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**FEATURE**

# Sequence and milestones: Planning for meaningful learning and authentic assessment

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**E**arly care and education requires a delicate balance among the needs of individual children and the group, their families' expectations, your own professional skills, and your program's needs and requirements. As you plan for success, consider the following scenario.



At 10:30 a.m., Ms. Allen gathers the 4-year-olds for story time. Midway through the Spanish folk tale about the clever coyote, the door opens slowly and Allison comes in. She twists a strand of her uncombed brown hair and lowers her eyes. It's the fourth time this month that she has arrived late, but Ms. Allen knows that Allison's mom works a night shift. She welcomes Allison to the group.

"Come sit by me," says Jenny, a lively, red-haired girl who likes to point out that the freckles on her face are angel kisses. She scoots over on the rug and pats the empty space with her hand. "I know all 'bout this story. I'll read it to you later."



**A**ll early care and education planning should start with the individual. Each of us has unique genetic traits, temperaments, and learning styles. These traits—combined with family characteristics, the environment, cultural and racial/ethnic expectations, and experiences—influence the way children learn and socialize.

Children's differences, including their developmental strengths, needs, and delays, affect the way they learn. Differences also affect their interactions with adults and other children, and how you arrange the environment and set learning goals.

In planning for individual differences, successful

teachers rely on two basic principles of child development. One is sequence, the order in which children typically develop, and the second is milestones, the age range during which most children master particular skills.

## Sequence

Information about developmental sequence is the result of years of detailed, well-documented observations of infants, toddlers, and young children. These observations help parents, physicians, and educators predict—and be ready for—a child's development across all domains.

We can predict, for example, that an infant will learn to roll over, push up to crawl, and sit unassisted before learning to stand and walk. Each skill can be observed independently and the sequence anticipated and marked.

At the same time, we can observe individual differences. One child might roll to the left and struggle



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with rolling right as fluently, while another might scoot with belly to the floor instead of crawl on hands and knees. Both children are reflecting individual uniqueness and also behaviors that are consistent with a predictable developmental sequence.

## Milestones

Using what we know about sequence, we can mark milestones, sometimes referred to as ages and stages, in a child's development. Milestones mark the particular skill we expect children to attempt, practice, and master by certain ages. Milestones too are tracked across all developmental domains: cognitive, social, emotional, physical, and language.

### EACH OF US HAS UNIQUE GENETIC TRAITS, TEMPERAMENTS, AND LEARNING STYLES.

We can predict, for example, that most 18- to 26-month-old toddlers will be wobbly on their feet, can build a tower of four to six blocks, have a vocabulary of 50 to 300 words, and are most comfortable in the company of familiar people.

Being familiar with developmental milestones will allow you to identify both children who are within the expected range and those who may need special assistance to overcome developmental lags or delays.

Heredity and environment impact development. Some influences are introduced during a mother's pregnancy including chromosomal abnormalities, parental genetic characteristics, and maternal habits, nutrition, or disease. Other influences occur after birth, such as caregiving behaviors and routines, parental expectations, and the environments in which children spend time.

Regardless of influences, a child's skill development seldom proceeds in a continuous upward course. Instead it's jagged, with peaks (growth spurts) and valleys (regression to earlier stages), and steady, balanced plateaus (periods of no measurable growth) that allow a child to integrate and practice new skills.

Each developmental domain reflects this jagged course. You can observe this uneven development

when a child seems to put all energy into mastering one skill to the exclusion of all others. For example, a 3-year-old may be working on physical development (like pedaling a tricycle forward or consistently using the toilet) and have little time for social interactions that require language. A different 3-year-old might talk up a storm but not yet run with agility and balance.

## In a nutshell

The following descriptions encapsulate the broad categories of children's developmental sequence and milestones. Observe children reflectively and consider these behaviors and skills. Note the date you first observe the behavior and continue to chart the child's practice and proficiency. (See *childcarequarterly.com*, Fall 2011, "Loving's Not Enough" for more on observation). The resource list offers suggestions of more in-depth developmental profile tools.

### Birth to 6 months

**Physical development.** Muscle control, vision, hearing, sleep patterns, nursing and bottle-feeding habits, elimination habits

**Social development.** Attachment to parents and other primary caregivers, self-awareness, awareness of others

**Emotional development.** Demonstration of feelings, control of emotions, temperament

**Cognitive development.** Reflexes, sensorimotor stages, object permanence

**Communication.** Physical structures of the mouth, initiating and responding to sounds, vocalizing to communicate

### 6 to 12 months

**Physical development.** Muscle control, vision, hearing, sleep patterns, tooth eruption, response to solid foods, elimination habits

**Social development.** Attachment to primary caregiver, self-awareness, recognition of self in mirror, awareness of others, response to strangers

**Emotional development.** Demonstration of increasing range of emotions, control of emotions, temperament

**Cognitive development.** Sensorimotor stages, object permanence, causality, imitation

**Communication.** Babbling; sound production and

imitation; variety in intensity, volume, pitch, and rhythm of sounds; emotional and physical states reflected in cries

## 12 to 18 months

**Physical development.** Muscle control, locomotion, tooth eruption and cleaning, self-feeding and food preferences, elimination awareness

**Social development.** Concept of self and egocentrism, awareness of others including range of responses to different people, variety in attention-seeking behavior, shyness

**Emotional development.** Expression of emotions including negativism and tantrums; temperament including distractibility, persistence, and adaptability

**Cognitive development.** Object permanence, causality, imitation, play

**Communication.** Imitation of sounds and words, response to commands, identification of pictures and objects, making marks with tools

## 18 to 24 months

**Physical development.** Locomotion, gross and fine motor skills, tooth cleaning, interest in toilet

**Social development.** Egocentrism, ownership, interactions with others, attention-seeking behaviors, parallel play

**Emotional development.** Quest for approval; emotional regulation; temperament including distractibility, persistence, attention span and adaptability; engagement in fantasy

**Cognitive development.** Trial-and-error, causality, imitation, memory, symbolic play

**Communication.** Language fluency, grammatical awareness, multi-step directions; sentences

## 24 to 36 months

**Physical development.** Motor control including standing on one foot, climbing, jumping; spoon, fork, and hand for eating; teeth cleaning; toileting

**Social development.** Recognition of own skills, demonstration of independence, recognition of emotions in others, offering assistance

**Emotional development.** Self-esteem, verbal expression of emotions, demonstrating characteristic responses to new situations

**Cognitive development.** Non-verbal classification; verbal flexibility; math concepts including classification, quantity, and space

**Communication.** Significant increase in vocabulary and syntax fluency, grammatical awareness, multi-word sentences, controlled scribbling

## 36 to 48 months

**Physical development.** Motor control including walking on a line, balancing on one foot, leaping and landing with agility and balance; copying crosses and circles; attention to self-help skills including buttoning, pouring, and washing; consistent use of dominant hand for tasks

**Social development.** Cooperative play, dramatic and pretend play, frequent changes in social alliances, demands for independence

**Emotional development.** Sense of self-worth, verbal expression of emotions, demonstrating characteristic responses to new situations, boasts and stories with claims of boldness and success

**Cognitive development.** Classification skills; demonstration of verbal flexibility; building math concepts including size, quantity, and space; counting by rote; reproducing some letter shapes

**Communication.** Significant increase in vocabulary and syntax fluency, use of prepositions and contractions, awareness of grammatical rules, multi-word sentences, response to multi-step instructions, reciting and singing simple songs and rhymes

## Dispositions for learning— and universal needs

Skill development varies according to an individual

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child's interests, personality, learning style, and temperament, and a child's disposition for learning. Lilian Katz (1995) described dispositions for learning as the relatively enduring habits of the mind or characteristic ways of responding to experiences in different situations.

CHILDREN NEED TO FEEL SUPPORTED  
IN THEIR EFFORTS,  
EVEN WHEN THEY FAIL.

These attitudes develop in infancy and influence a child's motivation to explore, discover, and understand the world throughout life. Because young children learn through positive and supportive interactions with other people and the environment, teachers and parents are powerful influences on children's developmental successes. Work to foster children's curiosity, optimism, resilience, concentration, creativity, and joy in learning (Goleman 2006).

Children, then, regardless of ability, temperament, or age, have common, basic needs:

**Acceptance.** Children need affection and genuine positive regard—sometimes called respect. Work to overcome cultural, racial, or economic bias, and strive to accept children as human beings, regardless of ability, personality, or behavior.

**A safe and supportive environment.** Materials, equipment, furniture, and tools must be serviceable, in good repair, and appropriate to children's developmental skills. Carefully follow and practice sanitation, hygiene, and nutrition guidelines.

**Guidance.** Children need to feel supported in their efforts, even when they fail. They need consistency, an understanding of behavioral expectations—and the consequences for violations—and opportunities to engage in the basics of the social contract, including cooperation, honesty, commitment, and respect.

**Opportunities for active learning.** Children learn from hands-on experiences that encourage them to ask questions, form opinions, experiment, discover, and draw conclusions. They need activities appropriate to their developmental levels and frequent

interactions with other children and adults to discuss and compare experiences.

When these basic needs are met, the children are more likely to fully develop skills for life.

## References

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## Resources

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