of Phonological Skills." www. readingrockets.org/topics/developmental-milestones/articles/development-phonological -skills.



- National Association for the Education of Young Children and Fred Rogers Center. 2012. "Technology and Interactive Media as Tools in Early Childhood Programs Serving Children from Birth through Age 8." www.naeyc.org/sites/default/files/globally-shared/downloads /PDFs/resources/position-statements/ps_technology.pdf.
 - 2020. "Developmentally Appropriate Practice." www.naeyc.org/sites/default/files/globally -shared/downloads/PDFs/resources/position-statements/dap-statement_0.pdf.
- National Reading Panel. 2000. "Report of the National Reading Panel: Teaching Children to Read." Washington, DC: National Institute of Child Health and Human Development.
- National Scientific Council on the Developing Child. 2004. "Young Children Develop in an Environment of Relationships." Working Paper No. 1. Retrieved from www.developingchild. harvard.edu.
- Neuman, Susan B., and Julie Dwyer. 2011. "Developing Vocabulary and Conceptual Knowledge for Low-Income Preschoolers: A Design Experiment." Journal of Literacy Research, 43, no. 2 (June 2011): 103-129. eric.ed.gov/?id=EJ950695.
- Sarama, Julie, and Douglas H. Clements. 2009. Early Childhood Mathematics Education Research: Learning Trajectories for Young Children. New York: Routledge.
- Sheridan, Susan M. 2018. "Establishing Healthy Parent-Teacher Relationships for Early Learning Success." Early Learning Network. August 29, 2018. earlylearningnetwork.unl. edu/2018/08/29/parent-teacher-relationships/.
- Sims Bishop, Rudine. 1990. "Mirrors, Windows, and Sliding Glass Doors." scenicregional.org/wp -content/uploads/2017/08/Mirrors-Windows-and-Sliding-Glass-Doors.pdf.
- Varun, A., and Dr. Kalpana Venugopal. 2016. "Impact of Thematic Approach on Communication Skills in Preschool." Imperial Journal of Interdisciplinary Research, 2, no. 10: 394–397. files.eric.ed.gov/fulltext/ED581398.pdf.
- Wasik, Barbara A., and Annemarie H. Hindman. 2020. "Increasing Preschoolers' Vocabulary Development through a Streamlined Teacher Professional Development Intervention." Grantee Submission, Early Childhood Research Quarterly 50: 101–113. eric.ed.gov/?id=ED611720.
- Yogman, Michael, Andrew Garner, Jeffrey Hutchinson, and Kathy Hirsh-Pasek. 2018. "The Power of Play: A Pediatric Role in Enhancing Development in Young Children." Pediatrics 142, no. 3. doi .org/10.1542/peds.2018-2058.

