

Saudi Early Learning Curriculum Implementation Program: **Operational Guide**

For Children
Ages 0–6





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Introduction to the Operational Guide

"In recent years, there have been substantial advances in our understanding of the science of early learning and development. These advances, along with rapid social, economic, and technological changes in the global community, have led the early childhood education community to re-examine our approaches, and ensure that current education systems are adequately preparing today's young learners. For the Kingdom of Saudi Arabia, this international push has inspired a special focus on advancing systems of early learning across the Kingdom. With nearly 30% of the Saudi population under the age of fifteen and children from zero to age four representing 10% of the population, children are seen not only as the future of the Kingdom, but also as the present (Al-Awad, 2017). Considering this, alongside the mounting scientific and economic evidence supporting the importance of the early years for later success in school and life, the education of young children is a priority focus for the Kingdom, and is a cornerstone of Vision 2030 and the National Transformation Plan."

– The Saudi National Curriculum Framework for Children Ages 0-6, 2018



In **The Saudi National Curriculum Framework for Children Ages 0-6** (The Curriculum Framework), the companion document to this guide, the Saudi Early Learning Curriculum is given its grounding in recent research and relevant learning theory. A key focus of The Curriculum Framework is on a synthesis of constructivist learning theories, which point to the role of active, integrated learning experiences in children's ongoing construction of knowledge. Additionally, The Curriculum Framework emphasizes the importance of early learning environments and experiences overall, framing the early years as an important developmental window in which each child is gaining a sense of himself as

a learner and a member of society. With the knowledge of the profound ways in which early learning experiences influence children’s chances of success later in life, the Saudi Arabian Ministry of Education is working to ensure that children from all families and regions of the Kingdom have access to high-quality early learning programs.

Child-Centered Teaching and Learning

For young children in Saudi Arabia, positive early learning experiences not only prepare them with skills they need for primary school and beyond, but also provide an opportunity to reinforce national identity and pride, Islamic values, and a sense of well-being, social connection, and a positive attitude toward learning. In response to what is known about the development of young children and the critical role of early learning programs, the Ministry of Education is focused on developing a curriculum that emphasizes three key features of child-centered teaching and learning: Concept-Driven Approaches, Integrated Content, and Inquiry-Based Delivery.

Concept-Driven Approaches

Throughout the Operational Guide, concepts are discussed as broad, transferrable themes and ideas that transcend place, time, and circumstance. For instance, there are social concepts such as identity and friendship; physical concepts such as motion and size; mathematical concepts such as shape and quantity; aesthetic concepts such as color and sound—and many more. Concept-driven curriculum has its basis in constructivism, which emphasizes the child’s development of broad understandings of natural phenomena, shared experience, and knowledge about the world. Concept-driven approaches are less concerned with children’s discrete skills and knowledge, and more concerned with the breadth and depth of experiences that children can have with their surroundings and one another as the basis for all learning.

Integrated Content

When children engage in meaningful play with appropriately challenging materials, they are accessing and building upon their knowledge about a variety of topics at once. By acknowledging this as the natural state and process of children’s development, and by facilitating and supporting both child-directed and teacher-directed play experiences, the teacher can integrate early learning content into every part of the program day. With careful planning and observation, the teacher can ensure that children develop their skills in various content areas multiple times per day.

Inquiry-Based Delivery

The Saudi Early Learning Curriculum is founded on the belief that children actively construct their own learning, are able to act as co-creators of curriculum in a variety of ways, and are major contributors to the learning of their peers through ongoing dialogue and interaction. Inquiry-based learning, as it is described here, recognizes children’s agency and capacity to initiate learning experiences and participate appropriately in

daily decision-making that impacts their learning. The Operational Guide articulates a structured, yet flexible cycle of observation, planning, and implementation that involves children expressing their curiosity and pursuing increasingly sophisticated answers through play and investigation.

Implications for the Early Learning Workforce

For teachers, viewing children in this way allows for the possibility of moving beyond preconceived notions of what children can and cannot do and learn, and opens doors for children to realize their full potential. This requires teachers, families, and program leaders to work together on behalf of the child—communicating important developmental information, collaborating to define best practices for each child, and most of all, sharing a deep respect for each child’s unique characteristics and capabilities. This requires teachers to focus on forming deep connections with each child, as the child’s trust and security—that is, their assuredness of being a valued member of the learning community—allows the child to approach the uncertainty of learning and growth with confidence. This also requires a commitment to significant collaboration among teachers and program leaders, as every adult in the learning environment has a significant role in promoting children’s learning.

Purposes and Limitations

The Curriculum Framework was designed for a variety of stakeholders in early childhood education with different levels of familiarity with early childhood policies and practices. On the contrary, the Operational Guide is written specifically for teachers and program leaders to become familiar with the concept-based, inquiry-driven curriculum for young children, and is meant to serve as a tool for developing high-quality early learning programming at the program and classroom levels. Therefore, its focus is to provide practical considerations and step-by-step guidance for those working with and on behalf of young children.

The content of the Operational Guide is presented in four parts:

- » **Part 1:** Foundations supplies the reader with a broad description of the proposed approach to teaching and learning, and its basis in current brain development research. Specifically, this section will provide a review of the role of teacher-child interactions for the developing brain and children’s development of executive function and self-regulation through a variety of learning activities and interactions in the classroom. There is also a discussion of how these inform an understanding of constructivist learning theory, which is at the foundation of inquiry-based learning.
- » **Part 2:** Developmentally Appropriate Practice provides an exploration of widely-held and substantiated knowledge related to the ways that children learn and develop. This includes its implications for culturally responsive and individualized practices, plus supporting children who have special needs. In addition, this section addresses the roles of both the teacher and the program leader in ensuring the implementation of developmentally appropriate practice in the context of inquiry-based learning.

- » **Part 3:** Curriculum Components is designed to deepen the teacher's understanding of inquiry-based learning as it relates to six key components of early learning (i.e., Planning for Inquiry-Based Learning, Scheduling the Program Day, Structuring the Physical Learning Environment, Interacting with Children, Including Children in the Inquiry Planning Cycle, and Including Families in the Inquiry Planning Cycle). For each component there is an explanation of its relationship to teaching and learning in an inquiry-based early learning environment, and there are samples with detailed guidance for developing personalized plans and tools.
- » **Part 4:** Assessment Across Early Learning Programs highlights the value of ongoing assessment at the child, teacher, and program level in order to know how a program is achieving the results they desire for each child and for the program. This section focuses exclusively on assessment used in a formative way and includes specific strategies for supporting the formative assessment of children and teachers. As programs across the Kingdom roll out the concept-driven, inquiry-based curriculum that incorporates the SELs in an integrated way, it is essential that children, families, teachers, and program leaders are clear on their ongoing and significant role in the assessment process. This section underscores the importance of keeping children's growth and development as the primary driver of continuous quality improvement efforts and supporting teachers' growth within an organizational climate that is oriented towards learning for all stakeholders.

It is important to note that while the Operational Guide describes the inquiry-based curricular approach in detail, it is not a comprehensive implementation guide for teachers. The success of inquiry-based learning at the classroom level depends heavily on the preparedness of the teacher to recognize and respond to the cues of children. It relies on the preparedness of program and system leadership to drive and support incremental changes in practice that will cumulatively result in widespread implementation of the Saudi Early Learning Curriculum. As the Ministry of Education continues to plan for strategic implementation of the concept-driven, inquiry-based curriculum throughout the Kingdom, additional strategic planning and tool development, including the development of additional sample unit plans and associated materials, may be required to support ongoing progress toward implementation.



Foundations

As the science of brain development has advanced in recent decades, it has become increasingly clear that children are already learning at birth, and that all areas of the brain grow and develop rapidly and concurrently during the early years. The environments that children encounter, the interactions they have with others, and the relationships they form will have lasting effects on later learning and development. For young children, learning is not only rapid, it is also cumulative, in that skills are built upon skills as children develop across the birth to age eight continuum. New research on young children and the developing brain reveals that at any given point in development, the processes by which children are developing cognitively, socially, and emotionally are even more complex and integrated than scientists and early education professionals previously believed. We now know that even very young babies are learning about their world in sophisticated ways that are not always evident through their external behaviors (*Transforming the Workforce for Children Birth through Age 8, 2015*). These findings have important implications that call on all adults who care for children to employ curricular approaches that are informed by brain development research and grounded in best practice.

This section will provide an overview of two key concepts related to the science of brain development: the role of teacher-child interactions in brain development for young children and the development of executive function and self-regulation in children. The discussion that follows will focus on how topics inform an understanding of constructivist learning theory and provide a research grounding for integrated, inquiry-based learning for young children.

Young Children and the Developing Brain

Brain Architecture and “Serve and Return”

The architecture of the brain is established through a process that begins before birth and extends into adulthood. Research tells us that brains are built “over time and from the bottom-up” with the most rapid growth occurring in the early years (Center on the Developing Child, “Brain Architecture,” 2017). Brain building starts with the construction of simple neural connections followed by the development of more complex connections. We now know that in the earliest years of a child’s life, more than 1,000,000 neural connections are made every second. These connections are later reduced through a process called “pruning” which eliminates unused connections and allows the brain to function more efficiently. Most importantly, connections made early, whether weak or strong, form the foundation on which later connections are built.

The research now clearly demonstrates that brain development is highly complex, and that cognitive, emotional, and social capacities are intertwined and operate in coordination with one another (Center on the Developing Child, “Brain Architecture,” 2017). That is, emotional well-being and social competence represent the foundation on which cognitive skills are built. This also confirms that learning is neither modular nor organized by developmental domain, but rather it occurs in highly integrated ways as children interact with a variety of people, environments, and objects.

Relatedly, interactions between caregivers and children play a critical role in the developmental process. The timing, quality, and quantity of responsive interactions between children and adults can have long-term impacts on how the brain develops and ultimately on the capacities and tendencies of children related to learning, relationships, and behavior.

Interactions between children and caregivers that are responsive and well-timed play an important role in shaping brain architecture. For instance, when infants and young children gesture, babble, talk, or cry and an adult responds appropriately, neural connections in the brain are formed, and over time support the child's developing communication and social skills (Center on the Developing Child, "Serve and Return," 2017). This back-and-forth interaction is called "serve and return." We know that when the caregiver is sensitive and responsive to the needs and signals of the child, she is not only forming a positive relationship with the child and promoting social skills, but also supporting the development of important cognitive skills that the child will utilize again and again as he continues to learn and grow.

FOCUS ON PRACTICE: BRAIN-BUILDING SERVE AND RETURN

The teacher can:

- ✓ notice the child's attempts to communicate (the serve), and share the child's focus. By noticing serves, one can learn a lot about a child's abilities, interests, and needs. This encourages the child to explore and strengthens the bond between teacher and child.
- ✓ return the serve in supportive and encouraging ways. This support and encouragement from a trusted adult rewards the child's curiosity and validates his interest. When the teacher returns the serve, the child knows that his thoughts and feelings are heard and understood.
- ✓ name what the child is doing, seeing, or feeling. By giving language to a child's interest or idea, the teacher can help her understand the world around her. Naming also adds additional information and expands the child's vocabulary.
- ✓ keep the interaction going back and forth. Taking turns helps children learn self-control and how to get along with others. By waiting, the teacher gives the child time to develop his ideas, and builds his confidence and sense of independence.
- ✓ observe and follow the child's lead. When the child takes the lead, she is able to develop leadership and communication skills, test her prior knowledge, and validate her curiosity and interest. The observant teacher can learn a lot about the child's development and knowledge by encouraging the child to act in a leadership role.

Adapted from The Center on the Developing Child at Harvard University (n.d.). *5 Steps for Brain-Building Serve and Return*. https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2017/06/HCDC_FIND_ServeReturn_for_Parents_Caregivers.pdf.

Executive Function and Self-Regulation

Executive function and self-regulation skills are an important element of early and ongoing brain development. These skills support the ability to plan, focus attention, remember instructions, and manage multiple tasks. The brain uses these mental capacities to filter out distractions, set goals, control impulses, and prioritize tasks. These skills play an important part in successful learning and children's school success overall. Executive function and self-regulation skills are developed over time and derived from three interrelated types of brain function: working memory, mental flexibility, and self-control (Center on the Developing Child, "Executive Function & Self-Regulation," 2017).

- » **Working memory:** The function that supports the ability to retain and manipulate specific pieces of information over short periods of time.
- » **Mental flexibility:** The function that supports the ability to sustain or shift attention as needed in response to various external cues or to use and apply different rules in different circumstances.
- » **Self-control:** The ability to set priorities and resist impulsive actions or responses.

Children are not born with these skills, but develop them over time through the support and direct intervention of teachers and caregivers. Teachers play an important role in helping children to develop these skills by providing learning environments that are rich with opportunities to practice these skills over time.

Central to children's development of these capacities is the opportunity to practice reflecting on their experiences, talking about what they are doing and why they are doing it, considering the antecedents and consequences of their actions, planning for the next steps, and evaluating their solutions to various problems. Through a gradual release of responsibilities—that is, helping children complete a challenging task at first, and gradually scaling back support to let children work with increasing independence—plus ongoing dialogue with children to help them learn from mistakes and understand their own learning processes, teachers support children's growing abilities to learn independently.

FOCUS ON PRACTICE: DEVELOPING EXECUTIVE FUNCTION THROUGH PLAY-BASED LEARNING

The teacher can:

- ✓ allow children to make their own play props. To make props to act out an imaginary or familiar story, children must determine what is needed, hold this information in mind, and then follow through without getting distracted. This task involves selective attention, working memory, and planning. If the original plans are not successful, children need to adjust their ideas and try again, challenging their cognitive flexibility.
- ✓ ask children to develop and articulate play plans. If children can decide what they are going to do before they start playing, this can help them to organize their play, coordinate with others, and focus their attention. Planning means that children think first and then act, thus practicing inhibitory control. It encourages social problem solving, as well as oral language.
- ✓ use rhymes, chants, and group storytelling. Chants and rhymes that repeat and add on to earlier sections, either through words or gestures, are a great challenge to working memory, as children have to remember where they left off in the prior verse and know what to add next. In activities where one child starts a story and other children continue the story, children need to pay attention to each other and adjust for unexpected plot twists, challenging their attention, working memory, and self-control.
- ✓ provide opportunities for children to test themselves physically. Children gain vital skills through access to climbing structures, balance beams, seesaws, and more. Challenging children to an obstacle course or other games that encourage complex motions (skipping, balancing, hopping) are fun for children, and also develop their abilities to focus attention, monitor and adjust their actions, and persist to achieve a goal.

Adapted From The Center on the Developing Child at Harvard University. 2014. *Enhancing and Practicing Executive Function Skills with Children from Infancy to Adolescence*. <https://developingchild.harvard.edu/resources/activities-guide-enhancing-and-practicing-executive-function-skills-with-children-from-infancy-to-adolescence/>.

Constructivist Approaches to Early Learning

“To ensure the highest quality and relevance of the Saudi Early Learning Curriculum, it must be based on a strong foundation of broadly accepted knowledge of child development and learning. For this reason, the Curriculum Framework places significant emphasis on relevant learning theories that will drive all further conceptualization and development of the national curriculum (Al-Nashif, 2014). Established learning theory should inform the way that curriculum is designed and enacted in the early learning environment. This includes instructional strategies, ways of preparing the learning environment, planned interactions between teachers and children, and tools to observe and assess children’s learning.”

–The Saudi National Curriculum Framework for Children Ages 0-6, 2018



In addition to its foundations in the science of brain development, the Saudi Early Learning Curriculum, both its curriculum content and instructional practices, is grounded in established principles of learning theory. To that end, the curriculum is built on the theoretical foundation of Constructivism and includes Cognitive and Sociocultural learning theory, whose major contributors include Jean Piaget (Cognitive Learning Theory) and Lev Vygotsky (Sociocultural Learning Theory), and which are described at length in The Curriculum Framework. Drawing from these two approaches and the science of brain development, the Saudi Early Learning Curriculum:

- » addresses the whole child.
- » provides learning opportunities that are concept-driven and inquiry-based.
- » emphasizes the role of teachers to scaffolded learning.

Addressing the Whole Child

Understanding that preschool is only one part of the big picture of each child’s development, it is important to recognize the variety of other influences on children’s learning and growth. The Saudi Early Learning Curriculum addresses the whole child in that each stage of planning, learning, and assessment involves close observation, collaboration with families, and attention to each child’s learning needs and preferences. The planning templates (found in the appendices of this document) build in opportunities for teachers to consider how learning connects to children’s real life experiences, gather more information from children, and understand more about each child’s current and prior experiences at home.

The Curriculum addresses the developmental needs of children through:

- » **Content Learning.** Content learning, as it is described throughout the Operational Guide is related to the seven content areas discussed at length in the Saudi Early Learning Standards (SELS 3-6, 2015). Each week, the teacher is challenged to provide experiences that integrate learning across the content areas, addressing all domains of children’s learning.
- » **Conceptual Learning.** The teacher is also asked to consider what broad, transferable concepts children can explore throughout each unit, and how she will scaffold, challenge, and build upon children’s existing knowledge and assumptions about these concepts. For instance, during a unit on balls, the teacher can plan for moments when children will be exploring scientific and mathematical concepts such as gravity, size, and quantity. She can consider what questions she will ask and what opportunities she will offer to push the limits of children’s thinking about these concepts, and add language to build upon their understanding of the phenomena they are noticing and experiencing.
- » **Character Learning.** Finally, the Curriculum encourages the teacher to be conscious of how children are developing as independent and motivated learners, and building 21st century learning skills. These skills are discussed in Part 3 as the six character learning goals—communication, collaboration, critical thinking, creativity, perseverance, and attention.

Concept-Driven, Inquiry-Based Approach

Concept-driven approaches emphasize children’s exposure and opportunities to grapple with complex concepts, which can be applied as a foundation for future learning. When a toddler stacks cups in order, he is exploring mathematical concepts of size and order, which will later contribute to his understanding of ordinal numbers and other complex mathematical skills. When a child is pretending to write a letter by drawing lines across a paper, she is exploring the concept of print, which will lead to the more sophisticated practice of writing letters and words. In a concept-driven early learning environment, the teacher plans for these moments and notices when they occur spontaneously. She responds to them effectively in the moment with questions that deepen children’s thinking about what they are doing, and she considers them when planning for future learning.

Building upon the concepts and topics that children are naturally exploring in the classroom, the teacher has an integral role in organizing the curriculum around the curiosities of children. Children may articulate specific questions, or they might express curiosity through their patterns of play and dialogue with one another. The observant teacher notices these clues as the readiness of children to learn about different topics, and then plans with children how they will address their questions, test their assumptions, and scaffold their learning.

Scaffolded Learning Experiences

Likewise, the Curriculum planning templates guide the teacher through an evolving planning process that engages children and families through cycles of observation, documentation, planning, activity, and reflection. This process allows the teacher to be constantly aware of and responsive to the developmental progress of the children, and to their interests and readiness to learn. In this way, both the teacher and the child are actively engaged in constructing and advancing knowledge. The table below highlights the key differences between the traditional classroom and a classroom that employs inquiry-based, constructivist approaches:

Traditional Approaches	Constructivist Approaches
Curriculum begins with the parts of the whole.	Curriculum emphasizes broad concepts, beginning with the whole, and expanding to the parts.
Strict adherence to a prescribed curriculum is highly valued.	Pursuit of children's interests and questions is highly valued.
Materials are primarily workbooks and worksheets.	Materials are primarily meaningful objects of play and manipulatives.
Learning is based on repetition.	Learning is interactive, building on what children already know and are able to do.
Teachers disseminate information to children.	Teachers play and have dialogues with children, helping them to construct knowledge.
The teacher's role is directive and rooted in authority.	The teacher's role is interactive and based on negotiation.
Assessment is through testing and is based on correct answers.	Assessment includes children's work, observations, and points of view. Process is more important than product.
Knowledge is considered inert.	Knowledge is seen as dynamic and ever-changing with the child's experience.

Adapted from: Concept to Classroom, WNET Education. "Constructivism as a Paradigm for Teaching and Learning." 2004. http://www.thirteen.org/edonline/concept2class/constructivism/index_sub2.html.

Looking Ahead

Part 2 of the Operational Guide will further explore the roles of children, teachers, and program leadership in concept-driven, inquiry-based learning, through a brief discussion of the basis for this approach in developmentally appropriate practice (DAP).

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Developmentally Appropriate Practice

Developmentally appropriate practice (DAP) refers to teaching methods that are informed by the research on children's early learning and development and on effective educational practices. It is well documented in early childhood research that DAP leads to positive outcomes and long-term gains in children's cognitive development, emotional and social skills, and well-being. Studies have shown that children who learn in developmentally appropriate learning environments demonstrate better problem-solving skills, reduced negative behaviors, lower levels of stress, and positive attitudes about school and teachers. In addition, children are more likely to view themselves as capable and successful learners. (Claxton, Lockhart, & Montie, 2007; Payton et al., 2008).

The teacher employs her knowledge of child development and research-based practices to provide learning experiences that respond to the age, ability, interests, and experiences of each child and of the group. DAP involves establishing informed learning goals and connecting these to engaging activities.

In the context of inquiry-based learning, DAP also relates to building in opportunities for observation and gathering feedback from children, and co-creating curriculum with children based on the questions and curiosities that they are expressing in their daily interactions. As the teacher makes decisions and responds to the evolving curriculum, she must rely on the following three areas of knowledge:

- » Knowledge about child development and learning;
- » Responding to the needs of individual children and,
- » Responding to the needs of diverse learners (Copple & Bredekamp, 2006).

Knowledge about Children's Development and Learning

To develop age-appropriate learning goals for children, the teacher must have a deep understanding of the developmental patterns and characteristics of young children. With this knowledge, the teacher can make broad assumptions about what children are likely to be capable of doing or understanding, and, as a starting point, can establish classroom spaces, activities, and routines that mirror the children's general developmental levels.

Informed teachers of young children understand that the developmental expectations for a four-year-old child are different from those for a two-year-old child. For instance, a two-year-old may fill a bucket with small cubes and then empty the bucket and repeat filling and emptying. The teacher would notice that the child may be exploring the concepts of quantity, and see the opportunity to incorporate the numeracy concepts by counting aloud the number of blocks that fit in the bucket. A four-year-old child may use the same cubes to build a structure with windows and doors. In this case, the teacher might infer that the child is exploring the concept of symbolic representation, and she might encourage the child to envision and create additional, more complex features of a building or cityscape. With a nuanced understanding of child development, the teacher will be able to make accurate assumptions about what readiness and curiosity children are expressing through their play, and encourage children to take the next steps.

Principles of Child Development and Learning

Based on research and considerations from practice, a number of universally accepted guiding principles have been identified that inform the work of early childhood educators around the world. These same principles are foundational to the effective implementation of developmentally appropriate practices. These include:

Children develop in a comprehensive and integrated way.

The development of children generally follows a typical sequence.

Children develop at different rates.

Children can learn efficiently when they feel protected and safe.

Children are active learners.

Children learn through hands-on experience, social interaction, and reflection.

Children have the motivation to learn through a continuous process of challenge and mastering skills and concepts.

Learning styles and approaches vary among children.

Children learn through playing.

Responding to the Needs of Individual Children

Knowing the typical developmental characteristics of any age group helps the teacher to predict and interpret the tendencies and abilities that she may see in children. However, understanding these developmental patterns is not enough to provide what is developmentally appropriate for each child. In addition, the teacher must use observation of individuals and groups of children to identify their unique abilities, interests, and needs.

Children come to preschool with individual developmental strengths. Children of the same age will bring their own inclinations, interests, and capabilities based on their prior experience. For example, consider the case of two 4-year-old children born in the same month. One child, whose father teaches biology courses at university and discusses related topics with her at home, uses sophisticated language and shows a pronounced interest in the life sciences. Her teacher might respond by selecting items from nature, or non-fiction books that spark Laticha's interest in the processes associated with plant

and animal life. The other child, whose grandmother is a teacher and prioritizes reading at home, has advanced literacy skills and is able to read simple books. Her teacher would not assume that because the child is ahead of her peers in this skill set, that she doesn't require support for continued learning. Instead, she would be sure to provide opportunities for the child to exercise and develop her reading skills.

The teacher should use information that she gathers from children and families to remain aware of children's developmental growth edges and respond accordingly. It is important that the teacher take into consideration specifics of each child's knowledge, skills, and experiences when determining the appropriateness of learning goals, and set expectations that are both challenging and achievable (Copple & Bredekamp, 2006).

FOCUS ON PRACTICE: IMPLEMENTING DAP IN EARLY LEARNING PROGRAMS

In the NAEYC publication, *Developmentally Appropriate Practice in Early Childhood Programs: Serving Children from Birth to Age 8*, the editors provide a set of five overlapping tasks and related strategies that can guide decisions at both the classroom and program levels (Copple & Bredekamp, 2009). These approaches and strategies can serve as the basis for implementing a curriculum that is informed by developmentally appropriate practice, and results in positive learning outcomes for all children.

Creating a supportive community of learners in an environment that makes them feel safe and appreciated. The teacher can do this by choosing and arranging classroom equipment and materials in ways that children can use them independently and successfully. She can make a point to acknowledge each child individually, and recognize his contributions to the curriculum or the group's collective knowledge.

Practicing intentional teaching strategies. The teacher can focus on effective observation strategies, preparing and equipping the learning environment, and exposing children to a variety of experiences.

Ensuring that curriculum addresses all areas of development and learning in children. The teacher can facilitate activities that address multiple content areas in integrated ways. She can plan activities that are flexible enough to respond to the differing developmental levels and abilities of children.

Establishing mutual relationship with families. As discussed later in Part 3, the teacher can establish an ongoing dialogue with families, accessing their knowledge and expertise around their children's development and needs at multiple points throughout the inquiry cycle.

Assessing the development and learning of children. Key principles and strategies associated with assessing young children are addressed in depth in Part 4.

(Copple & Bredekamp, 2009)

Responding to the Needs of Diverse Learners

All children, regardless of language, culture, or ability, have the right to learn. DAP for diverse learners requires the teacher to fully embrace all children as they are, and provide strategic support for diverse learners. To do this, the teacher must acknowledge and respect these differences, while ensuring that the curriculum and modes of teaching do not unfairly advantage some children and marginalize others based on their differences.

Cultural Responsiveness

Early learning programs often serve children and families from diverse cultural and linguistic backgrounds. Therefore, to ensure children's success, it is important that the preschool environment reflect the cultural and linguistic traditions of all children and families by offering learning materials, activities, and strategies that provide children with a sense of belonging and positive perspectives about human differences.

To support diverse children in their classrooms, teachers must both examine their own cultural beliefs and attitudes and increase their understanding of the cultural backgrounds and contexts of the children in their classrooms. Deepening understanding of child, family, and community context can be achieved through a variety of strategies including interviewing community members, reviewing written material, observing children, and meeting with families to learn more about their goals for their children, as well as cultural and family traditions and beliefs. Preschool teachers can use this information to create learning experiences that are consistent with a developmentally appropriate approach and meet the individual needs and abilities of learners who are culturally and linguistically diverse.

FOCUS ON PRACTICE: CULTURAL RESPONSIVENESS IN THE EARLY CHILDHOOD CLASSROOM

The teacher should:

- ✓ **recognize and support children's primary language (mother tongue).** She can do this by learning and using the words used by the child to express greetings, basic needs, and desires.
- ✓ **create a physical environment and materials that recognize and honor cultural, linguistic, family, and personal diversity.** She can do this by providing books, games, and authentic materials from different cultures. This could include puzzles, books, and images that reflect diversity including race, age, abilities, and professions (Wardle & Cruz-Janzen, 2004). This could also involve integrating resources and materials into classroom interest areas that reflect a variety of cultures (e.g., pictures and posters of world-famous buildings or landmarks in the building center, empty food cans, menus, and magazines in the dramatic play center, traditional foods from different cultures during snacks). In doing this, she should avoid the use of materials or displays that depict people in stereotypical ways.

Responding to Children with Special Needs

Early childhood teachers play a central role both in helping to identify children who have special needs and in ensuring access to learning opportunities that help children progress both academically and socially. DAP supports the integration of children with special needs into the preschool classroom through modifications to activities that allow children to participate at their own level and pace, and through accommodations that enable children with differing abilities to participate to the fullest extent of their capabilities.

To help them do this effectively, many early learning programs participate in local early intervention services, which often employ or partner with specialists who can collaborate with teachers to create individualized plans for children. Families and program leaders also act as key decision-makers in this collaboration, and typically have a significant role in enacting individualized plans and monitoring their child's progress. The focal point of this collaboration is the child's right to an appropriate early learning experience in which he is included in learning activities with his peers, and challenged to reach his full learning potential.

The responsive, child-centered nature of inquiry-based curriculum provides many opportunities for the teacher to consider each child individually, including children with special needs. The planning templates provide a variety of opportunities and reminders to consider where children may be challenged to participate in an activity, or be ready for something more complex. The teacher is challenged to identify opportunities for each child to be successful in every learning activity.

FOCUS ON PRACTICE: KEY CONSIDERATIONS FOR TEACHERS OF CHILDREN WITH SPECIAL NEEDS

The teacher can...

- ✓ engage families as partners in setting goals, planning learning experiences, and accessing specialized or additional support services.
- ✓ plan experiences and interactions that provide an achievable challenge, and that support continuous development and learning.
- ✓ provide the individualized support that children need to have successful peer interactions.
- ✓ use observations to track children's progress and identify areas needing additional support or planning.
- ✓ prepare the physical environment to include adaptations that ensure all children can easily, safely, and independently access materials and activity centers both inside the classroom and in the outdoor environment
- ✓ include books, visuals, dolls and puppets, and other materials in that classroom that depict children with differing abilities in positive ways.

(Odom et al., 2006)

The Role of Program Leadership in Supporting Developmentally Appropriate Practice

Program leaders play a number of important roles in ensuring DAP is effectively and consistently implemented across the early learning program. They are responsible for maintaining and communicating the learning community's commitment to developmentally appropriate, inquiry-based early learning, and supporting classroom teachers in successfully integrating DAP into their planning and daily interactions with children and families.

In their role as instructional leaders of inquiry-based early learning programs, program leaders must also have a strong understanding of children's development and learning across ages and developmental domains, and use that information to support their work with teachers. Program leaders can ensure that all teachers are consistently implementing developmentally appropriate, inquiry-based curriculum for children by providing teachers who are new to the program with an orientation to the overall curricular approach and center-specific processes and expectations. The program leader is also responsible for providing all teachers with ongoing learning opportunities, guidance, and resources as needed, including time to plan together and reflect on practice in a community of learning. The program leader sets expectations for teachers and actively works to create structures that support teachers in achieving these goals.

FOCUS ON PRACTICE: THE ROLE OF PROGRAM LEADERSHIP IN SUPPORTING DAP

To support teachers in their work, program leaders can:

- ✓ **work to create a program-wide culture of professional learning and continuous improvement.** This involves making the time for specific opportunities for teachers to collaborate in peer groups to reflect on and refine their practice.
- ✓ **provide time and opportunities for teachers to deepen their understanding of DAP through training and peer learning communities.** Through targeted, needs-based professional development, the program leader can support skill development and help teachers reach their professional goals.
- ✓ **provide ongoing coaching and feedback to support teacher's planning and decision-making for groups and individual children.** This is related to effective supervision and evaluation between teachers and program leaders, but should also include arrangements for teachers to be supported by peer mentors.

Looking Ahead

Parts 3 and 4 of the Operational Guide put these principles and recommendations of DAP into action through extensive guidance to support teachers in creating developmentally appropriate, inquiry-based learning experiences for children, and observing and assessing young children in appropriate ways.

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Curriculum Components

Early learning research has consistently shown that children learn and develop most naturally and most holistically through play-based approaches to curriculum. It is through play that children engage and interact in the world around them. Play allows children to create and explore a world they can master, conquering their fears while practicing adult roles sometimes in conjunction with other children or adult caregivers (Ginsburg, 2007). The early years are recognized as a critical period for the development of communicative competence, which includes language development and knowledge of symbol systems. Children begin to develop a variety of cognitive capabilities, including scientific inquiry, numeracy, and problem solving skills.

In recent years, it has become increasingly apparent that in addition to building basic knowledge and skills in young children, it is an important role of early learning to lay the foundation for children to become critical thinkers—prepared to compare evidence, evaluate competing claims, and make sensible decisions. We live in a rapidly changing, highly connected global society in which governments and organizations are relying upon future leaders to innovate and solve complex problems, communicate across cultures, and persist in seeking solutions that enhance environmental and economic sustainability. For these reasons, a focus on 21st century skills from an early age is an appropriate and timely strategy.

Establishing Learning Goals

Understanding and articulating learning goals is an important step in generating developmentally appropriate curriculum for young children. Consider three distinct categories of learning goals:

Conceptual Learning

As it was discussed in Part 2 of the Operational Guide, conceptual learning is the development of broad, transferrable ideas that transcend place and time, and can relate to multiple content areas. Children are often able to explore and develop understandings of concepts before they are able to name or describe them. For instance, an infant attempting to pass an object through a hole in a shape sorter is exploring the concepts of size and shape, even though he does not yet have the language to define this. The research is clear that children need opportunities to develop, challenge, and refine their conceptual knowledge and theories about how things work, and that they do this constantly through play and interactions. Some examples of concepts that young children are exploring include personal identity, measurement, similar and different, print awareness, bodily awareness and movement, and more. An expanded list of concepts is available in Appendix A.

Content Learning

Content learning describes what children will know and be able to do as a result of this unit. Content learning goals are directly related to the SELS. The SELS will provide critical guidance for choosing developmentally appropriate, developmentally significant learning goals for children that are based on a shared understanding of young children's learning and development.

Later in this section, on the sample Weekly Block Plan, these symbols will be used to indicate where children will be addressing these content areas across different activities. This will help the teacher ensure that she is addressing a variety of content areas in an integrated and balanced way.

Character Learning

Throughout an inquiry-based unit, children will have opportunities to attempt new ways to solve problems, experience conflict and disequilibrium, and work alongside others to build collective knowledge. Character learning relates to the learning skills that children develop as they engage in these challenging tasks.

On the sample Weekly Block Plan, these symbols will be used to indicate where the children will be developing these skills through their participation in learning activities. Similarly to the content icons above, it will be helpful for teachers to identify how a variety of character learning goals are addressed over the course of a week, ensuring that her teaching approaches are balanced, and that 21st century skill development is at the forefront of her planning.

Integrating Content Across the Curriculum

Children are naturally curious about the world around them. By listening to and interacting with children in intentional ways, teachers learn what questions children have and what assumptions and perspectives they hold. These questions are the starting point for engaging children in authentic learning that challenges their prior knowledge and assumptions

Content Learning Symbols



Character Learning Symbols



and connects with their real life experiences. Instead of simply providing answers to the complex questions children have, inquiry-based curriculum provides opportunities for children to explore shared interests and topics that are motivating to them.

For example, as children travel to and from school, they may become curious about how the buildings around them were built and their purpose. In response, the teacher may ask questions to see what children already know, and what, specifically, they are wondering. She might ask: *How do you think the building got so tall? Who do you think built that structure? What do you think it is made out of?* These types of open-ended questions require children to practice reasoning and building hypotheses.

Based on what she knows about children's wonderings, the teacher may choose to explore concepts of physical science related to buildings. This could include concepts of gravity, balance, force, and friction. Based on her observations of children, the teacher offers experiences to help children explore and test their hypotheses. For instance, she may add various sizes of blocks and other interesting building materials such as twigs, stones, and tubes to the classroom and encourage children to design interesting and creative structures of their own. She may encourage children to work collaboratively to see how tall they can build a structure. As children engage in this process, the teacher facilitates learning by building on their expressed ideas, asking open-ended questions, adding new vocabulary words, modeling the use of literature for research, and more.

These iterative, dialogue-driven learning processes lend themselves well to the important work of language development in early childhood. Internal language development, and the use of self-talk is the mechanism by which children process and organize their learning, and is an important precursor to the ability to communicate and understand one another. The use of language admits the child to the social world, and allows him to form relationships and take part in shared learning (Law, 2015). Law goes on to state that of the various approaches found to improve young children's language, the approach of reading aloud with children has gained the greatest research support thus far, particularly when the reading experience includes meaningful interaction between the reader and the child. For this reason, it is valuable for teachers to seek out books that relate to the unit and natural, motivating ways to embed read-alouds. In the example above, the teacher may find books about the characteristics of buildings in their local communities-- also helping to develop a sense of national identity and connectedness to their communities. She may provide non-fiction books that showcase structures from around the world to build children's capacity for global thinking. As mentioned before, she would provide a variety of building materials to allow children to exercise creativity and employ problem-solving skills.

As children continue to explore the concepts related to buildings and structures, the teacher may encourage children to bring in pictures of their own homes to share and discuss, or they could go on a walking tour of the neighborhood to look at different buildings. Children can use that trip as inspiration to explore the aesthetic arts and create paintings, mosaics, and sculptures using novel materials such as bottle caps, pieces of fabric, interesting paper, etc. Children can also practice symbolic representation skills by creating maps of the neighborhood or exploring blueprints.

The teacher continues to offer experiences for children to challenge their prior ideas and assumptions. The intended outcome of an inquiry-based unit is not for children to gain “accurate” knowledge about the topic, but rather the focus is on their increasingly nuanced ideas and sophisticated questions throughout the unit, and having many valuable learning experiences along the way. The teacher adds materials, books, and opportunities that respond to and drive children’s thinking, thereby enhancing their learning. Teachers can support 21st century technology skills of information literacy to create, evaluate, and effectively utilize information, media, and high-tech tools.

Effective, developmentally appropriate curriculum is based on what is known about the interrelationships and sequences of ideas, ensuring children’s later abilities and understandings can be built on those ideas already acquired (Copple & Bredekamp, 2009). An intentional teacher also takes into account the unique pattern and rate of each child’s learning while responding in culturally responsive ways. At the same time, the teacher strives to set achievable goals and provide the right amount and type of scaffolding for each child.

In the book, *The Intentional Teacher: Choosing the Best Strategies for Young Children’s Learning*, Epstein emphasizes that best practice requires us to think about what we are doing in the classroom and how it will foster children’s development and produce real and lasting learning -- the definition of intentional teaching (2014). The six key areas for teachers to consider are:

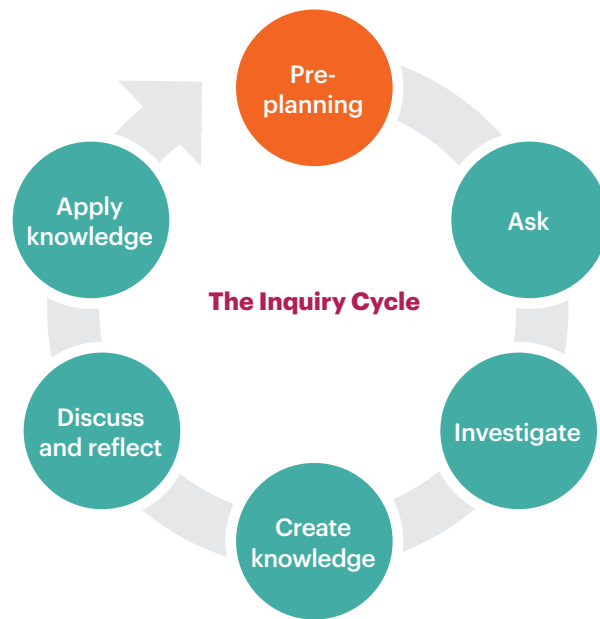
- » Planning for Inquiry-Based Learning
- » Scheduling the Program Day
- » Structuring the Physical Learning Environment
- » Interacting with Children
- » Including Children in the Planning Cycle
- » Including Families in the Planning Cycle



3.1 Planning for Inquiry-Based Learning

The Inquiry-Based Unit Plan is intended to guide ongoing planning over the course of a complete inquiry cycle. The template should be used primarily by teachers and should act as a collaborative document between teachers within a classroom, between teachers and children, and between program leaders and families. The teacher should not complete the unit plan template all at once. Rather, the teacher should use this template in phases to construct the unit over time, synthesizing her own ideas and observations with the information she gathers from children, colleagues, and families.

It is important to note that an inquiry-based unit does not occur within a specified amount of time. Generally speaking, a unit might last 3-5 weeks according to the capacity of the children for sustained interest, and the nature of the topic. This section provides guidance for teachers on when and how to develop each phase of the plan as the unit unfolds.



The Pre-Planning Phase

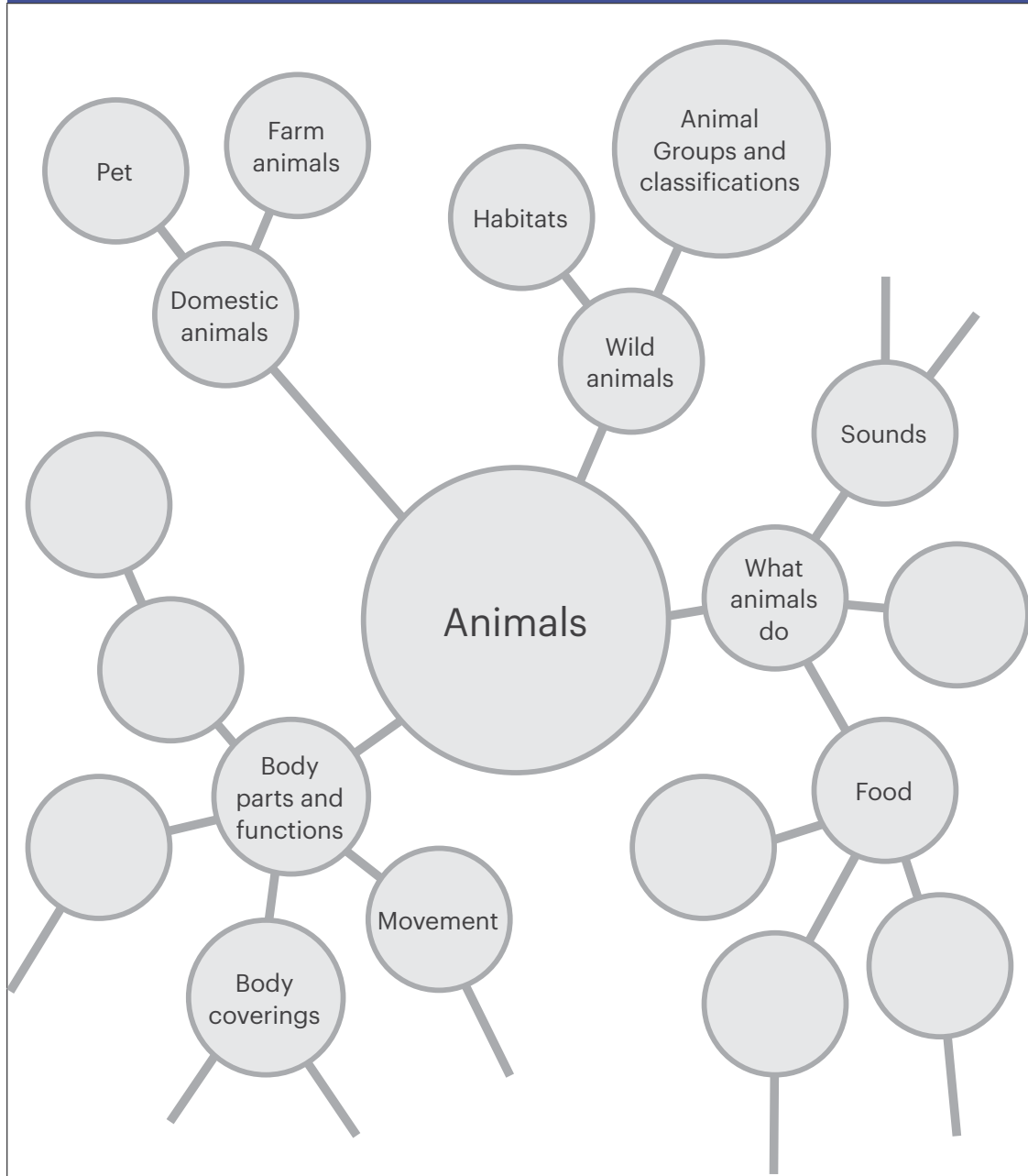
The pre-planning phase is a synthesis of the teacher's observations and reflections prior to the start of a unit. As children work, play, and interact in the classroom, the teacher should take advantage of opportunities to observe children, document their achievements, interests, and challenges, and think ahead to what the next unit might hold. The pre-planning phase occurs mostly before the children become involved, and is an opportunity for the teacher to organize and prepare herself for a successful inquiry-based unit.

Start by choosing a topic of inquiry. The topic should be broad enough to encompass a variety of subtopics that are appropriate, relatable, and developmentally meaningful to young children (Note: to assess the versatility and expansiveness of a topic she is considering, a teacher might start by creating a topic map like the one below). The topic she selects may be a related topic or deeper exploration of a question or problem that came up as a result of the prior unit, or it may follow a predetermined sequence as prescribed by program leadership.

Topic of Inquiry: Animals

Age Level: KG1: (Ages 3-4)

Anticipated Unit Start Date: February 12, 2018



The teacher should take the time to answer the questions related to children's prior knowledge and interests in the planning template. Her answers and reflections on these questions might cause her to alter or refine her choice of topic for the unit.

Assessing children's prior knowledge and interests . . .

1. **How do I know that children are interested in this topic? (What materials are children gravitating toward, what questions have they asked, and what do you hear them talking about?)**

I have been noticing that the children have been using the animal costumes and role-playing animals in the dramatic play center. In particular, they are pretending that a variety of animals are their pets, and they are exploring what it would be like to care for different types of animals. They have also noticed the non-fiction animal books in the library center and are mimicking the animal behaviors they see in the books.

2. **What evidence is there of prior learning about this topic, and how are children demonstrating this?**

Through their mimicking behaviors, children show that they understand and relate to several animal experiences and behaviors, including hunger, aggression, protection of offspring, and connection to their groups. They are demonstrating an understanding of their role in caring for animals.

A well-prepared teacher knows significantly more about a topic than she expects to teach the children. A deep, nuanced understanding enables the teacher to scaffold and direct children's learning, add scientific language and facts, and challenge children's rudimentary assumptions and understandings. Could there be more for the teacher to know about this topic as the facilitator? If so, how might she find out?

Assessing own knowledge about the topic . . .

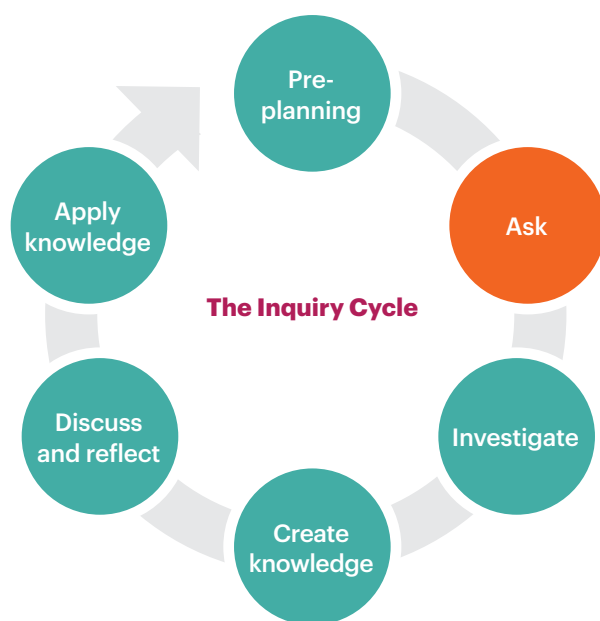
1. **What do I know about this topic that will enable me to scaffold and deepen children's learning?**

I know:

- *what animals are familiar to children and part of their daily environment*
- *ways in which animals are classified (mammals, reptiles, etc.; wild or domestic)*
- *what it takes to care for pets, including what they eat, and what environments are best*
- *the accurate names for young animals*
- *how the characteristics and features of different animals relate to their survival*

2. **What resources are available to expand upon my knowledge?**

Internet searches provide an efficient way to learn a lot about this topic in a short amount of time. They are also a great tool to address children's questions as they arise.



Phase 1- ASK (Tuning In)

Purposes of this phase: Assess and access prior learning; Engage children in the topic through provocation; Identify gaps in conceptual understanding; Give children an opportunity to co-construct learning goals and methods.

Guiding questions for teaching and learning: What do we already know about this? What are we wondering? How can we find out?

Types of activities and experiences: Posing questions, listing known information, developing hypotheses, planning for research activities.

When planning for children's learning, it is important to remember that they come to school with a variety of different experiences and prior knowledge. It is useful to think through what useful information families might hold about children's prior experiences. Families can play an important role in continuing and applying learning at home, so it is best to engage them in the topic of inquiry from the beginning. The teacher should consider what specific information she wants to know from families about this topic and how she will gather this information.

It is also helpful to think in advance about how to utilize and engage resources in the community. Are there places to go or people to consult in the community that could help to expand or deepen learning on this topic? The teacher can use this section to make a plan for how she will connect with these resources.

At times, teachers of young children can feel isolated in their work. For that reason, it is important for teachers to plan ways of collaborating with colleagues. Peers in the workplace may be able to share the insight of experience and fresh perspectives on what the teacher is planning to do in the classroom. Additionally, supervisors, mentor teachers, and even online communities can be great resources.

Assessing the external influences . . .

1. **What information will I collect from families to better understand children's prior experiences with this topic?**

I would like to know which children have pets in their homes, what kinds of animals they have regular contact with, in what ways children participate in caring for them, and whether or not they have experienced the death of an animal.

I would also like to know how the family feels about animals, and what messages they have sent children- do the families consider animals scary, dirty, useful, intriguing, etc.?

I need to ask if children or families have any specific aversions to animals- fears, allergies, or beliefs that prohibit discussion or contact with any animals.

2. **What exists in the community that could be a resource (e.g., outdoor spaces, public services, places of worship, libraries, museums, etc.)?**

We can access the zoo with parent permission and prior planning. We can also visit the library as a class and explore fiction and non-fiction books about animals. We can check out books to temporarily add to our classroom collection.

3. **What have my colleagues done, and what insight can they share?**

I would like to know if others in my school have ever used class pets before, what animals they chose, and what related learning activities they did that worked well.

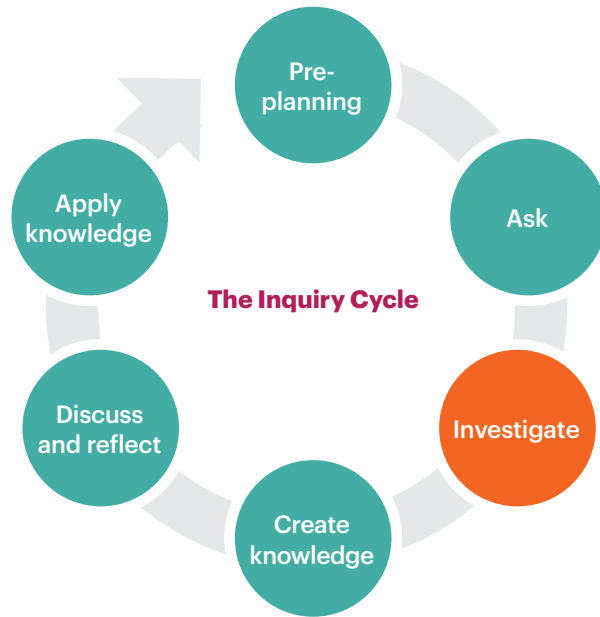
Provocation Activity

When it comes to young children, hands-on experiences and opportunities to reflect on their experiences will provide the necessary context to express their questions and prior knowledge about the topic. In the example below, during a provocation activity for a unit on animals, the teacher plans to give the children time to play with plastic, anatomically correct animal figures. During this time, the teacher plans to observe how the children play with and talk about the animals. The teacher will take notice of what assumptions children have about the behaviors, dispositions, and capabilities of animals, and any other connections they might make. The teacher will then formulate appropriate, meaningful questions to access the breadth of children's thoughts and ideas. Based on what we know about young children's developmental levels, we can assume that a basic activity like the one described below would yield more useful information than simply asking young children what they know and want to know about animals.

The results of Phase 1- ASK should have an important, formative role in planning for the next phases. Therefore, it will be important to plan multiple opportunities for children to participate based on what is known about their abilities and aptitudes. The teacher might revisit this part of the plan following the provocation activity and ask herself, "What else can I do to gather more information?"

It is important to remember that the ASK phase is not restricted to a single activity, nor is it a predetermined amount of time. Rather, the teacher should give children an opportunity to start thinking and asking questions about the topic. The teacher will use weekly and daily lesson plans to define, in more detailed ways, how she will help children formulate questions, hypotheses, and methods of investigation.

How will I present the topic to the children so that they can begin to explore and formulate questions? <i>I will provide an assortment of anatomically accurate animal figures and give children time to interact freely with them during whole group time.</i>	What materials will I need? <i>I will need to collect enough animals so that there are at least 3 per child. I will borrow some from my colleagues' classrooms for this activity.</i>
What questions will I ask after the children have had a chance to interact with the topic? (Questions should lead children to consider and share what they know, notice what they are wondering, and hypothesize about what they will learn.) How else might I gather this information from children? • <i>What do you think about this animal?</i> • <i>What does it do?</i> • <i>Would this animal make a good pet? Why and why not? Do we have what we need in our classroom to take care of this animal?</i> • <i>Is this animal smaller or bigger than the toy in real life? How big?</i> <i>I will also observe children playing imaginatively with the animals. I will record what they seem to believe about the behaviors of different animals.</i>	What assumptions and what questions do children have about this topic? • <i>The children group similar animals together.</i> • <i>They imagine and act out more prosocial behaviors in mammals (protecting and caring for one another, making homes together) and more aggressive, frightening behaviors in reptiles and insects (fighting one another, attacking mammals).</i> • <i>The children discuss what each animal eats. They guess things found in nature, such as leaves, bugs, and sticks.</i>



Phase 2- INVESTIGATE (Finding Out)

Purposes of this phase: Challenge children’s prior understandings and assumptions; Activate children’s skills (thinking, collaboration, perseverance, communication, etc.); Add new content knowledge and information.

Guiding questions for teaching and learning: How does it work? When and how does this theory apply? What tools work best to solve this problem or answer this question?

Types of activities and experiences: Hands-on experiments, books, performances, field trips, applying technology to solve problems or answer questions.

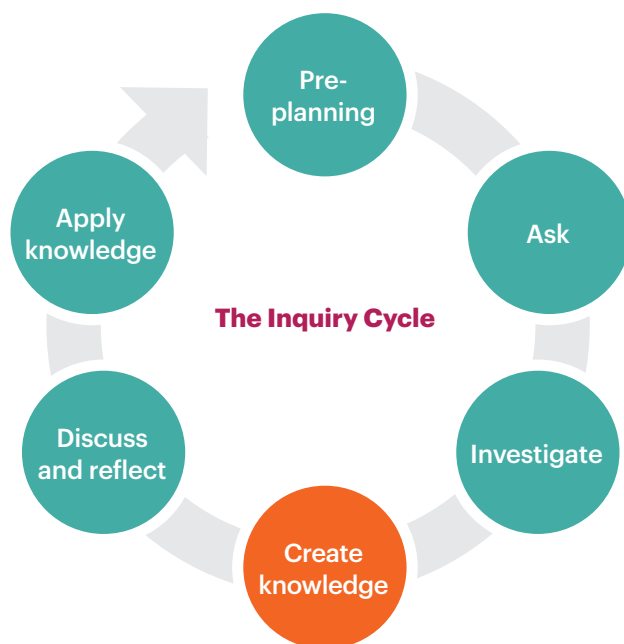
A teacher would revisit the unit planning tool as the class is nearing the end of Phase 1, allowing her reflections and the information gathered from the provocation activities and subsequent observations to help guide her planning for the next steps. Based on what she observed, she will consider what kinds of activities might be motivating and valuable to the children.

Children are learning constantly. During an inquiry-based unit, every moment that children are in preschool is an opportunity to enrich their thinking and experience about the topic of inquiry. Therefore, it is important for the teacher to plan for how children will continue to explore the topic throughout all facets of the day, including outdoor time, meals and other routines, and even at home. Use this section to brainstorm some ideas for how you might address the topic of inquiry in different ways throughout the day. Consider both passive modes (strategically adding materials in a certain place), and active modes (using guided activities and asking targeted questions to scaffold children’s knowledge).

In this example, the teacher has developed a short list of potential activities and discussion points, considering what might be the best format for each. She has not arranged them in any particular order, and based on how the unit evolves over time, she may or may not use all of the activities listed here. However, by doing this, she is able to brainstorm with her colleagues, capture and organize their ideas, and build on these later on when developing weekly plans.

What kinds of experiences will I facilitate to help children answer their questions and challenge their assumptions about the topic . . .

Activities/Experiences	
During whole group times?	• Weigh the pros and cons of various class pets, and select the best one • Plan to build a zoo in the backyard and assign different roles for small groups • Create a chart of the animals that the children know and the ways they eat, how they move
During small group times?	• Draw a zoo plan • Gather animals' pictures based on a specific category • Build a house for the classroom pet • Create a picture book about animals • Using various measuring tools to document the growth of the class pet, measure food and water, etc.
In the learning centers?	• Make animals from different materials (art center) • Build animal houses (blocks center) • Imitate animals and people who work with animals (vet, farmers, etc.) (dramatic play center) • A vet clinic (dramatic play center)
Outdoors?	• Carry on the plan in the classroom • Divide the areas for each animal in the barn and move the needed materials • Imitate animal's movement • Act out a play with animal costumes • Create animals and their homes using sands
During meals and other routines (i.e., hand washing, diapering/toilet, etc.)?	• Discussions on different sources of food • Discussions on what different animals like to eat, and compare to what we like to eat • Discussion about how animals keep themselves clean, and how that compares to how we keep ourselves clean
At home and in the community?	• Send the class pet home with different children on each weekend • Send discussion or research questions about animals. For example, I can ask each family to find and share some information about a different animal's habitat, and prepare to share with the class, or add a page to a collective book • Suggest visiting the zoo as a family



Phase 3- CREATE KNOWLEDGE (Sorting Out)

Purposes of this phase: Organize, represent, and communicate information learned; Provide children opportunities to demonstrate learning in preferred/natural ways.

Guiding questions for teaching and learning: How does this information apply to me and to others? How can I share this with others?

Types of activities and experiences: Making graphs, grouping, labeling, creating artistic or literary representations of the experiences and ideas.

Helping children to solidify their new learning involves opportunities to organize, frame, and express this learning. A teacher would use this section to help her think and plan ahead during Phase 2. As children are investigating the topic, the teacher will plan ways in which they can participate in documenting what they have learned (e.g., charting, drawing, dictating theories and ideas, making video recordings, etc.).

She can give individual children the chance to share their learning with others in the learning community. She will plan with the whole group and build out their ideas for how to tell and show others what they have learned. It is important to note that not all children will be equally capable of articulating their ideas through spoken language. Therefore, it is important to consider multiple ways that children communicate their knowledge and be prepared to capture this information in a variety of ways. The teacher can use this section to organize her thoughts on how to help children communicate their learning to a broad audience.

1. In what ways are children demonstrating and communicating their new learning? How will I document this?

I have noticed increased sophistication in children's discussions about animals, including accurate usage of new vocabulary, thoughtful estimations of how much space different animals might need for their homes, and what features they might prefer.

I have noticed that children are increasingly motivated to bring the class pet home for the weekend and have shown caring and gentleness in their handling of him. The children monitor and remind one another about this.

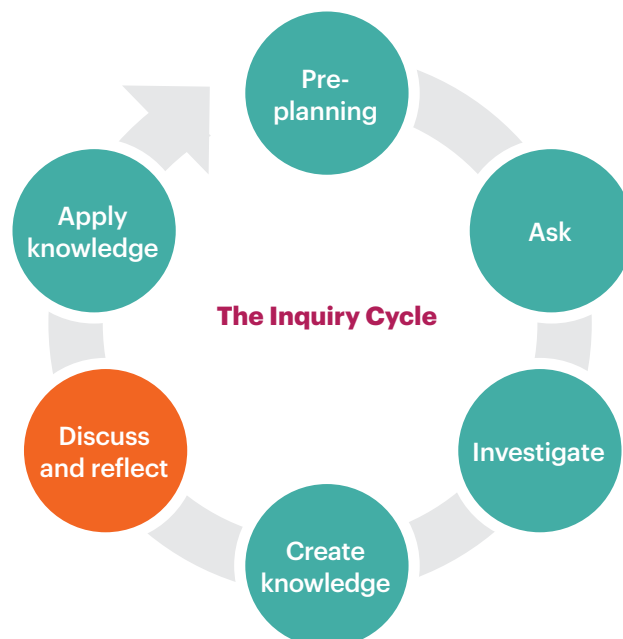
To document this, I have been creating anecdotal records to capture the interactions between children and the resulting change in behavior.

2. How will I help the children to organize and communicate this learning to others (each other, families, others in the kindergarten, community members, etc.)?

The children will compare prior ideas or assumptions to new learning and reflect on their growth. We will document this on chart paper and post it in the classroom for reference, and for families to see.

Each child will contribute drawings and dictate their ideas and stories about animals to a class book, which we will bind and make available in the learning center.

Our class is planning a performance for parent night to share some of what they have learned. The children will present information about animals and act out animal behaviors to the audience. I will video record this performance and provide a copy to each family.



Phase 4- DISCUSS AND REFLECT (Going Further and Synthesizing)

Purposes of this phase: Explore related topics as they come up in children’s play and interactions; Give children opportunities to consider what they have learned, how they have learned, and what they are able to do now that they were not able to do before.

Guiding questions for teaching and learning: What new questions do I have about this? What can I do/know now that I couldn’t do/know before?

Types of activities and experiences: Revisiting initial questions/theories and comparing them with current ideas, journaling, drawing or dictating new knowledge, exploring concepts and content further through learning center activities.

The teacher should consider and record her thoughts on these questions throughout Phases 2 and 3. What else is coming up in children’s play, interactions, and questions? What are their new assumptions? What new learning goals or needs have become clear as a result of this investigation? The way the teacher answers these questions here might differ from what she originally anticipated, and that is to be expected. Intentional teaching involves responding to children’s interests, needs, and readiness to learn in an evolving way. At this juncture, the teacher will decide if it makes sense to go deeper, explore a different facet of the same topic, or introduce a new unit.

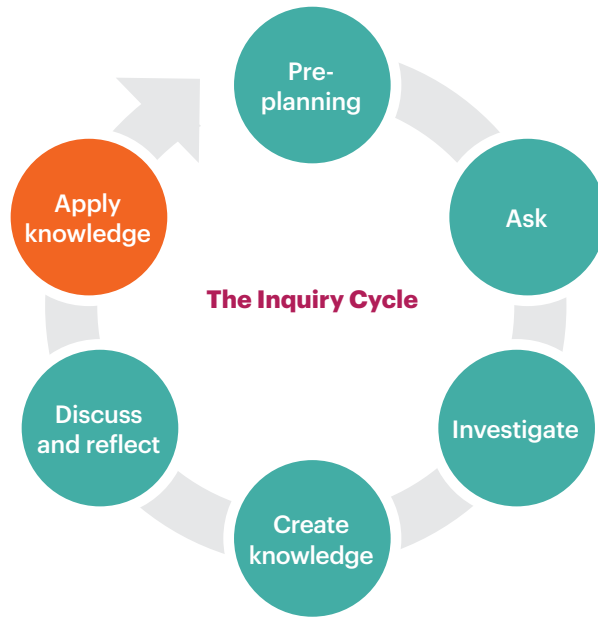
Throughout the inquiry cycle, and particularly at this point, it is important for children to see how their learning is progressing over time. This adds a sense of purpose and competence to children’s learning experience. Meaningful feedback helps children to codify the process and outcomes of their learning and provides valuable opportunities to reflect and self-assess. For example, the teacher might reflect aloud with the children: “When we first started talking about animals, we thought that all animals eat cookies. But now we know about lots of different things that animals eat, and we know that it depends on where they live, how big they are, and what kind of teeth they have.”

1. What related topics of inquiry are emerging in children’s play and interactions?

We have noticed that the children have shown a particular interest in habitats and the different features of animal homes.

2. What actions will I take to encourage children to explore their interests (e.g., planning an activity or experience, asking questions, engaging in play with children in the learning center, introducing a new item, etc.)?

I would like to use wide, shallow basins to construct a variety of habitats with the children, so that they can reflect on how different animals’ basic needs (food, water, shelter and space) would be met or unmet in different environments.



Phase 5- TAKE ACTION (Applying)

Purposes of this phase: Explore implications of new learning including calls to action; Tie learning to real-life experiences.

Guiding questions for teaching and learning: What can we do with this new knowledge? How does this apply to other circumstances in my life?

Types of activities and experiences: Writing a letter, making an action plan, presenting a performance.

The teacher should answer these questions during Phase 4. When learning is authentic and applicable to children, they have innumerable opportunities to extend their thinking and learning beyond the classroom. The teacher should think about how children will notice and be reminded of their learning experiences at home and in other aspects of their lives. She should consider how she might follow up with them later on.

Taking action also involves giving children ownership of their learning. The teacher should take this time to consider how children can be empowered to have a meaningful role in planning for the future by expressing what they want to know and exercising an appropriate level of choice.

1. How does this learning apply to other aspects of children's lives? How will I help children to see those connections?

Children can compare and contrast animal bodies and behaviors with their own bodies and behaviors. They can use their own features, needs, and experiences as a basis for understanding these facets of animals. This sense of connection and similarity will foster caring and responsibility for animals.

2. What topics make sense to pursue next?

- *Habitats*
- *The food chain*
- *Natural environments*
- *Domestic vs. wild animals*

3. How will I involve the children in planning for their future learning?

I will share examples of different animals in their natural environments, and I will present the question, "How do you think animals decide where to live?". I will record the children's ideas to better understand what assumptions children have about this.

Post-Unit Reflections

As stated before, teachers should not work in isolation. The entire inquiry process can and should occur in a collaborative way within classroom teaching partnerships, and with colleagues outside their classrooms. At the very least, teachers should have the opportunity to reflect on each inquiry cycle within a community of practice, which involves peers and/or program leaders. This process can provide the vital collaboration and accountability needed to drive improvement.

It is highly recommended that teachers address the discussion points below within a peer community, and/or with a supervisor.

What was accomplished during this unit that I am proud of or enthusiastic about?

What was surprising about the children's actions, capabilities, growth, or inhibitions?

What opportunities to promote children's learning would I like to take better advantage of in the future?

What 1 or 2 specific, realistic, and implementable changes will I make to my teaching practice in the future?

The Weekly Block Plan

The weekly block plan is intended to provide an overview of learning for the week and describe how the teacher will organize and scaffold content in ways that are meaningful for children. In this example, the teacher plans out the week in which she will introduce the Animals unit in her classroom. She has used some of the ideas she generated on the unit plan template, while other ideas may be saved for a later time. The sample plan below represents what a teacher might do in the first week to learn more about what children know, believe, and wonder about the topic. In general, each classroom teaching team should work together at the end of each week to complete the weekly block plan for the following week.

Topic of Inquiry (Unit): Animals

Age Level: KG1

Week Start Date: February 12, 2018

Character Learning Symbols



Communication



Collaboration



Critical Thinking



Creativity



Perseverance



Attention

Content Learning Symbols



Approaches to Learning



Social and Emotional Development



Language and Literacy



Cognition and General Knowledge



Patriotism



Islamic Education



Health and Physical Development

Learning Goals

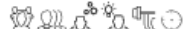
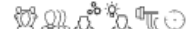
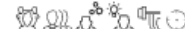
Inquiry-based learning should be cumulative and flexible. The activities, questions, and achievements that occur in one week should inform the teacher's plans for the next week, and so on. Therefore, it is helpful to capture what progress has been made in order to frame and justify the learning goals and activities for the coming week. Some important questions for the teacher to ask herself are: What breakthroughs did the children have in their learning in the prior week? What new readiness have they shown? What interesting topics or questions emerged that could be built upon? What emerging skills might they master with ongoing practice?

Notes from the prior week:

This is the first week of the unit, and I already know that the children are interested in animals because they have been mimicking animal behaviors. When they pretend to be animals, they demonstrate a variety of relatable behaviors such as aggression, hunger, family connection, sadness, and caring for smaller or younger animals.

After reflecting on children's learning over the prior week, the teacher can set learning goals for the upcoming week. When developing the daily plan, the teacher will have the opportunity to set targeted goals for specific activities. Here, to guide her thinking about the overall goals and priorities for the week, the teacher can take some time to identify what concepts and content areas children will be exploring through their work and play, to ensure that learning activities are balanced and integrated. For some, it may be easier to complete this section after planning out the week's activities by reflecting on how the planned activities might give opportunities for conceptual learning.

To understand how the weekly plan addresses the learning standards described in the SELS, the teacher should take a moment to align the activities to the standards. Again, the teacher will use the daily plan to identify how each activity addresses the standards and strands. On the weekly block plan, the teacher should focus on ensuring that a variety of content learning areas are addressed and integrated over the course of the week by indicating which content areas are addressed each day. Similarly, the teacher will indicate on which days children's activities will present opportunities to address character learning goals.

Concepts to Explore this Week: • Same and Different • Body Awareness and Movement • Size • Measurement				
Content and Character Learning Opportunities:				
Sunday	Monday	Tuesday	Wednesday	Thursday
 	 	 	 	 

Daily Question

Before the week begins, the teacher should consider what guiding questions the children will grapple with each day. These questions are driven and informed by which phase of the inquiry cycle the children are experiencing during the week at hand.

Teachers should consider questions that are child-generated, manageable, and developmentally significant:

- » Child-generated could mean a variety of things based on the ages and capabilities of the children. For older preschoolers, daily questions might be suggested by one child and then refined by the group through discussion. They might be pulled from a list of children's hypotheses about what they will learn next. For younger children, the teacher might develop the questions based on observed patterns of play and expressions of curiosity.
- » Posing a manageable question means that the question can be resolved efficiently, allowing children to experience a healthy balance of disequilibrium and resolution. However, this doesn't necessarily mean that there must be a singular answer. According to how engaging a question is, and how capable the children are of sustaining focus, a manageable question might span more than one day.
- » A question that is characterized as developmentally significant is one that is worth exploring and answering, is connected to the daily experience of children, and can be realized through a variety of modes of learning.

In the example below, the teacher has generated questions that are foundational to the unit. As she observes children interacting with these questions, she will have many opportunities to observe children's general knowledge and ideas about animals. She understands that young children make meaning of new ideas and content based on their own experiences and self-concepts, so she provides opportunities to children to compare animals to themselves, and to reflect on children's prior experiences with animals. She has also included questions that lead to a research-based, decision-making process about a class pet.

Daily Topic/Question				
Sunday	Monday	Tuesday	Wednesday	Thursday
What do we know about animals?	What kinds of animals do we know of?	How are animals alike and different from us?	What animal could live in our classroom?	What animal could live in our classroom?

How will the children interact with this question during . . .

For this section, the teacher will consider the best approaches to exploring the daily questions in a variety of teaching and learning formats. Will she lead a demonstration with the whole group that generates more curiosity about the topic? Will she plan a variety of small group activities for children to choose according to the facet of the topic they find most interesting? How will she make use of mealtimes and other routines? Each moment that children are in preschool is a valuable opportunity for them to make meaning of new information in different ways. Advanced planning for how to help children utilize those opportunities enables teachers to make great use of all teaching and learning time each day.

The ability to view the arc of children’s learning over the course of a week enables the teacher to organize activities in a logical sequence, and provides flexibility to rearrange, change course, or slow down in response to children’s input and needs.

Whole Group Activities

It is important for teachers to remember that young children are in the beginning stages of learning to assimilate to group behaviors such as listening to a story or holding a discussion together. To be responsive to children’s developmental levels, whole group activities should be engaging for all children. Based on the children’s ages and capabilities, group dynamics, and level of motivation toward the topic, the teacher can make decisions about how to use instructional time in a way that is productive for all of the children, and that maximizes engagement and minimizes time wasted in managing challenging behaviors.

Often, at the beginning of the school day, children are at their most alert and attentive, and have a high level of energy and a positive mood. This makes the morning an excellent time for whole group activities that help children connect to the topic and to one another. Notice in the example below, the teacher has added the provocation activity that she developed on the unit plan template as the whole group activity on the first day. This provocation activity gives children an opportunity to approach the new topic of learning by interacting freely with the materials and one another and then expressing their ideas spontaneously or through dialogue with the teacher.

Whole group activities?				
Provocation activity: Give children time to explore various plastic animal figures. Follow-up Questions: What do you think about this animal? Would this animal make a good pet? Why and why not? Is this animal smaller or bigger than the toy in real life? How big?	I will play a recording of animal sounds. Children will guess what animals they hear.	Each child will tell (or show) the class what kind of animal they would like to be. Follow-up Discussion: Does that animal have smooth skin like you? Hands and feet like you? What does it have instead?	Create a list of suggestions for what our class pet could be. I will write each child's suggestion on chart paper and save the list for the next day.	We will brainstorm to create a checklist of features for an appropriate class pet (e.g., small, friendly, not too noisy, etc.) Use the checklist to assess the suggestions made in the prior day.

Small Group Activities

In a small group format, the teacher has a unique opportunity to guide learning activities and promote skill development and interaction between children in a way that is more specialized. There are a variety of formats in which teachers can conduct small group activities. Here we will discuss three options: pull-out small groups, embedded small groups, and spontaneous small groups.

Pull-out small groups usually occur during times when children are engaged in self-guided learning, especially in the learning centers. The teacher would call children away from their learning centers to participate in a brief teacher-guided activity along with other children. For preschoolers, an appropriate small group size is usually about 2-5 children, depending on the type of activity. This type of small group setting is generally the least desirable in the context of inquiry-based learning because it interrupts the natural flow of children's thinking and interaction in their learning centers. However, it is the easiest type of small group activity to plan for and is a good starting point for teachers to practice planning responsive activities to scaffold learning for specific children.

Embedded small groups also occur during times when the children are in learning centers or other self-guided learning activities, however in this case, the teacher would plan an activity that occurs within a learning center, using the materials that are already there, or introducing something new to be used in that space. This type of small group activity is reflected in the example below. This small group style can be beneficial because it allows

the teacher to create a flexible plan and guide the activity, but also sets children up to continue to practice and extend their learning in the learning center when the activity is finished.

The third type are spontaneous small group activities. In this type, the teacher joins children in their learning centers to contribute information and depth to children's play. Consider the following opportunity to drive conceptual development in the area of size and measurement: The teacher might approach children building a tower in the blocks center and hear them saying that it is the "tallest tower ever." She could encourage a deeper investigation of measurement by saying, "It is very tall. Should we get out our measuring tape and find out how tall?"

Spontaneous small group activities are the most conducive to authentic, inquiry-based learning, however they require the highest level of skill on the part of the teacher and are the most challenging to plan for. They require a flexible approach where the teacher can respond in the moment and add value to the children's play without derailing or changing the course of the play. They also require the teacher to take the time to observe and gather more information about what children are doing, thinking, and wondering before deciding to approach.

Small group activities?				
I will visit the writing center and ask the children to tell a story about an animal they know. The children will draw a picture of the animal, or illustrate the story, and I will write what they say.	I will visit the reading center and introduce the <i>Discovery Kids Animal Book</i> . I will say, "I noticed that these animals all have different bodies" to open a discussion about the features of animals.	I will visit the art center and encourage children to use a variety of materials to represent the features of animals (feathers, sequins, fabric, etc.) in whatever art forms they are choosing (paints, sculpture, drawing, etc.)	I will visit the science center to hold a discussion about what the basic needs of our class pet will be. We will create a chart of what we know, and what we still need to learn to be good pet owners.	I will visit the blocks center and ask the children to predict how big our class pet will be, and to build a structure that is the right size.

Read-Alouds

Children should have the option to participate in read-alouds at least once per day. Read-alouds can be done in a variety of formats, in planned and spontaneous ways, and they don't have to be forced upon children. Consider three important purposes of reading aloud to young children: fostering joy and interest about books, modeling the use of books as a source of information and learning, and building early literacy skills. In each

case, the value of the experience for children relies on the child's intrinsic motivation to participate, and therefore is diminished when children are forced to participate.

For that reason, reading aloud to children in whole group settings is not always the best approach, particularly for younger preschoolers. Instead, teachers can invite children to join them for a story during times of self-guided learning, offer a read-aloud outdoors when children need a rest, read to individual children at their request, suggest that a small group of children seek the answer to a question in a book, and more. It is useful for teachers to list books that she plans to use during the week, and to be prepared to use them in a variety of ways.

Read Alouds?

- *Animals* by: Ingela P. Arrhenius
- *Polar Bear, Polar Bear, What do you Hear?* by: Eric Carle
- *Home* by: Carson Ellis
- *Where's Spot* by: Eric Hill
- *Dear Zoo* by: Rod Campbell

Outdoor Learning

Moving from indoor to outdoor spaces does not indicate that learning is on hold. Outdoor play and learning present an opportunity for children to continue to explore concepts and content in a more active way, and with fresh materials and surroundings. In the example below, the teacher has identified possible opportunities to challenge and point things out to children that reinforce the topic of inquiry.

Outdoor learning?

- Practice moving from place to place like different animals
- Point out animals or the evidence of animals in outdoor spaces and keep a journal of what we see
- Notice the tracks of animals and predict what animal might have made the tracks

Learning Center

Inquiry-based learning requires the use of the learning centers as key learning spaces. The children should spend a substantial part of the school day learning through self-guided play, interacting with others, and using open-ended materials. It is important to remember, however, that even though the children are directing their own learning at this time, this does not mean the teacher is passive. In fact, the teacher has a significant role before, during, and after learning center time.

Before the children use the learning centers, the teacher's role is to arrange, equip, and plan for what the children will do there. This requires observation—finding out what children are interested in and noticing which materials they have mastered. This also

requires planning—considering what materials can be added or changed to enrich children’s experience in the learning center, connecting their play to the topic of inquiry, and deciding how to introduce these materials to children in ways that will motivate them to try something new.

During learning center time, the teacher’s role is to observe children at play, facilitate children’s planning and self-reflection, and sometimes to participate in play in ways that add value to the experience. In the example below, the teacher has noted not only what she will add to the learning centers, but also what she will do to support children’s learning during these times.

After learning center time, the teacher’s role is to reflect on how children used the space and materials and continue to act in her role as a researcher and collaborator in pursuit of continuous improvement of practice. She might also plan to work with children to solve any problems that come up. For instance, the teacher might point out that the blocks keep getting knocked over because the center is becoming overcrowded, and then lead the group to a shared solution.

It is also important to note that as children pursue their interests in learning centers and grow in their capability to sustain interest and effort toward their projects, the teacher should be prepared for children who wish to preserve their work to revisit at a later time. This reinforces the notion among children that their work in learning centers is meaningful, valued, and respected.

Learning Centers?

- I will add animal costumes to the dramatic play center. I will observe how the children use the costumes throughout the week. Then the children and I will plan how they want to use the center. Some possibilities, are: zoo, pet store, farm.
- I will add animal figures to the blocks area.
- I will add a series of non-fiction books to the reading and science centers.
- I will conduct small group activities within the learning centers to build upon children’s ideas and guide them in using the materials to answer their questions.

Meals and Other Routines

Young children are in the early stages of learning to take care of their own physical needs and are slowly building the skills to be more and more independent. The teacher should honor this process, giving children the time and space to practice their self-care skills as much as possible, even though these routines sometimes take longer as a result.

For that reason, the teacher has a responsibility not to allow meals and other routines to become wasted time. There are many ways that teachers can use these times to add meaningful ideas for children to ponder, point out ideas and phenomena that challenge children’s assumptions, spark dialogue between children, and insert small activities that build children’s skills. In the example below, the teacher has identified some opportunities to build in learning to otherwise mundane classroom activities.

Meals and other routines?

During routines, I will bring up the animals that they discussed throughout the day, and ask questions like, “We’re eating bread. What do you think the camel eats?” “We wash our hands before we eat. How do you think the hedgehog keeps himself clean?”

At Home and in the Community

For young children, learning is not contained to the classroom. Children learn and assimilate new information from their surroundings constantly. Planning for open dialogue with families about how children are making meaning of their learning at home and at school enables both teacher and parent to support and enhance the child’s learning.

At home and in the community?

- I will survey families to gather information about each child’s experience and feelings about animals (e.g., how family members talk about animals, what pets they have at home, any fears or special affinities for animals that the child may have, any beliefs or traditions that preclude discussion or contact with any animals).
- I will ask families to notice ways in which children demonstrate curiosity or knowledge about animals (e.g., the child takes special interest in caring for the family pet, points out bird tracks in the sand, and mentions that an animal has “scales instead of skin,” etc.)

How will the teacher(s) . . .

This segment indicates important considerations that teachers must make in advance. A thoughtful and well-prepared teacher can anticipate areas where certain children may need additional support or an alternative way to participate. Pre-planning allows the teacher to acquire in advance the new materials she wants to add to the learning environment. It allows her to collect and organize knowledge of how children are using their new learning and expressing their curiosity in other settings, and thus she is prepared to support them in pursuing their interests in the classroom. The teacher should reflect on and answer the questions in this section before the week begins.

How will the teacher(s) . . .	
make the necessary advance preparations?	• I will gather a variety of art supplies that mimic the features of animals. • I will visit the library to check out the books I plan to introduce this week. • I will borrow additional animal figures from my colleagues to use for the provocation activity.
engage children in shared decision-making?	• We will use a variety of decision-making strategies to come to a consensus about what kind of class pet we should get.
plan for the diverse learning styles and abilities represented in the classroom?	• There are a variety of opportunities for children to express what they know in verbal and non-verbal ways. My understanding of what children know is based on significant observation of how children play and work with the materials.
document children's learning throughout the week?	• Children will dictate and illustrate stories which can be added to their portfolios. • I will document whole group and small group discussions on chart paper to keep and reflect on later. • I will take photos as often as possible to accompany anecdotal records, which will reflect children's learning and progress.
gather information from families about how children are extending their learning at home and in other settings?	• On the daily communication sheet, I will add a section where I ask families to note any ways children are demonstrating curiosity or new knowledge about animals at home.



3.2 Scheduling the Program Day

The terms routines and schedules are often used interchangeably, but it is important to understand their differences and how they impact the learning environment. Schedules represent the big picture—main activities to be completed daily— while routines represent the steps done to complete the schedule. Schedules are big blocks of time for classroom activities such as large group time or outdoor play. Routines are activities and procedures that occur regularly and often involve a series of steps. For example, mealtime routines involve washing hands, setting the table, and cleaning up afterwards, all of which contain discrete steps, plus opportunities for rich learning.

An intentional teacher spends time teaching specific routines because they not only help children learn how to navigate classroom activities, they are an integral part of providing a developmentally appropriate and responsive learning environment. Intentional teaching also involves using routines as opportunities to reinforce concepts and ideas, and build children's skills. Consistent and well-planned schedules and routines facilitate children's understanding of the learning environment expectations and increase the likelihood that children will be engaged and attentive and learning throughout the preschool day.

While consistency is an important part of the program day, it is equally important to note that scheduling should not be overly rigid or inflexible. This type of scheduling undercuts our understanding of how children enter into and engage in sustained, creative play.

The message received by children is that their own play and processes are less valuable than whatever the teacher has planned. Intentional and responsive teachers are dually conscious of the time constraints of the classroom and the children's need for sustained play and logical sequence, and she finds ways to balance these demands (Wein, 2014).

The Daily Plan

The daily plan document is used to capture in detail the procedures that teachers and children will follow throughout of the day. It gives the teacher a format to plan in advance how she will utilize learning opportunities during every part of the day. The daily plan should be co-developed by all teaching staff in each classroom and should be developed in close proximity to the day to which it pertains. This allows teachers the flexibility to respond to current emerging ideas, questions, and learning achievements in the classroom.

Time and Activity

The flow of the day is very important in the early learning environment. Important considerations include:

- » **Efficiency:** Events should be planned in a logical and predictable sequence. The time and location of events should be convenient and conducive to the type of activity. Routines such as meals, diapering and toilet, and hand washing should be strategically timed and arranged to ensure that children's needs are met and to avoid disrupting other classroom activities.
- » **Opportunities to sustain play:** Children need adequate time to interact with learning materials and each other in order for play time to be meaningful learning time. Planning to dedicate substantial portions of the day to this is an essential part of inquiry-based learning. Particularly in a half-day program, the teacher might consider rotating between indoor and outdoor play times throughout the week to ensure that children have opportunities for sustained time in both settings.
- » **Balance of teacher-directed and child-directed activities:** Both teacher-directed and child-directed activities have substantial developmental value for young children. The ages, abilities, and individual characteristics of children impact what the most appropriate balance between activity types will be, and the daily plan should reflect this.
- » **Balance between active and quiet activities:** Young children also require access to both active and quiet activities, and flexibility within each to meet their individual needs.
- » **Planning for transitions:** Transitions are the moments that tie the day together. A well-planned, well-executed transition activity can mean the difference between a successful, impactful subsequent learning activity and wasted time. Transition activities can also be great opportunities to introduce new vocabulary words, develop language, literacy, and mathematical skills, and build social connections between children. The teacher should consider writing explicit transition activities into the daily plan.

Learning Goals

Appropriate learning goals for a daily plan are:

- » **Informed by prior learning achievements:** Consider what skills the children have mastered. Consider what your observations are revealing about their interests, readiness, and curiosities.
- » **Aligned to standards:** The Saudi Early Learning Standards (SELS) offer a guideline for planning developmentally meaningful activities. Alongside a teacher's knowledge of children's capabilities and interests, they can be a useful tool for making meaning of children's achievements and setting goals.
- » **Specific and attainable within the allotted time:** Consider how the learning goals are related to the question or topic of the day. In the course of a single day, are children expected to master a specific skill? Are they expected to practice a skill as a group? Are they expected to explore a particular concept? These considerations should impact the precise way in which the teacher articulates the daily learning goals.

Procedures and Roles

There is flexibility in this section to accommodate the differing experience and skill levels in early childhood teachers. A novice teacher will benefit from writing detailed, step-by-step instructions for herself and her teaching partner, including who is responsible for carrying out each step. A more experienced teacher might simply make notes to prompt her to carry out procedures with which she is very familiar.

All teachers should carefully consider the following when planning for the day's activities:

- » The procedures should clearly map onto the learning goals. The methods and materials that the teacher chooses should help children make meaning of the content, and should be open-ended, allowing for a variety of different uses according to children's abilities and ideas.
- » All learning activities, including routines and transitions, offer opportunities to introduce new vocabulary, ask questions that encourage children's thinking and imagination, and provide children with opportunities to make choices about their activities and learning.
- » Learning activities should involve enough flexibility to allow children to express their ideas, understandings, and questions in a variety of ways. For instance, the teacher might consider how a child who is less verbal might express what they know about a topic, or how a child who is very active might engage with literature.
- » Consider what opportunities can be built in for teachers to observe children at play and connect their language and activity to the learning goals. How will the teacher know when a developmentally significant milestone has been achieved, and how will she document this?
- » Children also benefit from opportunities to document their ideas and their achievements. What opportunities are there for children to capture their ideas, stories, and questions in writing—either independently or with the support of teachers?
- » Consider how these activities support children's developing autonomy and leadership skills.

Unit of Inquiry: Animals

Age Level: KG1

Date: February 12, 2018

Daily Question or Topic: What do we know about animals?

Time and Activity	Learning Goals	Procedures and Roles
8:00-8:20 Arrival	SE 1.1.4 SE 1.1.2 SE 1.2.3 SE 2.2.2;3 AL 2.0.1 LL 2.1.2	1. I will greet each child and mother at the classroom door. 2. My partner will assist each child with using the toilet and washing hands. 3. My partner will direct children to the tables where children can choose toys or books, and interact with each other while they wait for the rest of the children to arrive. 4. To transition from the table to the rug, I will lead the children in singing the clean-up song, and they will return the table toys to the shelf and go to the rug. Key Questions: What will you choose at the table? New Vocabulary: Choices within the activity: Children can choose where they sit and what materials they use.

Daily Question or Topic: What do we know about animals?		
Time and Activity	Learning Goals	Procedures and Roles
8:20-8:40 Morning Circle	AL 1.0.2 AL 1.0.1;4 CK 2.3.1;2;3 SE 3.1.3 LL 1.4.1;2 LL 2.1.3 P 3.1.4 IE 2.0.3	5. Welcome chant and attendance. 6. I will introduce the new unit by saying, "I've noticed that many of us have been curious about animals lately. I know this because... Today, let's find out what we know about animals, and what we can learn!" 7. I will take out a large bag full of realistic plastic animals. I will ask the children to say the names of each animal as I pull it out, and then raise their hand if they would like to be the one to hold this animal first. 8. I will distribute all of the animals and say, "I wonder what all of these animals will do?" 9. My partner and I will observe, asking questions as appropriate, and responding to children's questions. We will note children's ideas, questions, and accomplishments during this activity. We will take photographs of meaningful interactions. 10. I will allow the children to play and interact with the animals for several minutes, as they remain engaged. Key Questions: What do you think about this animal? Would this animal make a good pet? Why and why not? Is this animal smaller or bigger than the toy in real life? How big? New Vocabulary: Various animal names and body parts/features Choices within the activity: Children can choose and trade animals freely

Daily Question or Topic: What do we know about animals?		
Time and Activity	Learning Goals	Procedures and Roles
8:40-9:20 Outdoor Play	CK 1.1.2 CK 2.1.3 CK 2.3.3 CK 3.2.1 HP 2.1.1	1. To transition to outdoor play time I will show each child's name. When the child recognizes his name in print, he will go to the door. 2. I will ask for a child to suggest an animal whose movements we can mimic to walk down the hall to the outdoor play area. 3. When we get outside, I will ask any children who are interested to continue suggesting animals, name the movement of the animal, and then mimic the animal's body movement. 4. I will ask the children to suggest animals that move very fast, slow, etc. Key Questions: What is the fastest animal you can think of? How do you think the....moves? New Vocabulary: Slither, trot, waddle, soar, etc. Choices within the activity: The children can suggest animals they would like to mimic and discuss. They can choose whether or not to participate in the activity. My partner will also offer an opportunity to read a book outdoors.

Daily Question or Topic: What do we know about animals?		
Time and Activity	Learning Goals	Procedures and Roles
9:20-12:00 Learning Centers and Small Group Activities	LL 3.2.1 LL 2.4.2 LL 1.2.3 CK 3.1.1;2 AL 1.0.1;2 AL 2.0.2	To transition to the learning centers, I will have all children come to the rug. One by one, I will ask them to say what they plan to work on in their learning centers. If they need help, I will ask, "do you want to keep working on..." or I will say, "I remember you were wondering...do you think the.... center would be a good place to find that out?" Once all children have entered their learning centers, I will visit the writing center and ask the children to tell a story about an animal they know. The children will draw a picture of the animal, or illustrate the story, and I will write what they say. My partner will be observing and visiting with children in their learning centers, joining and supporting child-led activities, and documenting children's questions, significant interactions, and progress. To transition out of learning centers, I will give a 5-minute warning and signal to the children that it is time to clean up. The children will put the toys away and move to the rug for the closing circle. Each child will have the opportunity to share what they did or what they found out in their learning centers. I will record their responses on chart paper, emphasizing their words in print. Key Questions: What are you working on? What did you find out? Tell me a story about... New Vocabulary: Illustrate Choices within the activity: Children can choose whether or not to participate in the small group activity. I will explain what we will be doing in the writing center, and the children will visit if they are interested.

Daily Question or Topic: What do we know about animals?		
Time and Activity	Learning Goals	Procedures and Roles
12:00-12:30 Lunch	P 2.2.2 HP 1.1.1;2 CK 2.3.2	To transition to lunch time, my partner and I will assist each child in washing hands and finding a seat at the table. Lunch will be served to each child when they arrive at the table. My partner and I will join the children at the lunch table and have informal conversations about what they are eating and topics of interest from earlier in the day. When children are finished eating, they will use the toilet, wash their hands, and select a book or quiet game to use on the rug. My partner or I will join the children on the rug for the read-aloud and closing circle time. Key Questions: What are you eating today? Do you think this is what the camel (or other animal of interest) eats? What does your pet eat at home? New Vocabulary: Names of any unfamiliar foods Choices within the activity: Children are not forced to eat any foods that are presented to them. They can leave the table any time they are finished and transition to the rug.
12:30-1:00 Read-aloud and Closing Circle	LL 2.1.1 LL 2.2.2 LL 2.5.2	1. I will join the children on the rug, and they can gather around if they want to participate in a read-aloud. 2. I will read <i>Dear Zoo</i>. 3. I will ask the children to put the books and toys away. 4. To close the day, I will ask the children to suggest songs and rhymes they would like to do. 5. We will chant "<i>I'm very glad you came today...</i>"

Daily Question or Topic: What do we know about animals?		
Time and Activity	Learning Goals	Procedures and Roles
1:00 Dismissal		The children will be dismissed with their parents. At dismissal, my partner and I will say goodbye to each child individually, giving them feedback about something they did during the day if possible. My partner or I will provide and discuss the family survey with each parent and ask them to return it at the end of the week.

Reflection Questions

After the day is done, and while the day's events are fresh in the teacher's mind, guided questions can help her to make useful reflections about her practice that will drive continual improvement and support future planning. Teachers are encouraged to complete this section together within each classroom teaching team.

Reflection Questions: What did children learn today? What did I learn today? What are the next steps for children's learning? What do I need to do to prepare for next steps?
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3.3 Structuring the Physical Learning Environment

When curriculum is integrated across content areas, a variety of content is incorporated into each activity and mode of learning, and each child has opportunities to approach the content in unique ways. This type of curriculum requires an environment that is flexible, engaging, organized, and reflective of the vision we have of children as capable participants in the learning process.

When arranging and equipping classrooms, it is important to consider the difference between the *space* and the *environment*. According to expert Reggio Emilia and author Julianne P. Wurm (2005), the *space* is the physical aspects of the place in which one works and spends time with children—the doors, hallways, outdoor play areas. The *environment* is the way the physical space is lived in, defined, and reimagined—furnishings, textures, materials (Wurm, 2005). When designing the space for young children, it should be flexible to accommodate the evolving nature of the curriculum, while abiding by certain guiding principles. The teacher might ask herself:

- » Do spaces encourage children to work collaboratively?
- » Is there enough space for children to move about freely?
- » Are learning centers easily defined allowing children to use them independently?
- » Are all spaces safe for children to use?

An important part of preparing the early learning environment is to select and use appropriate furnishings. Low shelves and tables allow for better supervision and provide easy access for children to use and manage the space independently, reflecting the belief that children are capable and competent learners and co-owners of the classroom space. Child-sized chairs and varied seating options are also important to accommodate various learning styles and needs of children.

Teachers must also consider how the space is arranged. To promote interaction and engagement, each learning center should contain materials that address a variety of content to stimulate exploration, experimentation, discovery, and conceptual learning. Therefore, as the curriculum evolves, learning materials and displays should be changed to reflect what children are learning.

On a final note, it is important for children to feel welcome and connected to the classroom. Children should see themselves reflected in the learning environment through photos, artwork, and other representations of themselves and their achievements.

Assessing the Environment

All learning in an early childhood program occurs within strategically planned learning spaces, and with carefully selected equipment and materials. The way that the environment is arranged, equipped, and utilized has a significant impact on the success of the learning activities to promote children's learning and growth. The degree to which children are able to assimilate their learning experiences to their prior knowledge and feel a sense of belonging in their learning space is directly related to a culturally responsive atmosphere. Below you can see a beginning list of sample Indicators by which an observer could conduct an informal assessment of the learning environment. Appropriate indicators should be specific, concrete, and observable items and practices, which one can evaluate as "Not at all," "Somewhat," or "Consistently."

Room Arrangement

The way the learning environment is organized plays a significant role in communicating to children the intended uses and expectations for the space. The organization of classroom space also impacts the way children move between activities, have their needs met, and progress through the day in an efficient manner. As you think about the arrangement of both indoor and outdoor learning spaces, some things that will be important to consider include:

- » Adequate total space for the ages and numbers of children in the group
- » Strategic placement of learning centers and activity areas to provide designated active and quiet spaces
- » The strategic placement of particular learning centers in proximity to necessary resources (equipment storage, running water, electrical outlets, etc.)
- » The positioning of routine care areas where they are easily accessible and where teachers are able to maintain supervision of all children while assisting individual children with routines
- » Clear boundaries for each learning and play area
- » Strategic placement of furniture and equipment to allow for movement between and within learning and play areas

Room Arrangement	Not at all	Somewhat	Consistently
Adequate space for the ages and number of children in care			
Active centers and quiet centers are located away from one another			
The arrangement of learning centers allows the children to move freely from one center to another			

Furniture and Equipment

The size, quality, and functionality of the furniture in an early learning environment is important. This has implications for the children's safety, plus provides them opportunities to develop autonomy, practice using materials correctly, and experience a sense of belonging in their learning space. Some important considerations include:

- » Durability and good repair
- » Ease of cleaning and care
- » Appropriate quantity (enough to accommodate all children)
- » Appropriate size

As it relates to the equipment and learning materials, it is important to ensure the availability of:

- » Developmentally appropriate materials which are adequately challenging, but not frustrating for the children
- » A variety of materials to promote choice
- » Adequate amounts of materials to promote sharing (as appropriate) while preventing fighting
- » Interesting, open-ended materials which children are motivated to use and explore, and which can be used in different ways according to children's unique interests and capabilities

Furniture and Equipment	Not at all	Somewhat	Consistently
The furniture is durable and in good repair			
The furniture can be easily moved and rearranged to accommodate different types of activities			
There are enough tables and chairs for the number of children in care			

Usage of Space and Materials

The observer should also assess the ways that teacher and children use the space. An expansive early learning space with abundant learning materials would fail to benefit children if the teacher does not successfully establish systems and guidelines that support productive use of space and materials. Some examples of things to look for include:

- » The ease with which children can access materials independently
- » Systems implemented to avoid overcrowding of learning centers
- » Children having access to all areas of the classroom for a significant amount of time
- » Children's ability to choose learning and play areas freely
- » Guidance given to children around acceptable use of space and materials

Usage of Space and Materials	Not at all	Somewhat	Consistently
Children can access and use materials independently			
Children can freely choose learning and play areas			
There are enough materials for the number of children in care			

Culturally Responsive Environment

As discussed in Part 2, every child and family should feel welcomed and represented in the classroom, and the choices that a teacher makes in setting up the learning environment have a big impact. Consider ways in which the learning environment should reflect:

- » Inclusion of children who speak multiple languages
- » Welcoming and communicating with families of diverse backgrounds
- » Opportunities to see diverse people represented in a variety of roles
- » Ensuring all children have access to culturally familiar materials and learning experiences
- » Honoring of family preferences

Culturally Responsive Environment	Not at all	Somewhat	Consistently
Children have access to culturally familiar materials and learning experiences			
Diverse people are positively represented in books, posters, and other learning materials			
Photos of children and families are displayed prominently			

The first step in designing an appropriate space for inquiry-based learning is to center our view of children. In the past, children were viewed as empty vessels to be filled by teachers. On the contrary, in inquiry-based teaching and learning, children are viewed as co-creators with teachers, having much to offer to the curriculum, including valuable questions and fresh insights to a problem. To plan the learning environment, a teacher or program leader could begin by listing a series of words or phrases that describe what she believes about young children, teaching, and learning. How might a teacher arrange and equip the space if she believes that children are capable instead of incapable? That they require active learning experiences instead of needing to be subdued? That they learn through healthy conflict instead of needing to avoid all sources of conflict?

The teacher should be constantly balancing continuity and change within the learning centers. For instance, the furnishings and materials in the dramatic play center can change throughout the year, inspiring a variety of different storylines for children to act out, and giving children opportunities to experience a variety of different items. However, amidst the changes there should remain clear connections to the purpose of the learning center—in this case, opportunities for children to make meaning of their world through role play and open dialogue.



3.4 Interacting with Children

The ways in which teachers interact with children have a significant impact on how the children develop academically and socially, and how they regulate their behavior. Indeed, it is not just the quality of instructional interactions that impact children's academic progress, but also what researchers have called *responsive teaching* (Society for Research in Child Development, 2013). Responsive teaching includes the way teachers respond to children, foster positive relationships, and support children's independence.

This research confirms that the quality of early childhood programming is deeply impacted by teachers' everyday interactions with children (Wien, 2014). By listening and responding to children, teachers can invite children to co-create curriculum based on hands-on, integrated learning activities. Not only do children's thoughts, ideas, and curiosities help shape content, but teachers also intentionally engage children in authentic interactions to deepen children's thinking and provide them opportunities to reflect on their own learning and growth.

Teachers can use daily interactions to model appropriate social interactions and behaviors, and set the tone for positive behavior. In this sense, behavior guidance occurs constantly throughout each day, not just when a child acts in a way that is unsafe or

unacceptable. Teachers guide behavior by establishing predictable routines, setting clear rules and limits with children, and modeling kindness and respect. Together, these actions help children feel noticed, confident, and secure (Dombro, Jablon, & Stetson, 2011).

In early childhood settings, each moment that teachers and children interact with one another is an opportunity to develop positive relationships. It is important to:

- » engage in meaningful one-to-one interactions with every child every day
- » get on the child's level for face-to-face interactions
- » use a pleasant, calm voice and avoid harshness and impatience
- » provide warm, responsive physical contact
- » follow the child's lead and respond to their interests during play
- » help children understand classroom expectations
- » redirect children when they engage in unacceptable behavior
- » listen to children and encourage them to listen to others
- » acknowledge children for their accomplishments and efforts

Assessing Teacher-Child Interactions

The teacher's interactions with the children serve as the model for all social interaction in the classroom and the vehicle for much of what children will learn each day. They are the basis for forming positive relationships that allow children to feel secure and to approach learning with confidence. As part of a successful inquiry-based curriculum, the teacher must be as thoughtful about the way she interacts with children as she facilitates the content of the curriculum. Below you can see a beginning list of sample Indicators by which an observer could conduct an informal assessment of teacher-child interactions. Appropriate indicators should be specific, concrete, and observable items and practices, which one can evaluate as "Not at all," "Somewhat," or "Consistently."

Social and Emotional Support

Consider the following:

- » What should the teacher do to build and maintain positive relationships with children?
- » How should the teacher prepare and support children to have positive social interactions with one another?
- » How should the teacher handle separation anxiety and other moments of stress in young children?
- » What nonverbal behaviors should the teacher use to affirm and support children?

Social and Emotional Support	Not at All	Somewhat	Consistently
Interactions between the teacher and individual children reflect genuine warmth, caring, and sensitivity to students as individuals			
Positive social interactions are acknowledged and affirmed			
Children are encouraged to make decisions about their learning and activities			

Behavioral Support

Consider the following:

- » In what ways should the teacher make children aware of the expectations for their behavior?
- » How might the teacher anticipate behavior problems and act to avoid them?
- » How should the teacher give both positive and negative feedback to guide children's behavior?
- » What developmentally appropriate strategies should the teacher use to guide behavior (e.g., redirecting, separation from a stressful situation, providing acceptable choices, following through with appropriate consequences, etc.)?

Behavioral Support	Not at all	Somewhat	Consistently
Classroom expectations are stated in positive terms and clearly communicated			
Teachers use developmentally appropriate strategies (e.g., redirecting, separation from a stressful situation, providing acceptable choices, following through with appropriate consequences, etc.) to guide children's behavior			
Teachers give children the opportunity to express their feelings in an acceptable way			

Cognitive Development Support

Consider the following:

- » How might the teacher use questioning techniques to build children’s knowledge and cognitive skills?
- » How should the teacher make use of “non-instructional” time to continuously facilitate learning?
- » When and how should the teacher introduce new materials or new ways of using materials?
- » How might the teacher differentiate instruction for a variety of learning styles and abilities?

Cognitive Development Support	Not at all	Somewhat	Consistently
Teachers use open-ended questions to guide children’s thinking and learning			
Teacher takes advantage of informal or “non-instructional” moments to enhance children’s learning			
Teacher encourages children to use a variety of ways to gather information (books, online searches, interviews, observations)			

Language Development Support

Consider the following:

- » How and how often should the teacher introduce new words?
- » What learning activities should the teacher prioritize to build children’s vocabulary and language capacities?
- » How might the teacher use informal moments to promote language development?
- » In what ways should the teacher use language as the basis for other learning?
- » How might the teacher integrate language learning into all other content areas?

Language Development Support	Not at all	Somewhat	Consistently
New vocabulary is introduced authentically and in all content areas			
Teachers regularly have back-and-forth conversations with children			
Teachers read stories and books for children			

A key element in the effective implementation of an inquiry-based curriculum is what some call the curriculum of listening or, more commonly, active listening. This requires shifting to not just focus on what is being said (hearing), but to include a focus on who you are speaking to (listening).

Teachers who use active listening report that very often, it aids them in identifying and validating a child's emotions and thoughts and can diffuse anger, clarify needs, and support problem solving (Reynolds, n.d.).

Teachers pay attention to children to discover what they are saying with their words or body language. They spend time engaging in back-and-forth conversations and asking open-ended questions. According to Amy Dombro et al. in *Powerful Interactions* (2011), teachers have the ability to:

- » model curiosity— teachers show children they are interested in learning about new things. “I wonder what will happen if I add water to the sand?”
- » introduce vocabulary—while talking with children, teachers can introduce new words. “I am going to transfer the blocks into a new container.”
- » encourage thinking—teachers can let children know when they observe them thinking by using open-ended questions. “I saw you built a very tall tower. How did you get the blocks to stay balanced?”
- » take risks—teachers can encourage children to try new things. “I’ve brought in a coconut for us to try. Let’s all try it together.”
- » teach how to find answers—teachers can say “I don’t know” and suggest ways to find answers. “I don’t know what that kind of dinosaur that is. Let’s go get the book on dinosaurs and look it up.”
- » recognize learning and development— teachers can help children see when they have made progress. “Nice work writing your name. I noticed that this is the first time you made all the letters!”



3.5 Including Children in the Inquiry Planning Cycle

To effectively implement a developmentally appropriate, inquiry-based curriculum, it is integral that teachers include children in the planning process. At the heart of inquiry-based curriculum that is both meaningful and responsive to young children, is a teacher who works to identify children's interests and questions. From there, the teacher builds and revises the curriculum over time. Each unit is grounded in what the children know, guided by their questions and interests, and aligned with the overarching goals for children's learning and growth.

Understanding what children know and being in tune with their interests and needs requires two important ongoing and systematic approaches: Observing and listening to children and engaging in direct conversations that invite children into the planning process. Closely observing children on a daily basis helps teachers gain insight into their interests and development and deepens their understanding of the familial, cultural, and community values and traditions that inform their viewpoints. Engaging children in direct conversations for the purpose of including their perspectives in the planning process requires that teachers create regular opportunities throughout the inquiry cycle for children to share their experiences, questions, and ideas as they relate to the topic of inquiry. Together, these two approaches affirm children's role in the ongoing co-creation of the curriculum.

As the teacher plans for inquiry, there are timely opportunities to include children in the process. These opportunities are aligned with the steps leading up to and within the Inquiry Cycle. Even during phases when children are not actively planning with teachers, teachers are always observing children to deepen their understanding of children's interests and the ideas they are exploring during their play. Throughout the inquiry cycle, teachers are encouraged to cultivate a classroom environment where children have ongoing opportunities to take leadership roles, express their ideas, listen to the perspectives of others, collaborate with one another, and exercise problem-solving skills. Below are the phases when the teacher can include children in planning in active ways.

Pre-planning: As the teacher observes and reflects during the period prior to the start of the inquiry-based unit, she should be paying attention to what children are curious about and what ideas and skills they are exploring in their play. The teacher records notes during her observations, collects documentation of children's thinking, and takes pictures and videos to help identify an appropriate topic of inquiry. While the teacher isn't yet directly asking children what they know, she is purposefully collecting critical information to inform the topic and her approach. Reflecting on the observations and documentation of children's knowledge and interests, and discussing with colleagues will help to inform any necessary adjustments prior to sharing the topic of inquiry with children. Because teachers are using this time to get in tune with the current interests of the children in their classroom, children's needs and interests are thereby incorporated into the curriculum planning.



Phase 1- ASK (Tuning In): Once a topic of inquiry has been identified, the teacher should make time to ask children about the topic by having large and small group discussions. The teacher can use visual tools, such as a K-W-L chart noting what children Know, Want to know, and have Learned, or creating a web related to the topic of inquiry. The goal of these discussions is to better understand children's background knowledge about the topic, their current assumptions and questions, and what they would like to explore during this unit. To provide the necessary context for a discussion that captures

children's perspectives, the teacher should provide provocation activities. These hands-on activities allow children to have a shared experience that they can reflect on together, while adding information regarding prior experiences. The content of these discussions will help to customize the content of lessons with related stories and perspectives that highlight the children and their peers. These conversations also include opportunities for children to brainstorm special activities that might support the inquiry, such as field trips or performances. In turn, the lessons will be more meaningful for children and help cultivate a learning community in which each child feels connected, seen, and heard.



Phase 4- DISCUSS AND REFLECT (Going Further and Synthesizing): As children engage in journaling, drawing, or dictating new knowledge and exploring concepts and content in learning centers, for example, the teacher can listen for clues from children about whether to go deeper into a particular facet of the topic or begin thinking about a new unit all together. Children’s exploration may even have expanded to related topics, so it’s appropriate to revisit the visual tools (K-W-L chart and topic webs) that were created in Phase 1. During these conversations, children have the opportunity to share what they have learned, what else they

want to learn, and how they might go about pursuing that learning. The teacher reinforces children’s natural curiosity by taking children’s ideas seriously and following their lead on what ideas and questions are worth pursuing.

Phase 5- TAKE ACTION (Applying): This is a time of sharing and celebrating children’s growth in a variety of ways, including a time for them to explore how they can use their new learning in new ways. If children choose to write a letter or put on a performance for families, for instance, this is the time to involve them in the planning and have them give input in the final product. The opportunity to do so will further reinforce the important role children can play in assessing their own learning and sharing it with others.



These approaches to planning differ from curricular approaches that provide step-by-step directions on exactly what to teach children, how to teach them, and when to teach them. Because these facets of other approaches are laid out in advance, it can be challenging to consider and match the particular interests of children in the context in which they live and learn. An inquiry-based curriculum makes a point to incorporate the perspectives and voices of children and families in the planning process. Unlike other approaches, there is not one particular way for a unit of inquiry to unfold. Instead, what is central for the successful implementation of an inquiry-based curriculum is that the teacher takes responsibility for building connections between what she observes and hears children expressing about the topic and the learning activities she plans and facilitates.

Observing and listening to children requires daily commitment on the part of the teacher. As she observes, it is first important to look for the child’s point of view, remembering that children are connecting with materials and ideas with much less experience than the teachers. Children may be paying attention to details that adults take for granted or fail to notice. Observing children requires teachers to pay close attention to individuals and groups of children, recording information and reserving reflection and interpretation of the observations for a separate occasion. Doing so helps to preserve the child’s perspective.

Teachers may choose some guiding questions during the observation process. Some examples include: *What were children talking about? What seemed to be the focus of their play? What learning centers were most and least popular? And, did any children*

demonstrate a new skill on which I can build? The teacher can then synthesize these observations and reflections prior to the start of the unit or during the pre-planning phase.

It can also be useful for the teacher to recognize that many times young children “may not consider the how or why something is happening unless prompted to so by adults” (Epstein, 2014, 36). To better understand what children are curious about, Epstein (36-37) recommends that teachers engage in back-and-forth exchanges with them using a few core strategies:

- » Encourage children to describe what they are doing by commenting on the materials they are using, the actions they are engaged in, and the effect of those behaviors.
- » Ask questions sparingly so that children have the chance to provoke conversation and to avoid diminishing a child’s interest. Asking questions with intention demonstrates an authentic interest in what the child is doing. Also, respect a child’s choice to not respond, and allow space and time within the interaction for children to ask their questions.
- » Simply invite children to explain their thinking. Rather than asking children about facts, such as the name or color of an object, ask questions that begin with “I wonder why...,” “How do you know that?” and “What do you think might happen?” These questions focus children on their thought processes and provide teachers with insight into what questions and ideas children are exploring.

In order to have effective and meaningful exchanges with young children, teachers must slow down and pay close attention to how these interactions unfold. Teachers should keep in mind that children’s understanding of the how’s and why’s is building over time and highly subject to change. Paying attention to the learning process shows an appreciation and an honoring of their efforts as they are making sense of the world around them (Curtis & Carter, 2008). Also critical to being an effective observer is being aware of the potential of the adult mindset to get in the way of children’s deep exploration of ideas. For example, a teacher’s concern about children’s health and safety and schedules can sometimes stop children in their pursuit of a valuable idea. Teachers should always carefully weigh all priorities concerning their work and also acknowledge, respect, and develop children’s ideas. This will allow the children to recognize the value of their own ideas (Curtis and Carter, 2008). As children assess their own learning, teachers can point out how children have contributed to learning activities, goals, and resulting solutions, giving them ownership and pride in their achievements.



3.6 Including Families in the Inquiry Planning Cycle

As teachers plan for inquiry with children, it is important to create ongoing opportunities to include families. These opportunities are aligned with the steps leading up to choosing a topic of inquiry and within the Inquiry Planning Cycle. Even during phases when families may not be directly engaging with the topic, effective teachers are always listening and responding to families as a way to deepen their understanding of children's interests and perspectives. In addition, teachers should make a point to highlight children's work throughout the unit, creating additional opportunities to engage families.

Given the opportunity, families can play an important role within an early learning program that adds value and sustainability to an inquiry-based curricular approach. As teachers are building and refining the approach to exploring a topic, children are bringing a variety of different experiences and prior knowledge. As we know from best practices, effective curriculum builds on these prior learning experiences (NAEYC & NAECS/SDE, 2002). As the child's first teacher, families have deep knowledge of these prior experiences, interests, and skills, as well as potential insights into the values and traditions that inform their child's worldview. So just as teachers need to gain an

understanding from children regarding their background knowledge and be intentional about including them in the curriculum-planning process, it is also important for teachers to gather this valuable information from families. By accessing and coordinating the use of this information from families, teachers give families a formative role in all phases of the inquiry cycle.

Highlighted below are the phases when teachers typically include families in the inquiry-based curriculum. Keep in mind that this work has the potential to unfold in different ways, but teachers are always concerned with keeping children connected to their families and aware of the unique strengths they bring to the learning community. Partnering with families to gather information and new ideas provides context and meaning to the curriculum and fosters a culture of collaboration on behalf of the child.



Phase 1- ASK (Tuning In): Once a topic of inquiry has been identified, teachers should create opportunities to engage with families to learn more about their unique experiences, skills, and values related to the topic of inquiry. Depending on each family's preferred methods of communication, teachers can reach out to families to let them know what is about to happen in the classroom, ask about their perspective on the topic, and solicit feedback on ways they can support children's learning. Families should be welcomed to join in the inquiry process as they are able, in the classroom setting and at home.

Phase 2- INVESTIGATE (Finding Out): During this phase, children are engaging in hands-on experiments, reading books, attending performances, taking field trips related to their interests and questions, and even using technology to support their efforts to find out more. Teachers can find ways to include families in these activities so that they reflect that connection to home, as well as the knowledge and experience of families. Families can share books, stories, or artifacts that contribute to the investigation or join the children on excursions that deepen their exploration. Teachers can even provide a journal for each family to record questions and experiences pertaining to the topic and keep it in a place that is accessible for families. To promote an ongoing exchange, teachers can also make journal entries that capture observations of each child throughout the unit. During this phase, teachers can work with children to plan for ways families can explore alongside them.



Phase 4- DISCUSS AND REFLECT (Going Further and Synthesizing): As children engage in journaling, drawing, or dictating new knowledge and exploring concepts and content in learning centers, teachers can find ways to display, or make visible, this new knowledge. This way, families can study and reflect on what children are learning and thinking about. This may spark additional interest or questions in families.

Sharing what children are doing on a daily basis in a way that is interesting and accessible to families encourages ongoing engagement and reinforces the active learning process.

Partnering with families in a way that yields opportunities for sharing information that adds meaning and context to the integrated curriculum requires building relationships. To begin, teachers and programs must shed their role as the experts and make it clear to families that parents are the experts on their own children. They also need to be proactive and create structures and expectations for ongoing communication and collaboration with families that support children's learning.

Past approaches have emphasized keeping families abreast of ongoing happenings in the classroom using newsletters and bulletin board displays and primarily providing information about their child's development at parent-teacher conferences. In years past, the way families primarily interfaced with programs was serving as field trip chaperones, contributors of materials, or fundraising coordinators. While these activities and roles are not insignificant, the level of partnership that strengthens the inquiry-based curriculum approach is grounded in a relationship that includes back-and-forth exchanges pertaining to those critical and nuanced pieces of information and respectful interactions and exchanges with families that support children's sense of belonging and engagement on a daily basis. Moving beyond surface-level involvement and exchange of information, toward collaborating with families in ways that acknowledge their strengths, and then using these assets to inform curriculum implementation, is a substantial shift for many programs.

When teachers use inquiry-based cycles of learning, they create opportunities to engage families, gather their unique perspectives, and incorporate their strengths and resources. This practice aligns with NAEYC's Principles of Effective Family Engagement (n.d.). Throughout the cycle, providing activities for children to do at home also offers a practical and meaningful way for families to join their child in the inquiry process. This increases the opportunities for children to continue learning and applying new knowledge and skills in other familiar settings. As key informants around their children's learning, families can work with their children to relay their out-of-school experiences in creative and authentic ways. In addition to inviting families to work with their children in their home environment and join the children during the daily programming, teachers can make available a journal for each family where teachers and families can make entries that include reflections, challenges, and new ideas to pursue related to the topic (Amaro-Jiménez & Semingson, 2011). These reciprocal interactions between teachers and families reinforce a sense of partnership and send the message that the teacher recognizes and values the strengths and attributes that each family contributes through ongoing engagement.

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Assessment Across Early Learning Programs

Within a high-quality early learning program, assessment is an essential practice for supporting each child's optimal growth and development. At its core, assessment is a systematic process of collecting and interpreting information to answer questions about children's growth and learning (Dichtelmiller, 2011). Experts in the field of early learning present assessment as a two-step process that includes teachers gathering information about children and then using that information to learn about children's characteristics to make informed decisions about appropriate teaching and caregiving for them (NAEYC, 2009; NAEYC & NAECS/SDE, 2003). It is important to connect program goals and standards to the ongoing assessment process. This helps teachers and programs know how they are achieving the results they desire for each child and for the program.

When teachers understand where each child is in relation to the learning goals, they can intentionally meet those needs through the provision of thoughtful experiences. As recommended in NAEYC's position statement on developmentally appropriate practice, "the experiences and assessment are linked...both are aligned with the program's desired outcomes or goals for children" (2009, 22). Therefore, data takes on meaning only when teachers and programs take the second step of the assessment process and use data to inform learning goals for each child, refine curriculum planning and implementation, and enhance communication and partnerships with families. Systematic and ongoing assessment, rather than intuition, supports intentional teaching practices and ensures all children's needs are addressed.

While early learning programs use assessment for a variety of purposes ranging from identifying children who may need additional services to measuring program accountability, this chapter focuses on assessments used in a formative way to support learning and instruction, which is one of the "beneficial purposes" of assessment identified in the joint position statement put forth by NAEYC and NAEYC/SDE. (NAEYC & NAECS/SDE, 2002). As teachers and programs engage in this type of ongoing assessment, they more clearly understand what children know, what children can do, and how they approach learning, and can make adjustments in "real time." With this information, teachers deepen relationships with young children and interact in more intentional and responsive ways as they support each child in reaching learning goals through concept-driven, inquiry-based curriculum implementation where the SELs are embedded in an integrated way.

Whether or not they are aware of it, effective teachers assess children and make adjustments to support learning and instruction every day, but to be accountable to all children, it's important to establish an intentional process for assessing children's learning.

Principles of Assessment for Young Children

To provide guidance, NAEYC's position statement on developmentally appropriate practice and assessing children's development and learning underscores that "the methods of assessment are appropriate to the developmental status and experiences of young children, and they recognize individual variation in learners and allow children to demonstrate their competence in different ways. Methods appropriate to the classroom assessment of young children, therefore, include results of teachers' observations of children . . . collections of children's work samples, and their performance on authentic activities" (NAEYC, 2009, 22).

For young children, assessment is not a test that occurs on a given day at a particular time. Instead, as part of the formative assessment process, teachers may record children as they answer or address open-ended questions and problems; collect children's drawings or other artwork; take photographs of children using materials and interacting with others; compile portfolios with children's input; create narrative descriptions during a focused observation; and create audio and video recordings or gather work samples from any content area showing growth and progress over time. Observing children within their natural learning environment and collecting documentation of children's learning through active and hands-on experiences provide an "authentic measure" of what children can do. By authentic, we mean that observation and documentation "reflect children's real world performance, rather than their performance in contrived, adult-determined tasks that may be unfamiliar to them" (Gronlund & James, 2013, 80). In these everyday and familiar settings, children are more relaxed and comfortable, which supports the assessment process.

In keeping with best practice, teachers consider the multiple factors that influence how and when children demonstrate their knowledge and abilities within this cyclical assessment process. So, in addition to noting the learning context and the knowledge demonstrated, it can also be helpful to record other relevant factors, such as type of activity, time of day, social circumstances, and sleeping and eating patterns.

Observing Children

Effectively observing children takes practice and requires teachers to pay particular attention to what children are learning, but also to be knowledgeable about the developmental continuum and what the next steps might be. Teachers should not only observe what children can do alone, but also what they can do with the assistance of peers and adults, so observing child-child and child-teacher interactions is a critical component of effective observations. Teachers should routinely ask families what they are observing at home related to these guiding questions. As teachers collect evidence, they should record the knowledge observed as well as information about the context of the demonstrated knowledge. Highlighting this information will help to teachers organize, and, therefore, more efficiently use the evidence. (Schwartz & Copeland, 2010, 127)

To give focus to the process, teachers decide what it is they want to learn about children's learning or knowledge. Once the purpose is clear, teachers begin to collect evidence from

a variety of sources. During this step, teachers should record what they see children doing and hear children saying, but refrain from interpreting these interactions or evidence until the next phase, reflecting on observations.

Documentation

To enable effective assessment, teachers must create a management system for recording and storing documentation. This system includes a data collection schedule that ensures each child's holistic needs are met in addition to supporting documents that help teachers to capture essential information in a systematic way. Programs should make available a space accessible to teachers within the classroom that is intended for storing children's documentation. Applicable documentation tools, such as writing instruments, sticky notes, notepads, clipboards, and recording equipment, should be strategically placed throughout the classrooms where observations are most likely to occur on a daily basis. While children may also have similar materials at their level, teachers should keep these materials out of children's reach.

One important feature of inquiry-based curriculum is that teachers can involve children in the assessment process. Teachers can design questions to guide children as they reflect on their work. For example, a teacher might ask:

- » Which of these shows us what you have been trying to figure out as you've played this week?
- » Does one of these (pictures, stories, papers) capture something you have been trying to learn?
- » Do you see something here that makes you know you are learning things while you are here?
- » When you look over these collections, can you think of something you would like to learn next? How would you go about that?
- » Who knows about this and might help you?
- » What will you do to get started? (Curtis & Carter, 2008, 117)

Giving children a fundamental role in the assessment process provides them an opportunity to reflect on their work and become more aware of the experiences as they relive them and talk about them with their peers and teachers. Reviewing documentation with children “provides the opportunity for children to increase their understandings and appreciation for what they have learned and the skills they have acquired” (Schwartz and Copeland, 2010, 44). Giving children ownership of their learning by recognizing their central role in the formative assessment process is well-aligned with the successful implementation of the concept-driven, inquiry-based curriculum that is being rolled out across the Kingdom.

Reflecting on Observations

This next step includes taking the time needed to reflect upon and make sense of the data. Independent reflection happens during designated times when teachers are not directly interacting with children. With the support of program leaders, teachers need

dedicated time to reflect upon and analyze data independently as well as in partnership with other program staff and families. In addition, program leaders need to create and protect time for teachers to incorporate assessment finding into the curriculum planning process. To gather perspectives beyond their own, teachers should also routinely discuss the observation data with other teachers and families, maintaining confidentiality at all times. During the reflection and analysis process, families can help answer questions and interpretations and share strategies and observations from home. Analyzing the data and using the standards and any additional criteria valued by the program are essential to knowing how to meaningfully adjust the learning experiences to better support children's knowledge and skill-building.

Observation data should be analyzed through the lens of developmentally appropriate practice and include these essential reflections: What have I learned about this child? How does this knowledge reflect what is known about children's development and learning? What does this mean for the early childhood curriculum and environment? How does my knowledge of the child's family and culture complement or contribute to my assessment of strengths, challenges, and curricular and environmental needs (Ernst, 2010)? Making informed adjustments to the environment and/or interactions completes the assessment cycle and occurs within the context of a partnership between programs and families.

Assessing Teacher Practices

It is well established that teacher effectiveness is linked to children's learning. So, in addition to measuring children's progress, it is important to assess teacher's instructional practices and other program quality indicators to determine whether an early learning program is meeting the comprehensive needs of children. Teacher and program assessment tools should be aligned to research-based practices that promote children's positive growth and development and other benchmarks driving continuous quality improvement efforts. With a commitment to partnering with families and culturally responsive practices, teachers and program leaders examine assessment data in combination with family and professional experience and values. Those directly working with children should feel empowered to tap into various sources of knowledge as they consider and develop plans for improvement (Rafanello, 2009, 46). The data collected from teacher and program assessment is used in a formative way, with the primary goal being to provide feedback for improvement and to inform targeted and ongoing professional learning opportunities for teachers.

With a clear understanding of the significant impact teachers have on children's learning, it is important to recognize that their work is complex and dynamic in nature and requires ongoing support and professional development. In addition, the teachers in programs typically have a range of professional experience, education, and training. To address the needs of each teacher in an equitable way requires tremendous thought and attention by program leaders to yield the systematic and incremental improvements that are desirable over time. While providing teachers with professional development opportunities is a widely accepted strategy for supporting improvement, the approach program leaders take to professional learning can "either enhance or diminish teacher's capacity" (Louis, Hord, & Von Frank, 2017, 1). More traditional program models

highlight program leaders as the sole source of solutions, and program leaders may see their role as fixing or remediating teachers. Research says that effective schools operate as a learning organization, that program leaders are the lynchpin to program quality, and that their role includes recognizing teachers' strengths, abilities, and interests and creating the conditions for self-directed and collaborative learning.

Shirley Hord of Learning Forward, a professional association devoted exclusively to those who work in educator professional development, outlines the basic building blocks for a program to become a learning organization where “professional learning is the air teachers breathe every day”(Louis, Hord, & Von Frank, 2017, 27). In a learning organization, professional learning for individuals is important, but there is a notable shift towards organizational learning, which opens up more possibilities for sharing resources throughout the program and developing leadership capacity at all levels of the program. The first element Hord identifies is “Meaning,” which involves coming to a shared understanding of what professional learning means within a program--one that reinforces the responsibility of all educators to improve their practice and that working collectively as a team is more powerful than what any individual can accomplish alone (Louis, Hord, & Von Frank, 2017, 29). The second element, “Measurement,” is an ongoing commitment to assessing progress around what is working well and what needs to be improved. This reflection process keeps professional learning in clear view at all times and reinforces the commitment to taking action to improve over time. The third element, “Management,” is keeping the program focused on the shared target of meeting all children’s needs and, therefore, embedding professional learning opportunities into the daily workings of the program (Louis, Hord, & Von Frank, 2017, 29-31).

For teacher assessment, there are three key types of observation-based assessments used to collect data and inform classroom and program-wide professional learning opportunities: self-assessments, peer assessments and supervisor assessments.

Self-assessment is a powerful approach for teachers to identify their strengths and areas of growth. As teachers work to understand and use the SELS, for instance, there are self-assessment worksheets within the Saudi Early Learning Standards Implementation Program: Teacher Guide to support their current interests and priorities. Employing these worksheets helps teachers to become more reflective and intentional as they work to implement and sustain the standards. To deepen the self-assessment process, teachers can work with their supervisor to identify other teachers who share similar concerns or goals and form communities of practice (CoP). In a CoP, teachers come together regularly and learn how to more effectively meet their shared goals. CoP participants develop their practice through a variety of activities such as: joint problem solving, requests for information, seeking experience, documentation projects, classroom visits, and mapping knowledge and identifying gaps. Teachers can share knowledge, work collaboratively to address challenges, and support one another’s learning process. This kind of shared knowledge development impacts individual teachers as well as the whole program due to the collaborative experience a CoP provides. (Louis, 2016, 24)

The **peer assessment** approach builds on the collective strengths and leadership capacity of teachers within a program. The Center for Teaching Excellence of the University of Virginia (2015) offers guidance on two variations of this approach. In the “feedback model,” the teacher asks the observer to provide specific feedback about

strengths and areas for improvement during an observation. In the “coaching model,” the teacher asks the observer to help her figure out how to address problems and strengthen her practice. In both cases, there is a pre-and-post observation discussion that occurs close to the time of the observation. And, the quality of the feedback that observers provide affects the impact of this assessment approach. Constructive peer feedback has the following characteristics: the language is descriptive, rather than evaluative; the feedback is specific and focuses on the what and the how versus the why; the feedback takes into account the needs of the receiver and giver of feedback; the feedback is timely and includes sharing information rather than giving advice and, finally, the amount of information is manageable for the receiver (Berquist and Phillips, 1975). The Teacher Guide has worksheets to support this peer observation process, as well. Peer assessment offers the opportunity for those who work in similar roles to support one another in a structured and strengths-based way. Using resources within a program to strengthen program quality builds capacity, engages teachers in an active learning process, challenges old beliefs, and helps to build consensus around what quality early learning means and looks like. (De Neve, Devos & Tuytens, 2015.)

Supervisor assessment within a learning organization requires that program leaders assume a role of mentor versus that of performance supervisor. The program leader can partner with teachers to engage in a reflective process that will help to organize and make sense of data being collected through various assessment approaches. As program leaders take more of a mentoring role, they are supporting teachers to reflect on and develop their personal practice. There are three critical components of this reflective, supervisory process that shape supervision as a context for learning and professional development. Reflection is the first component of this supervisory relationship, and it allows teachers to create some distance from the daily work and think more deeply about strengths and challenges impacting the work. Program leaders and teachers can come together to review data from a more holistic perspective that considers experiences, thoughts, and emotions related to the identified challenge. The role of the supervisor is to facilitate a collaborative process where the teacher can come up with ideas for next steps and feel safe trying out new ideas. Supervisors work with teachers to set their own goals that are aligned with organizational objectives and to empower staff to be self-reflective and make changes based on these reflections. Collaboration-- the second element-- requires a trusting relationship and open communication. Collaboration opens up the possibility for teachers to take on more responsibility in decision-making and utilizing their talents in new ways. Regularity is the other essential characteristic of this reflective supervisory relationship. For this supervisory relationship to be useful, there must be a commitment from both the teacher and program leader to protect the agreed upon meeting times. Regularity supports building trust and underscores the value of the investment of taking this time. (Parklakian, 2001)

In a learning organization, teachers and program leaders have important roles. Teachers must be willing to share resources, their experience, and ideas with peers. Teachers must be open to constructive feedback to improve their practice. Teachers must be committed to the process of improving, and this process takes time. So, within a learning organization, teachers demonstrate commitment, dedication, and a willingness to try new strategies. Using the data to guide the process helps to keep the focus on the children and reinforce the collective responsibility teachers and program leaders have to meet the holistic needs of each child.

Program leaders play a significant role in establishing a clear purpose for the work in an early learning program and cultivating an organizational culture that supports teachers as lifelong learners. Furthermore, leaders must provide teachers with access to the resources they require to engage in targeted professional learning opportunities. Program leaders are responsible for taking the role of lead learner and making transparent their own learning and reflective processes. This approach validates the importance of these processes that promote shifts in thinking and approaches to learning.

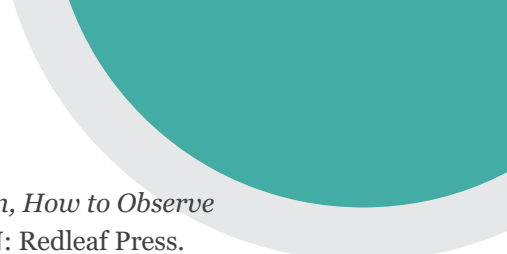
Conclusion

Strong professional learning approaches require the leader to maintain a steadfast focus on learning that is happening now and continuously make connections to the larger and unwavering focus of meeting the needs of all children. Leaders cannot single-handedly create a learning school, but without their engaged guidance one will rarely emerge, and even more rarely be sustained. (Louis, Hord, & Von Frank, 2017, 31)

Well-planned and effective assessment can inform teaching and program improvement and contribute to better outcomes for children. The focus of this chapter has been on assessment as an ongoing process that benefits children. Formative assessment of children provides teachers and families with information that can be used to improve the quality of their educational environments and experiences. Additionally, assessment processes inform a teacher's capacity to reflect and make changes in her instructional practices that will be more intentional and tailored to support children's further learning and development. Having a common approach to the formative assessment process ensures that teachers and children have the same opportunity to be successful. (Louis, Hord, & Frank, 2017, viii)

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Appendix A. Sample Concepts by Subject Area

Concept: Broad, transferable theme that transcends place, time, and cultural context. A concept can often be experienced and explored by young children long before it can be named.

Social and Emotional Concepts

- » Identity
- » Families
- » Communication
- » Citizenship/Belonging
- » Emotions
- » Routines and Rituals
- » National Identity

Physical and Bodily Concepts

- » Spatial Relations
- » Movement
- » Form and Function
- » Balance
- » Strength

Mathematical Concepts

- » Size
- » Shape
- » Quantity
- » Weight
- » Distance
- » Numeracy
- » Seriation and Order
- » Patterns/Repetition

Scientific Concepts

- » Nature
- » Force and Motion
- » Friction
- » Gravity
- » Trajectory
- » Properties of Matter
- » Properties of Light
- » Cause and Effect
- » Similarity and Difference

Language and Literacy Concepts

- » Symbolic Representation
- » Print Awareness
- » Letter Knowledge
- » Functions of Language
- » Communication
- » Sounds and Patterns of Speech
- » Rhyme
- » Rhythm and Cadence of Speech

Artistic and Aesthetic Concepts

- » Color
- » Sound
- » Rhythm
- » Symbolic Representation
- » Movement

Appendix B. Inquiry-Based Unit Plan Template

Topic of Inquiry:

Age Level:

Anticipated Unit Start Date:

Pre-Planning Phase

Assessing children's prior knowledge and interests . . .

1. How do I know that children are interested in this topic? (What materials are children gravitating toward, what questions have they asked, and what do you hear them talking about?)

2. What evidence is there of prior learning about this topic, and how are children demonstrating this?

Assessing own knowledge about the topic . . .

1. What do I know about this topic that will enable me to scaffold and deepen children's learning?

2. What resources are available to expand upon my knowledge?

Assessing the external influences . . .

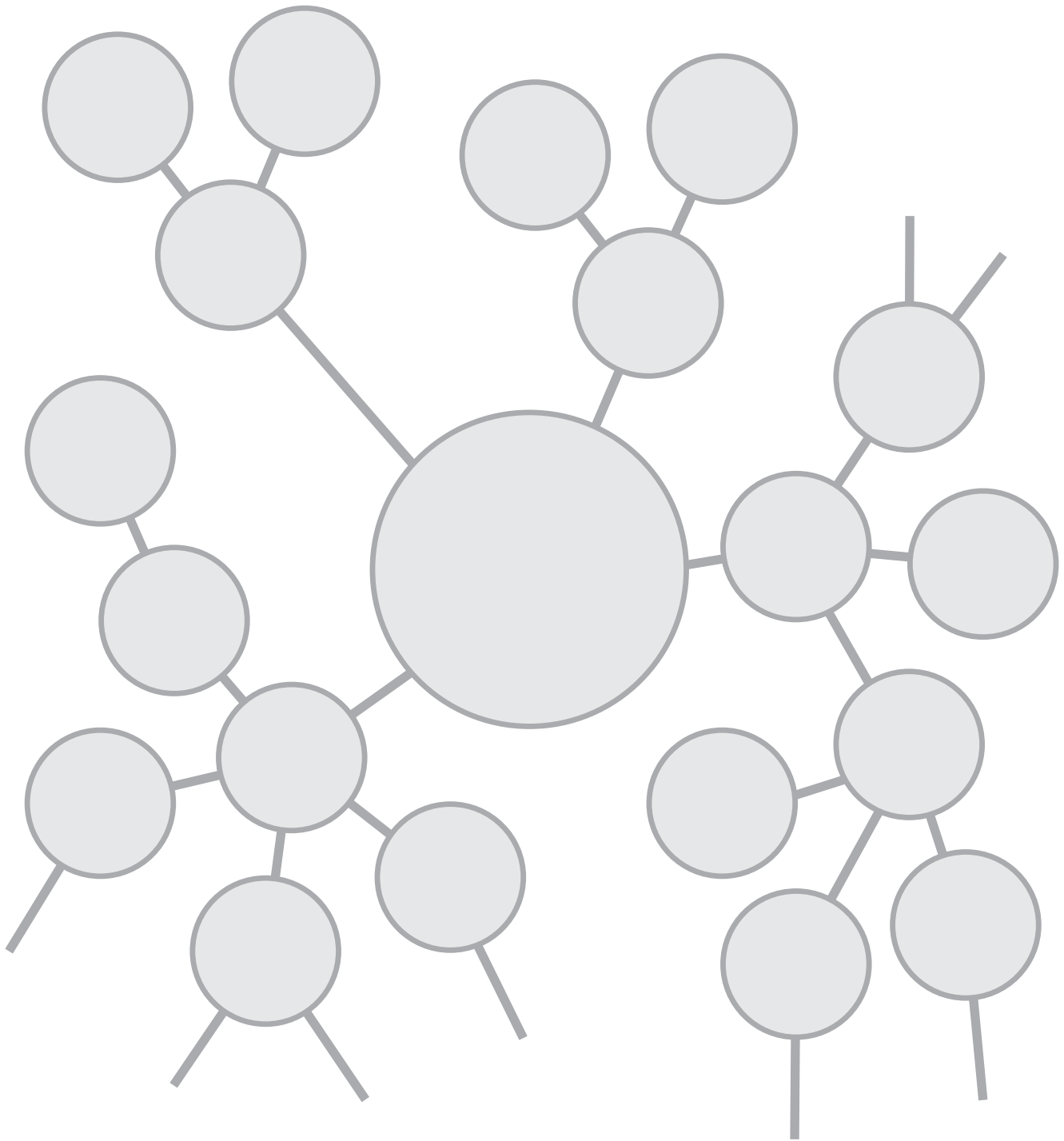
1. What information will I collect from families to better understand children's prior experiences with this topic?

2. What exists in the community that could be a resource (e.g., outdoor spaces, public services, places of worship, libraries, museums, etc.)?

3. What have my colleagues done, and what insight can they share?

Topic Mapping

What are some ways that this topic could expand and connect to other topics and ideas over time?



Phase 1- ASK (Tuning In)

Provocation Activity

How will I present the topic to the children so that they can begin to explore and formulate questions?	What materials will I need?
What questions will I ask after the children have had a chance to interact with the topic? (Questions should lead children to consider and share what they know, notice what they are wondering, and hypothesize about what they will learn.) How else might I gather this information from children?	What theories and what questions do children have about this topic?

Phase 2- INVESTIGATE (Finding Out)

Brainstorm and capture your general ideas here. Use the weekly and daily plan templates to describe activities in more detail.

What kinds of experiences will I facilitate to help children answer their questions and challenge their theories about the topic . . .	
Activities/Experiences	
During whole group times?	
During small group times?	
In the learning centers?	
Outdoors?	
During meals?	
During routines (i.e., hand washing, diapering/toilet, etc.)?	
At home and in the community?	

Phase 3- CREATE KNOWLEDGE (Sorting Out)

In what ways are children demonstrating and communicating their new learning? How will I document this?

How will I help the children to organize and communicate this learning to others (each other, families, others in the kindergarten, community members, etc.)?

Phase 4- DISCUSS AND REFLECT (Going Further and Synthesizing)

What related topics of inquiry are emerging in children's play and interactions?

What actions will I take to encourage children to explore their interests (e.g., planning an activity or experience, asking questions, engaging in play with children in the learning center, introducing a new item, etc.)?

Phase 5- TAKE ACTION (Applying)

How does this learning apply to other aspects of children's lives? How will I help children to see those connections?

What topics make sense to pursue next?

How will I involve the children in planning for their future learning?

Post-Unit Reflections

It is highly recommended that teachers address the discussion points below within a peer community and/or with a supervisor.

What was accomplished during this unit that I am proud of or enthusiastic about?

What was surprising about the children's actions, capabilities, growth, or inhibitions?

What opportunities to promote children's learning would I like to take better advantage of in the future?

What 1 or 2 specific, realistic, and implementable changes will I make to my teaching practice in the future?

Weekly Block Plan Template

Topic of Inquiry (Unit): Age Level: Week Start Date:				
Notes from the prior week:				
Concepts to Explore This Week:				
Content and Character Learning Opportunities:				
Sunday	Monday	Tuesday	Wednesday	Thursday
				

Character Learning Symbols



Communication



Collaboration



Critical Thinking



Creativity



Perseverance



Attention

Content Learning Symbols



Approaches to Learning



Social and Emotional Development



Language and Literacy



Cognition and General Knowledge



Patriotism



Islamic Education



Health and Physical Development

	Sunday	Monday	Tuesday	Wednesday	Thursday
Daily Topic/ Question					
How will the children interact with this question or topic during . . .					
Whole group activities?					
Small group activities?					
Read Alouds?					
Outdoor learning?					
Learning centers?					
Meals and other routines?					
At home or in the community?					

How will the teacher(s) . . .

Make the necessary advance preparations?

Engage children in shared decision-making?

Plan for the diverse learning styles and abilities represented in the classroom?

Document children's learning throughout the week?

Gather information from families about how children are extending their learning at home and in other settings?

Appendix C. Daily Plan Template

Topic of Inquiry: Age Level: Anticipated Unit Start Date:

Daily Question or Topic:		
Time and Activity	Learning Goals	Procedures and Roles
8:00-8:20 Arrival		Key Questions: New Vocabulary: Choices within the activity:
8:20-8:40 Morning Circle		Key Questions: New Vocabulary: Choices within the activity:
8:40-9:20 Outdoor Play		Key Questions: New Vocabulary: Choices within the activity:

Daily Question or Topic:		
Time and Activity	Learning Goals	Procedures and Roles
9:20-12:00 Learning Centers and Small Group Activities		Key Questions: New Vocabulary: Choices within the activity:
12:00-12:30 Lunch		Key Questions: New Vocabulary: Choices within the activity:
12:30-1:00 Read-aloud and Closing Circle		
1:00 Dismissal		

Appendix D. Environmental Assessment Tool

Program Name:

Classroom teacher(s):

Observation date:

Observer's name:

Room Arrangement	Not at all	Somewhat	Consistently

Furniture and Equipment	Not at all	Somewhat	Consistently

Usage of Space and Materials	Not at all	Somewhat	Consistently

Culturally Responsive Environment	Not at all	Somewhat	Consistently

Observer Recommendations/Next Steps:

Appendix E. Teacher-Child Interaction Observation Tool

Program Name:
Classroom teacher(s):
Observation date:
Observer's name:

Social and Emotional Support	Not at all	Somewhat	Consistently
Behavioral Support	Not at all	Somewhat	Consistently
Cognitive Development Support	Not at all	Somewhat	Consistently
Language Development Support	Not at all	Somewhat	Consistently

Observer Recommendations/Next Steps:



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