

Maslow: Basic Needs and Learning

Abraham Maslow described a hierarchy of needs common to all human beings. The hierarchy demonstrates that basic needs must be met before children are able to focus on learning.

Physiological needs are hunger, thirst, and bodily comfort. Because a hungry child has difficulty focusing on learning, many early childhood programs provide breakfast, snacks, and lunches. Similarly, children with medical concerns or physical disabilities may require physical supports or special care to function successfully in school.

Safety is security and freedom from danger. When children know they are protected and that no harm will come to them, they feel free to reach out to others and explore their environment. Children with disabilities may require extra attention to meet their needs and feel safe. For example, a child with a visual impairment may require help orienting to the setting of the classroom, and one with physical impairments may require environmental adaptations.

Belongingness is the sense of being comfortable with and connected to others that results from receiving acceptance, respect, and love. Connectedness or belongingness, in turn, promotes learning. However, for some young children feeling that they belong is not easy. Often they have trouble believing that they are worthy of being loved. As a result, they may exhibit behavior that tests acceptance, or they act out, attack others, or behave in ways that show they deserve to be rejected. These children benefit from being around adults who are consistent and caring, not harsh and judgmental.

Esteem is self-respect and respect from others. Esteem emerges from daily experiences that give children the opportunity to discover they are competent and capable learners. If children's experiences are predominantly successful and positive, their sense of self grows. If they are predominantly unsuccessful, their sense of self suffers. A supportive environment that offers children new tasks they can master, and that recognizes their efforts, helps children see themselves as respectable, capable individuals.

In keeping with Maslow's theory, the first priority of *The Creative Curriculum* is to meet the basic needs of children. While the Curriculum recognizes that teachers can do little to change the circumstances of children whose basic needs are not met outside the classroom, it does accept the challenges these children pose when they are in school.

Maslow:

There is a hierarchy of needs common to all human beings.

Inside the classroom, the *Creative Curriculum* teacher creates an atmosphere in which children are safe, feel emotionally secure, and have a sense of belonging. It describes activities and teaching strategies that are challenging but within children's reach. It also suggests giving children choices and a role in determining how they will learn. These practices—which are core to the Curriculum—help children to feel competent, make decisions, and direct their own learning.

Erikson: The Emotions and Learning

Erik Erikson's theory of the "Eight Stages of Man" identifies a sequence of issues that need to be resolved for healthy development to occur. According to Erikson, each stage builds on the success of earlier stages. The stages children pass through before and during preschool are: trust vs. mistrust (infancy), autonomy vs. shame and doubt (ages 1–3), and initiative vs. guilt (ages 3–5). For each, Erikson describes what adults need to provide in order to help children meet the challenges facing them.

Erikson:
A sequence of issues
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Trust vs. Mistrust. Trust involves believing that the world around you is safe, reliable, and responsive to your needs. Infants who receive consistent and loving care learn trust. Infants who cry and get no response, who are not fed when they are hungry, and who are not comforted when they are hurt, develop mistrust. In a *Creative Curriculum* classroom teachers establish a reliable, safe atmosphere that reinforces the trust children learn at home and helps children who mistrust because of difficult experiences.

The Creative Curriculum shows teachers how to

- know and develop a positive relationship with each child
- follow a consistent schedule
- carry through on announced plans and promises

Autonomy vs. Shame and Doubt. Autonomy, or independence, is acting with will and control. It involves a sense of one's power that is built on the foundation of trust described in Erikson's first stage of development. Children develop autonomy when adults give them a chance to do things on their own. When adults make excessive demands or level criticism that devalues children's efforts, they develop shame and doubt. In *The Creative Curriculum*, teachers take care to help children become autonomous by providing structure while allowing them to regulate their own behavior. Teachers honor children's efforts to become independent and foster their sense of competence.

The Curriculum shows teachers how to

- set up an environment where children can find and return materials on their own
- provide appropriate play materials that support and challenge children's abilities
- help children express their feelings and resolve conflicts in constructive ways
- provide appropriate real-world responsibilities and jobs
- encourage children to see tasks through to completion

Initiative vs. Guilt. Developing initiative means responding positively to challenges, taking on responsibilities, enjoying accomplishments, and becoming purposeful. In this stage, children direct their energy toward tasks and begin to develop a sense of future possibilities. Children with initiative are eager to try out new materials and ideas. When adults belittle children's work, guilt sets in. Because resolving initiative vs. guilt is the primary achievement of the preschool years, *The Creative Curriculum* places a high priority on creating a classroom environment that encourages children to experiment, explore, and pursue their own interests.

The Creative Curriculum encourages children to experiment, explore, and pursue their own interests.

The Curriculum shows teachers how to

- offer children choices
- give children ample opportunities for creative expression
- allow children freedom to explore the environment
- permit children to get messy during play
- encourage children to work independently
- value children's ideas
- promote problem solving and appropriate risk taking

By taking into account the first two stages of development in Erikson's scheme, which children typically negotiate before entering preschool, *The Creative Curriculum* can reinforce early positive growth. At the same time, it also can remediate the difficulties of children whose earliest years were less supportive of positive growth. The focus in the Curriculum on the third stage, initiative, opens the door to lifelong learning.

Learning and the Brain

Findings from research on learning and the brain provide concrete evidence of how and when children learn best. Recent innovations in medical technology have led to new insights. Here are some of the elements of brain research that have informed *The Creative Curriculum*.

What We Know From Brain Research	Implications for Teachers
Learning is not a matter of nature vs. nurture; it is both. We used to think that heredity (what a person is born with) was more important than environment (what he or she is exposed to) in determining how much a person learns. In fact, both have a major role to play.	IQ is not as fixed as we once thought. All children benefit from rich experiences in early childhood. <i>Creative Curriculum</i> teachers can have a profound influence on all children's learning.
The human brain grows as a result of learning and experience. Learning changes the physical structure of the brain. When a new skill or concept is learned, a brain connection (known as a synapse) is formed.	During the first five years, trillions upon trillions of synapses are formed in response to learning experiences. In <i>The Creative Curriculum</i> , teachers provide many experiences for children, so more connections are made.
Learning needs to be reinforced. For a connection to become permanent, it must be used repeatedly. Connections that are not used eventually disappear.	Children need many different opportunities to practice new skills. Rather than jumping from one topic to another each week, <i>Creative Curriculum</i> teachers allow children to explore concepts over time.
Emotions play a significant role in learning. In order to learn, children need to feel safe and confident. Stress, on the other hand, can destroy brain cells and make learning more difficult.	Secure relationships with family members, teachers, and other significant people in a child's life are essential to learning. How <i>Creative Curriculum</i> teachers treat children is as important to learning as what they teach.
Nutrition, health, and physical activity affect learning. Movement stimulates connections in the brain. A well-balanced diet, sufficient sleep, and plenty of exercise support healthy brain growth.	Children are active learners. Daily exercise and time outdoors are essential for health and well-being. Many programs provide health screenings as well as meals and snacks.
The brain is very receptive to certain kinds of learning in the preschool years. Children learn emotional control, form attachments to others, and acquire language skills. Appropriate intervention can promote learning.	<i>Creative Curriculum</i> teachers focus on skills that are the foundation for all learning. The development of social/emotional competence and language skills is emphasized in <i>The Creative Curriculum</i> .

In all, brain research has found physical evidence to support what Maslow, Erikson, and other prominent theorists have taught us. It shows that the wiring in children's brains is positively affected when they are healthy and well fed, feel safe from threats, and have nurturing, stable relationships. The central role assigned to teachers' relationships with children in *The Creative Curriculum* is a direct outgrowth of this understanding.

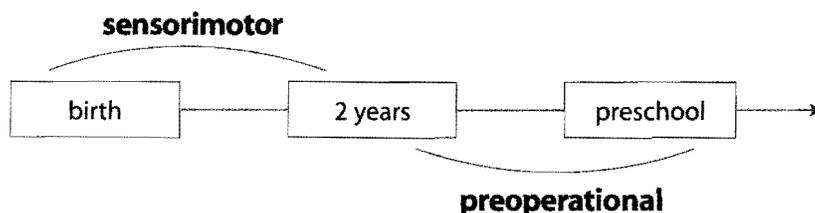
Piaget: Logical Thinking and Reasoning

Jean Piaget observed how logical thinking unfolds. Like Erikson, Piaget divided development into stages. He showed that young children think differently from older children and that older children think differently from adults. For instance, take the concept of quantity. If you show young children two lumps of clay that are identical and ask if each lump has the same or different amount (quantity) of clay, they will say, "The same." If you then flatten out one lump like a pancake and ask the same question, they answer, "Different." Only as they grow do they learn conservation of matter, that a given amount of material stays the same no matter how it is reshaped or how many times it is divided.

Piaget:
Logical thinking unfolds
in stages.

Piaget taught that children refine their logic and construct an accurate understanding of the world by manipulating concrete objects. Working with objects of different sizes, shapes, and colors, they learn to sort, classify, compare, and sequence. Their knowledge grows as they experiment, make discoveries, and modify their earlier way of thinking to incorporate new insights. Piaget calls the process accommodation and assimilation. Accommodation is making observations that unseat early misconceptions in logic. Assimilation is establishing more sophisticated ways of thinking. Accommodation and assimilation create a positive growth cycle.

Piaget's theory identifies four stages of cognitive development: sensorimotor, preoperational, concrete operations, and formal operations. The sensorimotor stage and the preoperational stage are relevant to *The Creative Curriculum*. The concrete and formal operations stages typically apply to older children.



Babies learn by reacting to what they experience through their senses.

Sensorimotor. In the sensorimotor stage, which begins at birth and lasts until about age 2, babies learn by reacting to what they experience through their senses. They put a book in their mouth, kick a mobile with their feet, and pull at the string on a wheeled toy to discover what these objects can do. Eventually they learn that the book has a cover and pages, that kicking the mobile will cause it to spin, and that pulling on a string toy will bring it to them. They learn that mother from the back and mother from the front are the same mother, and that when a ball rolls under a chair and is out of view, it still exists.

Preoperational. At about age 2, children enter a stage that Piaget calls the preoperational period. During this stage, which lasts throughout the preschool years, children begin to notice properties in the objects they explore. However, their observations are limited to only one attribute of an object at a time. They focus on how things look rather than on using logic.

Children begin to notice properties in the objects they explore.

Returning to the clay example above, the child does not use logic to determine the amount of clay in each lump. He goes by what he sees and does not consider that making a pancake does not involve adding more clay. Rather, he responds to the increased surface of the pancake-shaped lump of clay, and concludes that an object that takes up more space on the table is greater in quantity than an object that is more compact. His learning task is to focus on two attributes, length and thickness, at the same time, and to keep in mind the original equality in the two lumps of clay before one was manipulated to change its shape.

In addition to their concreteness, preoperational children tend to see the world from their own point of view. They believe everyone thinks and feels as they do. Piaget calls this quality egocentrism. "Jonelle's not here today. She must be at her grandmother's house." When asked how she knows, the child responded, "I just went to see my Granny." Children even attribute their own feelings to objects: "The tire in our car went flat because it got sick." Here the child is not yet able to do what Piaget calls decentering—understanding perspectives different from his or her own.

Recent research has shown that Piaget's stages are more fluid and more tied to specific content knowledge than he had suggested originally. For instance, the same child who makes an error in logic based upon the changed appearance of a lump of clay might think logically and conclude that five pencils spread across a table and five pencils held close together by a rubber band are the same quantity. Nevertheless the sequential development of logic that Piaget identified still holds.

Although children go through the sequence at different rates, Piaget's descriptions of how children construct understanding are the foundation of the teaching techniques, selection of materials, and suggested activities in *The Creative Curriculum*.

Using what we have learned from Piaget, *The Creative Curriculum* structures the environment and activities based on children's cognitive development. By varying the complexity and levels of prompts, choices, comments, and questions for individual children, *Creative Curriculum* teachers invite children into a world of learning that they can manage. The Curriculum shows you how to help children

- create graphs showing the characteristics of objects according to their color, size, or type of closure
- look at objects and experiences from multiple perspectives
- arrange objects in order according to their length
- describe objects in terms of their features (e.g., cars are big and little, wide and narrow; papers are rough and smooth, light and heavy)

In *The Creative Curriculum*, teachers give children many opportunities to work with concrete objects and to discover the logic of how these objects behave. They process children's experiences and encourage them to interact with one another and to learn about each other's perspectives. Respecting that most preschoolers are in the preoperational stage of development, teachers give children the time they need to master the world of concrete things and situations, and they open the door to the wider world of abstract thinking.

Teachers give children many opportunities to work with concrete objects and to discover the logic of how these objects behave.

Vygotsky: Social Interaction and Learning

The work of Lev Vygotsky focuses on the social component in children's cognitive development. According to Vygotsky, children grow cognitively not only by acting on objects but also by interacting with adults and more knowledgeable peers. Teachers' verbal directions, physical assistance, and probing questioning help children improve skills and acquire knowledge. Peers who have advanced skills also can help other children grow and learn by modeling or providing verbal guidance.

According to Vygotsky, what children can do with the assistance of others gives a more accurate picture of their abilities than what they can do alone. Working with others gives children the chance to respond to someone else's examples, suggestions, comments, questions, and actions.

Vygotsky:
Children's cognitive
development has a social
component.

Vygotsky uses the term, Zone of Proximal Development (ZPD), to describe the range of a child's learning in a given situation. The lower limit of the Zone represents what a child can learn when working independently. The upper limit of the Zone represents what a child can learn by watching and talking to peers and teachers. With the support of others, the child organizes new information to fit with what he already knows. As a result, he can perform skills at a higher level than he could working on his own. This process of building knowledge and understandings is called scaffolding. A scaffold is a cognitive structure on which children climb from one ZPD to the next.

To facilitate scaffolding experiences, Vygotsky, like Piaget, believed that teachers need to become expert observers of children, understand their level of learning, and consider what next steps to take given children's individual needs. The teacher's most powerful tool in this process is asking questions and talking with children. This give-and-take fosters children's awareness of what they are doing, and it promotes their growth by opening new and different possibilities for approaching a task.

The Creative Curriculum is based on Vygotsky's theories that social interaction is key to children's learning. The *Creative Curriculum* classroom is a community—a place where learning takes place through positive relationships between and among children and adults. Children are taught the skills they need for making friends, solving social problems, and sharing. In this environment, each member is a learner and a teacher.

In the *Creative Curriculum*
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Furthermore, in the *Creative Curriculum* classroom, instruction is based on observing and documenting what children do and say—in Vygotsky's terms, determining their ZPD. With this information in hand, teachers can provide learning experiences that are challenging enough to move children to a higher level of learning, but not so challenging as to frustrate them. In this way, *Creative Curriculum* teachers facilitate the growth and development of all children in the class and create a classroom environment in which their own effectiveness can be affirmed.

Gardner: Multiple Intelligences

Howard Gardner pioneered the theory of multiple intelligences. His work has shown that thinking of intelligence only in terms of standard "IQ" (intelligence quotient) scores is not always useful because traditional IQ tests measure a narrow range of skills. For instance, the most commonly used IQ test, the Wechsler Intelligence Scale for Children, is limited to verbal, math, and perceptual skills. It will yield only a low score for children who are weak in these areas but who are gifted artistically or musically, or those who have exceptional social and emotional skills.

Gardner:
There are many different
kinds of intelligence.

Gardner began researching different kinds of intelligences in the early 1970s. Realizing that the arts, in particular, had been neglected in our traditional concept of intelligence, he redefined intelligence as “the capacity to solve problems or to fashion products that are valued in one or more cultural settings” (Brualdi, 2000, p. 1). Gardner suggests that rather than having one fixed intelligence, people can be intelligent in many different ways. He has identified at least eight such ways. Below are the characteristics of each of the eight intelligences that Gardner has named. As you read them, keep in mind that children who show evidence of intelligence in a particular area are likely to show some (but not necessarily all) of these associated characteristics.

Linguistic/ Verbal Intelligence. Children who are strong in this area may like to play with words and the sounds of language; are good at telling stories; love looking at and hearing books read; and experiment with writing.

Logical/Mathematical Intelligence. Children who show talent in this area may like to reason and solve problems; explore patterns and categorize objects; ask questions and experiment; and count and understand one-to-one correspondence.

Musical/Rhythmic Intelligence. Children with this intelligence may sing, hum, or whistle to themselves; see patterns in music and nature; be sensitive to environmental sounds and the human voice; and respond to music emotionally.

Spatial/ Visual Intelligence. Children who are strong in this area may think in images; know where everything in the classroom is located; be fascinated with the way things work; and take toys apart to see how they work.

Bodily/Kinesthetic Intelligence. Children with talent in this area may have good fine motor skills and coordination; learn by moving, not by sitting still; feel things in their “gut”; be athletic or good dancers; and physically mimic others.

Interpersonal Intelligence. Children who are strong in this area may have several best friends; be good at resolving conflicts; be leaders and group organizers; and “read” other peoples’ feelings and behavior accurately.

Intrapersonal Intelligence. Children with this intelligence may be aware of their emotions; express their feelings well; require private space and time; and have realistic knowledge of their own strengths and challenges.

In constructive play, children's actions are purposeful and directed toward a goal.

Constructive play. Constructive play also involves handling materials, but with an important new dimension. In constructive play, children learn the different uses of play materials. They start putting things together based on a plan, becoming a creator and organizing their materials and sustaining their attention for longer periods of time than in functional play. At this stage children's actions are purposeful and directed toward a goal. They make constructions, such as roads or houses, and delight in seeing that what they have made will last even when they are finished playing.

The Creative Curriculum shows teachers how to validate and reinforce children's constructive play, to prompt children to extend their ideas, and to interact with children so that they learn from their play.

Dramatic or pretend play. Dramatic or pretend play can develop alongside functional and constructive play and is often seen in toddlers. When one child pretends alone, his behavior is referred to as dramatic play; when two or more children are involved in a sustained make-believe play episode, their activity is called sociodramatic play. The major difference between dramatic play and other types of play is that it is "person-oriented and not material and/or object oriented" (Smilansky & Shefatya 1990, p. 3).

In dramatic play children typically take on a role, pretend to be someone else, and use real or pretend objects to play out the role.

In dramatic play children typically take on a role, pretend to be someone else, and use real or pretend objects to play out the role. Children often re-enact something they have experienced or watched, a cognitive task that requires them to remember what happened, select the aspects that are relevant, and use gestures and words that clearly demonstrate the role they are playing.

Sociodramatic play is often guided by rules children have learned through their own experiences and requires children to adapt to their peers. For example, if a child is pretending to iron and her playmates say that little children aren't allowed to handle irons, the child may have to modify her role and become a grown-up in the play scenario. Sociodramatic play is a high-level cognitive and social task, requiring feats of imagination, reasoning, and negotiations with other children.

According to Smilansky and her associate, Leah Shefatya, studies have shown a connection between high levels of sociodramatic play in preschool and cognitive, verbal, and social ability measures in the early elementary grades (1990). With these findings in mind, we have placed a high priority in *The Creative Curriculum* on promoting this kind of play. The Curriculum shows teachers how to create an environment for frequent and varied sociodramatic play. In addition, the Curriculum shows teachers how to interact with children to expand and learn from their sociodramatic play.

Games with rules require children to control their behavior, both physically and verbally in order to conform to a set of rules.

Games with rules. Games with rules—like sociodramatic play—involve planning. There are two broad types of games with rules—table games and physical or movement games. Both require children to control their behavior, both physically and verbally, to conform to a structure of preset rules. While Smilansky acknowledges the appropriateness and value of games with rules, she does suggest that, unlike sociodramatic play, they are usually very specific and allow for little flexibility. Thus, children may learn to control their behavior by playing games with rules, but they don't engage in complex thinking or interaction.

Based on Smilansky's thinking, *The Creative Curriculum* suggests outdoor games with rules, such as "Red Light, Green Light" that involve physical activity. Some board or card games are also recommended. In addition, *Creative Curriculum* teachers encourage children to make up their own rules for games. They focus attention on playing for enjoyment rather than on winning or losing and on cooperative or collaborative games in which children play with each other rather than against each other. In all play—whether it is functional, constructive, dramatic, or rule governed—the *Creative Curriculum* teacher watches for opportunities to help children learn, expand their world, and master challenges.

Learning and Resiliency

Resilience research:
The negative effects of hardship can be alleviated and children can develop the strength and skills necessary to deal with adversity.

Resilience research, which began in the 1970s, has focused on children who develop well despite the burden of hardship. Perhaps the most significant result of this work has been to reverse the impression that children growing up under the threat of disadvantage and hardship are doomed to a life of problems. To the contrary, resilience research has shown that the negative effects of hardship can be alleviated and that children can develop the strength and skills necessary to deal with adversity (Wolin, in press). As one observer has put it, "Risk is not destiny" (Shore, 1997, p. 61).

In addition to creating a more optimistic picture of children of hardship than was painted in the past, resilience research has begun to shed light on the kind of help children threatened by harmful conditions need to thrive. Not surprising, the research consistently notes the importance of teachers (Wolin, in press). For instance, Emmy Werner (1999), who has been studying the development of resilience for over 40 years, has this to say:

One of the wonderful things we see now in adulthood is that . . . children really remember one or two teachers who made the difference. [Each]. . . was a person who looked beyond [children's] outward experience, their behavior, and their oftentimes unkempt appearance, and saw the promise. (p. 17)

Anne Masten (2001), in her review of current research on resiliency entitled “Ordinary Magic,” concludes that resilience is not a rare quality; all children can be reached by adults who protect their normal development. To date the literature has shown that children develop resilience when they

- spend time in a safe, supportive, and stimulating environment
- have access to caring, supportive adults who believe in them
- have opportunities to develop self-control
- can get a sense of their own competence
- are exposed to teaching strategies that help them become successful learners

These findings are behind the core belief in *The Creative Curriculum*—all children can learn and benefit from developmentally appropriate practice. They also shape the suggestions the Curriculum makes to teachers. We do not ask you to add another duty to your already demanding job. Nor do we tell you to fit resiliency time into the daily schedule or design special resiliency activities. Rather, *The Creative Curriculum* fosters resilience by showing you how to structure your classroom and to have positive, respectful interactions with children. The techniques the Curriculum describes will enable you to make a difference even if you can’t change the unfortunate circumstances that children are sometimes dealt (Bickart and Wolin, 1997).

The Creative Curriculum shows you how to structure your classroom and to have positive respectful interactions with children.

Many children come to preschool eager to learn. They are well cared for at home and do not raise complicated questions about your role. Unfortunately, every year in the classroom, teachers see children who fill them with concern and make them feel helpless. Their basic needs have not been met. They haven’t been given the emotional support required for learning, the kind of stimulation needed for their brains to develop, or the opportunities to interact socially. They’ve lacked play materials that promote logical thinking, imagination, and multiple intelligences. Working with children like these can be intensely challenging, and we do not want to minimize the difficulties. You cannot undo their hurt or reverse the situations that have deprived or harmed them, but, you can make a difference. *The Creative Curriculum*, which is based on the research and theory described in these pages, will show you how.