Gesell’s Guides for Parents and Teachers

Look for these other concise guides published by Gesell Institute:

**Ready or Not: Is My Child Ready for Kindergarten?**

All children are ready to learn, but what is your child ready to learn from a developmentally appropriate perspective? Perhaps more importantly, is the school ready for your child? What exactly is school readiness, and how do you know if your child is ready? These are just a sample of the essential questions answered in our Ready or Not booklet.

**Understanding the Relationship Between Families and Schools**

This guide explains the importance of a child’s overall development in relation to the learning process, the important relationship between home and school, and how all of this can lead to a successful school experience. Also included is an overview on how to determine a quality early childhood program and developmentally appropriate Kindergarten classroom, as well as the role of assessment in understanding the child.
Pretend Play and Brain Growth: The Link to Learning and Academic Success
Chapter 1: Introduction

“Play is the highest expression of human development in childhood, for it alone is the free expression of what is in a child’s soul.” –Frederick Froebel, 1926, Father of Kindergarten

Research in the field of early childhood education has recently produced extraordinary findings. It has confirmed many intuitions about early childhood that we have always had. For example, parents reading aloud to children during the day, the bedtime story, and story time at preschool or the library are activities that have been assumed to be good for children. Now, however, research has confirmed that one of most important things that parents can do to help their children become ready for kindergarten and to learn how to read is, indeed, to read aloud to children.1

Pretend or make-belief play is a universal aspect of childhood, one which most parents would also agree is beneficial for children. Four-year-olds enjoy pretending to go shopping or cooking in the kitchen. They carefully dress the baby dolls, get their poc\textsuperscript{3}kets out of a stroller, push the stroller to the “store,” purchase a chicken for dinner, and then stroll home and begin cooking. This lasts for five to ten minutes with much interaction between each of the players—even the dog who can only say “woof-woof” joins in the pretend play.

Five-year-olds enjoy reenacting elaborate interactions they have experienced in their own environments. A young boy, whose family had just relocated to a new home, played repeatedly the theme of finding and buying a new house. Even as young as 18 months, toddlers will approach an adult or another child and pretend to give them something in their hand. Most times the receiver pretends to eat it; this interaction delights the toddler and they will continue...
to distribute more and more invisible treats. Research now shows
pretend play is essential to learning and in particular the use
symbols in pretend play is the foundation for future reading.7,10
Another intuitive notion regarding early childhood education
suggests that children need to have mastered self-control in order
to be successful in school. A child must be able to stay seated
and quiet while the teacher is talking. A child must be able to line
up and walk throughout the school without running ahead of the
group or misbehaving. A child must wait his/her turn and learn that
everyone cannot be first at the same time or all the time. A child
must learn that there are winners and losers. A child must be able to
independently stay on task and complete the work assigned to him/ her without being distracted or begging for help. Self-control, recent
research has found, is part of a larger group of skills called executive
functioning (EF).4 This research confirms that executive functioning
is absolutely crucial for success in school and in later life.4,6,7
Perhaps the most interesting recent finding for early childhood
education lies in the area of brain research. With the help of the
brain MRI (magnetic resolution imagery), it has been determined
that pretend play helps develop the part of the brain that enables
a child to have executive functioning skills; which in turn leads
to learning.10 Children who have ample opportunities to practice
pretend play score higher on both reading and math exams.2
Pretend play and executive functioning are linked to a variety of
other outcomes including increased language, communication,
creativity, problem solving skills, and ability to delay gratification.
Additionally, executive functioning fosters the ability to take on
others’ perspectives, engage in critical thinking, make connections,
take on challenges, and become an engaged, self-directed learner.4
Pretend play is not just an activity children do to have fun, pass the
time, or learn about adulthood: as research now shows, it builds a
foundation for future learning.11

### Chapter 2: Definitions of Play

So, what exactly is play? Play defies definition and some
researchers even refuse to try to define it.12 Not all play is the same
nor has the same value. Some activities we call play are in fact not
play at all. Is the pro football player “playing” football or is it merely
his job? Is the concert pianist “playing” the piano? The word “play”
in and of itself is used in various situations.

Consider the following:

- Play ball
- Go play!
- Play records
- Broadway play
- Steering wheel play
- Symbolic/pretend play
- Construction play (building things)
- Physical play (running, jumping, etc.)
- Manipulative play (string beads, sorting, etc.)
- Down-play it
- Playing it up
- Play piano
- Play a character
- Play-offs
- Playing around
- Play the field
- Play it out
- Lights play
- Play the horses

With so many uses of the word of play, it is difficult to define what
childhood play is, why children play, and the importance of play in
the classroom. Types of play (and non-play) and what children are
learning will be explored in a later chapter.

The agreed upon characteristics that define true play are:

- Exists for no clear purpose
- Spontaneous
- Engaged in for pleasure
- Lack of organization
- Free of conflict
- Contains elements not found in the real world (symbols)
- Lasts for at least 10 minutes
- Includes language and interaction

### Table of Play Types

<table>
<thead>
<tr>
<th>Type of Play</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical play</td>
<td>Running, jumping, etc.</td>
</tr>
<tr>
<td>Manipulative play</td>
<td>String beads, sorting, etc.</td>
</tr>
<tr>
<td>Symbolic/pretend play</td>
<td>Construction (building things)</td>
</tr>
<tr>
<td>Broadway play</td>
<td>Theatre-like performances</td>
</tr>
<tr>
<td>Steering wheel play</td>
<td>Simulation of driving</td>
</tr>
<tr>
<td>Construction play (building things)</td>
<td>Building structures and objects</td>
</tr>
<tr>
<td>Physical play (running, jumping, etc.)</td>
<td>Physical activity in motion</td>
</tr>
<tr>
<td>Manipulative play (string beads, sorting, etc.)</td>
<td>Manipulative activity with strings and beads</td>
</tr>
<tr>
<td>Down-play it</td>
<td>Activity that deliberately emphasizes a negative aspect</td>
</tr>
<tr>
<td>Playing it up</td>
<td>Activity that deliberately emphasizes a positive aspect</td>
</tr>
<tr>
<td>Play piano</td>
<td>Activity that involves playing the piano</td>
</tr>
<tr>
<td>Play a character</td>
<td>Activity that involves playing a character</td>
</tr>
<tr>
<td>Play-offs</td>
<td>Activity that involves playing-off</td>
</tr>
<tr>
<td>Playing around</td>
<td>Activity that involves playing around</td>
</tr>
<tr>
<td>Play the field</td>
<td>Activity that involves playing the field</td>
</tr>
<tr>
<td>Play it out</td>
<td>Activity that involves playing it</td>
</tr>
<tr>
<td>Lights play</td>
<td>Activity that involves using lights</td>
</tr>
<tr>
<td>Play the horses</td>
<td>Activity that involves playing the horses</td>
</tr>
</tbody>
</table>
Chapter 3: Theories of Play

Our society has been studying childhood play for centuries. Plato and Aristotle mention play in their teachings and writings although they mainly viewed children as miniature adults and that games for children had to be carefully selected. Play of the 16th century is depicted in the famous Flemish painter’s, Pieter Bruegel the Elder, “Children's Games” in 1560. This summer townscape, void of adults, shows medieval children at play. Many of the amusements and recreations in the detailed illustration of over 200 children, engaged in nearly 80 different games and play activities, are still played today.

While some of the theories for play date back a few centuries, these are most the commonly proposed reasons and ways of children’s play.

- **Excess Energy**—play rids extra energy from the body
- **Relaxation or Replenish Energy**—play recharges energy and allows the escape of mental stress
- **Evolutionary Recapitulation**—since all species of animals play—kittens, puppies, lambs, dolphins—humans tend to repeat the play of ancestry and biological inheritance; the higher of both the order of animal and the level of civilization or refinement, the longer and more complex the play period
- **Instinct-Practice**—play to learn future adult roles; e.g., mommy, daddy, or teacher

Twentieth Century Theories of Play

- **Psychoanalytic**—pretend play to relieve the trauma of painful events or disturbing situations—spanking the baby doll, giving the baby doll a shot, pretending to be the mean sister
- **Cognitive Development**—play to learn cognitive concepts through the manipulation of blocks, puzzles, paints, clay, props
- **Functional Play**—play for the sheer joy of repetition; e.g., swinging, hopping, skipping
- **Construction Play**—play for a purpose; e.g., building a castle
- **Symbolic Play**—play involving a representation of an absent object; e.g., pretending your hand is the phone
- **Socio-dramatic Play**—pretend play that involves interactions with others and the use of props and symbols, most highly developed form of play; it is often imitative of real life situations

Twenty-first Century Theory

- **Neural Evolution**—play connects/wires the brain cells and makes sense of the world

While all theories of play have current merit, the neural evolution theory pulls the other theories together into one. The brain needs play, and especially pretend play, to form neurological connections which in turn make meaning of the world. Research shows animals that play more to have larger brains and increased success in mazes. Interestingly, these larger brains, with more connections and wiring, generate better survival skills. These animals know how to protect themselves which perpetuates the species.
Chapter 4: Types of Play

There are many types of play in a quality pre-K or Kindergarten classroom, even though all play is not of equal value. Children should mainly be learning through play-based experiential activities and by having extended periods of play throughout the day. Both the morning and afternoon should have a 30-45 period of play in the classroom, and an additional 30 minutes of outdoor play, too. The following chart is a brief overview of the skills children learn through different kinds of play in a typical classroom.

<table>
<thead>
<tr>
<th>Type of Play</th>
<th>Materials</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music play</td>
<td>Instruments both homemade and purchased</td>
<td>Rhythm, beat, tune</td>
</tr>
<tr>
<td>Group/game play</td>
<td>Duck, Duck, Goose Candy Land</td>
<td>Rules, one-to-one correspondence, taking turns</td>
</tr>
<tr>
<td>Dramatic play</td>
<td>Acting out a story</td>
<td>Recall, sequence of story, vocabulary</td>
</tr>
<tr>
<td>Pretend/socio-dramatic play</td>
<td>Spontaneously acting out a situation/event</td>
<td>Language, creativity, rules, roles, flexibility, self-control, perspective</td>
</tr>
</tbody>
</table>

The most important type and the highest level of play is intentional mature pretend play during the early years. During this type of play, the brain develops executive functioning skills that are essential to academic success and success in the adult years.
Chapter 5: The Neuroscience Behind Play

New brain research on the development of the prefrontal cortex of the brain, the primary home of executive functioning skills, is dominating discussions of early childhood practice. Stanislas Dehaene of the College de France in Paris calls this front and center portion of the brain a “neuronal workspace [whose] primary purpose is to assemble, confront, recombine, and synthesize knowledge [so that] our behavior is guided by a combination of information from past or present experience” (from Galinsky, 2010, p. 5). In other words, the prefrontal cortex impacts our ability to plan ahead, modify behavior, and socially interact in an appropriate manner. The growth of the prefrontal cortex occurs mainly in early childhood (birth to age 7 years) but continues steadily with age.

Two analogies help to explain the relationship between the brain’s prefrontal cortex, where executive functioning skills are mainly housed, and behaviors, actions, and outcomes. One analogy is to think literally about how an “executive” of a successful company/

Research conducted by *Tools of the Mind* authors Dr. Deborah Leong and Dr. Elena Bodrova (2012) on the development of executive functioning during pretend play is quite compelling. *Tools of the Mind* (TOM) curriculum is a play-based literacy program for pre-K and Kindergarten children. During the first half of the year, the curriculum is mainly focused on helping children learn to play and stay in their role for up to 45 minutes of pretend play. When compared to the control group who received traditional Kindergarten instruction all year, the TOM children scored
significantly higher on both language and math standardized testing. The TOM children also had significantly less behavior problems.

Ellen Galinsky, author of *Mind in the Making: The Seven Essential Life Skills Every Child Needs* (2010), proposes that children need more than good test scores to be successful. These skills are what we include in executive functioning skills:

1. Focus and self-control
2. Perspective taking
3. Communication
4. Making connections
5. Critical thinking
6. Taking on challenges
7. Self-directed, engaged learning

James Heckman, Nobel Laureate of Economics, would agree with Galinsky that these are the [executive functioning] skills possessed by successful adults in the workforce. “Content is not enough – employers say they can teach content – employers want [the above executive functioning skills].”

There are several contemporary authors offering up the same conclusions: *How Children Succeed: Grit, Curiosity, and the Hidden Power of Character* and *A Whole New Mind.* The New York Times, USA Today, Boston Globe and other news media regularly feature editorials about the importance of play and “the soft skills or characteristics” that are part of the executive functioning domain. Pink (2009) says, “The past few decades have belonged to a certain kind of person with a certain kind of mind—computer programmers who could crank code, lawyers who could craft contracts, MBAs who could crunch numbers. But the keys to the kingdom are changing hands. The future belongs to a very different kind of person with a very different kind of mind—creators and empathizers, pattern recognizers, and meaning makers. These people—artists, inventors, designers, storytellers, caregivers, consolers, big picture thinkers—will now reap society’s richest rewards.”

Even more convincing are the long-term benefits of pretend play and executive functioning skills on academic success. Research on reading comprehension in middle school students found that children who could read (decode) but not comprehend what they were reading lacked executive functioning development. When researchers reviewed brain MRI’s of these “non-comprehenders” in comparison to comprehensive reading brains, it was apparent that the prefrontal cortices of those who comprehended were significantly more developed.” Pretend play in pre-K and Kindergarten promotes reading comprehension in older children. This finding tells us that executive functioning is essential for putting together all the components of reading (alphabetic principle, syntax, and semantics) and making sense of the text.
Chapter 6: Executive Functioning Skills

Pretend play is crucial in helping the brain develop executive functioning skills which are essential to academic success and success in the adult years. Let’s explore exactly what are the executive functioning skills. Executive functioning consists of the following four skills:

- **Working Memory**: Ability to hold information and recall it when necessary
- **Cognitive Flexibility**: Ability to change and adjust mental effort
- **Inhibitory Control**: Ability to resist distractions
- **Self-Regulation/Self-Control**: Ability to inhibit a dominant response in favor of a less salient one, ability to delay gratification

**Working Memory**

The ability to maintain information in your brain without committing it to memory can be attributed to the working memory. Working memory, a subsection of the broader executive functioning, is a skill often taken for granted. Metacognition, our ability to reflect on our own thinking, exists because of the working memory. For example, working memory is repeating a phone number in your head in order to recall it.

Working memory predicts phonemic awareness, reading fluency, and letter recognition in children. This provides an important basis for learning, and directly relates to the findings regarding executive functioning and reading comprehension. Working memory also allows us to make decisions between two or more options in order to determine what the most logical response to a situation is. The ability to assume the perspective of others is another key factor of the working memory.

**Cognitive Flexibility**

Adjusting the level of mental focus needed based on the difficulty of a task exemplifies cognitive flexibility. For example, spending more time on a new math concept than on a set of vocabulary words that has already been committed to memory means children have chosen to set aside more focus on the foreign task than the familiar. In the same way, paying more attention to troubling details of a topic rather than an overview of simpler things leads to increased understanding of the subject.

The brain’s capacity to exert more effort on unfamiliar tasks and concepts is a key factor of executive functioning, as it allows us to filter through ordinary information in search of more in-depth information. The ability to allot increased levels of attention to more difficult tasks allows us to work more efficiently and timely, and meet deadlines consistently.

**Inhibitory Control**

Perhaps one of the most crucial skills under the umbrella of executive functioning is the ability to resist distractions. It could be argued that this capability is even more important than intelligence level. Even with a high level of intelligence, lacking the ability to prioritize and focus on one specific goal at a time significantly lowers the likelihood of success in completing a task. Inhibitory control is a skill that successful adults all have in common, and is developed through high levels of executive functioning.
Self-Regulation/Self-Control

A significant implication of high levels of executive functioning is self-regulation. This can be defined more simply as self-control, or the ability to suppress emotions, feelings, or wants in order to complete a task or follow instructions.

A classic study done in 1968 by Professor Walter Mischel, a groundbreaking psychologist in the field of self-control and willpower, enlisted the use of a simple test called the Marshmallow Test to determine how much self-control (or EF) a child may or may not have. In this test, a 3-6 year old child is brought into an examination room and given one marshmallow on a plate. The child is told that he/she can eat the one marshmallow now, or can wait and eat two marshmallows upon the researcher’s return (15 minutes later). Some children eat the marshmallow right away, some nibble at little pieces or lick the marshmallow, but some children can wait the full 15 minutes using a variety of strategies to deter them from eating. They may look the other way, hold their arms above their head, swing their feet while nodding their heads, or whine “please come back...”, but they do not eat the marshmallow until the researcher returns.

Those who can wait are exhibiting self-control and in turn strengthening their executive functioning skills. They can delay gratification – an essential skill in just about everything an adult does. It was also found by studying the same children over time that children with increased levels of executive functioning scored 210 points higher on the SAT than did those with less executive functioning.

* Note of caution: Do not use this test to practice self-control!

An additional aspect of self-regulation is emotion regulation. This is the ability to focus when attention is needed elsewhere – an especially important skill for student-teacher and student-peer relationships. High executive functioning correlates with high emotion regulation, in which we can momentarily suppress our emotions in order to accomplish a task.

Chapter 7: Lack of Self-Regulation and Learning Deficits

Consequences in Unregulated Children

A recent study measured levels of executive function in 1,037 children in New Zealand. By following the children up through their teenage years and adulthood, it was found that children who could better regulate their impulses and attention were four times less likely to have a criminal record, three times less likely to be addicted to drugs, and half as likely to become single parents. In many dimensions of successful, healthy living, the level of executive functioning was more predictive of adult outcomes than both IQ scores and socioeconomic status.

Additionally, unregulated children tend to experience higher levels of stress and anxiety because they lack the skills needed to cope with their emotions. This negatively affects friendship quality among peers, as well as feedback from peers. These children are therefore less likely to be chosen as schoolwork partners, tend to have less instructional time with teachers, and often exhibit anti-social behavior. Unregulated children often eventually drop out of school after experiencing academic problems, and express oppositional behavior with high levels of aggression.

Reports of school aggression and oppositional behavior have risen substantially over recent years; up to one-third of childcare classes are comprised of children with aggressive behavioral tendencies. American pre-schools expel one out of every 40 students each year as a result of these problems. Both phenomena are linked to a lack of executive functioning.
An evident link exists between Attention Deficit Hyperactivity Disorder (ADHD) and low levels of executive functioning. The influx of ADHD diagnoses (400% more children were prescribed medication in a five-year span) has researchers questioning whether the problem is indeed ADHD, or a misdiagnosed lack of executive functioning. Data suggests that perhaps levels of ADHD among children are not on the rise, but rather there is a decreased prevalence of self-regulation. Children come to school with less executive functioning now than ever before for a multitude of reasons. They don’t play or carefreely “run the neighborhood” as they did a generation ago. Some children spend too much time in overly academic preschools and childcare settings. Others watch too many screens. Children are commonly supervised in everything they do. Parents are too quick to stop a conflict or say no to risks, such as tree climbing. Today’s children are rarely allowed to just play. Sustained unstructured play is essential in a child’s development. Parents and teachers must make time for this to happen on a daily basis.

Chapter 8: Recent School Trends Regarding Play

“Learning is not child’s play; we cannot learn without pain.”
–Aristotle

or

“Play is the work of a child.”
–Piaget

Unfortunately, many people agree with Aristotle’s statement, viewing play as the opposite of work and learning. Dr. Sharon Lynn Kagan (2004, p. 59) proposed that many people see play as an “oxymoron to school readiness.” This belief has been disproved by research, which clarifies that children learn through play during early years.

Undeniably, young children under the age of eight learn very differently than older children. Young children need to explore their environment, use their senses, and interact with others to learn. They need to touch, manipulate objects, and learn by doing. They need to question, be curious, and try out their hypotheses. They need to see things and make sense of what they see. They need to use language skills and build vocabulary by interacting with adults and peers. Young children do not learn by memorizing and practicing rote drills on paper. Young children need to develop socially, emotionally, cognitively, and physically: every aspect of the child needs to flourish. This learning and development occurs during play and hands-on, experiential activities.

There is a popular belief that time at school should be reserved solely for learning, not for playing. Politicians and many school leaders lack knowledge of child development and the mechanisms by which children learn. They yearn for higher test scores and accountability, believing that the way to get there is through direct instruction. Accountability leads to increased testing, which eventually evolves into “teaching to the test.” This method of drilling remote facts does not constitute true learning; likewise there is no research to support the practice of drilling facts.
Another current trend is the “push-down curriculum.” High schools teach college AP courses, junior high teaches high school courses, and on and downward the curriculum is pushed. Many schools administer a first grade curriculum in Kindergarten classrooms and Kindergarten curriculum in PreK, in response to the irrational or the “sooner is better” phenomenon. By providing inappropriate content and instructional strategies to younger and younger children, the principles of child development are actually being violated at great harm to children.

“Somebody mentioned the medical dictum First, do no harm. We are doing harm in childcare and then we want to know why kids aren’t school ready.” Edward Zigler, LEAD Policy Panel Member, October 15, 2010.5

Chapter 9: Arnold Gesell/Importance of Child Development

Young children, birth to age eight, learn best through play. But – what does “play” look like? Is it all “play-time?” How much “play?” Parents and adults who work with children need to understand the basic principles of child development and learning in order to fully grasp the necessity of play for young children.

Dr. Arnold Gesell (1880-1961) was a ground-breaking researcher in the field of child development. He documented growth and development over time using cinematography, a new technology at the time. He took thousands of photos and movies, and kept copious notes as an observer of children. Dr. Gesell commented, “If we use effective tools, the child reveals himself to all who will stop and listen to what he says, and who, with seeing eyes, will watch what he does (1925).”

Gesell found that all children follow the same path of development; however, some children develop faster and some slower, all experiencing spurts and set-backs along the way. An example of this is the age at which children learn to walk. Some children learn as early as nine months, some as late as 15 months, but this is all considered normal. We agree that the early walker is not a better walker than the later one. A similar example is the age at which children learn to read; some children learn to read at age 3 or 4, others not until age 7 or later. This range is quite normal. As a Chinese proverb says, “Not all apples on a tree ripen at the same time.”

The most compelling findings from research on reading tell us that reading earlier is not an indicator of higher intelligence. By the end of the third grade, early readers have no advantage over later readers, and children at the top of their class in Kindergarten only have a 40% chance of being at the top of their class at the end of third grade. It is not uncommon for later readers to rise to the top of their class over time.
Gesell Institute of Child Development, after recently completing a nationwide study of 3-6 year olds, has found that children are not developing faster today. In fact, children are reaching the major developmental milestones at about the same time as they did when Dr. Gesell first began collecting data over 100 years ago. The Gesell message to educators is that each child has his/her own pace on the path of development which must be respected. Earlier is not better, nor possible!

A developmental screening or assessment such as the Gesell Developmental Observation – Revised can be used to observe a child's behavior and performance in order to identify where he or she is functioning along the continuous progression of human growth and development. Some, and not necessarily all, of any one child's behavior may be ahead of, equal to, or behind that which is characteristic for his or her chronological age.

Chapter 10: Promoting Play at Home and in the Classroom

Each classroom of children, with its wide variation of both chronological age and developmental needs, presents a challenge to the PreK to Grade 3 teacher. Consider the states that have a late cut-off date for Kindergarten entrance; e.g., December or January 1 as it is in CT. Some children, perhaps as many as 25%, enter Kindergarten at age 4 in September. According to the National Center for Education Statistics, as many as 30% of children who are “red-shirted” by parents, wait until the following year to enter Kindergarten. It is not uncommon for a teacher to have a classroom with a chronological age span of 4 years 8 months to 6 years 4 months on day one of Kindergarten. The 4-year-old has very different needs than the 6-year-old.

The best way to mitigate the developmental and chronological differences among children is to use a play-based curriculum. A play-based curriculum with open-ended, hands-on, experiential activities, as an instructional strategy levels the differences among children. Play allows each child to enter an activity at his/her own level, with the resulting outcome best suiting that individual child. An example of would be a “writing activity” which uses a variety of markers and medium for the child to tell a story about his/her family. The child who is already a reader and writer will use complete sentences and near correct spelling and punctuation. Another child might use a combination of “invented spelling” and pictures to tell the story. The child who is not at either of those levels might express him/herself entirely through pictures. All are acceptable outcomes based on the developmental needs of that child.

Look back at the list of play activities in the classroom for more examples of to incorporate play at home and in the classroom. See pages 8-9.
The constructionist learning theory supports the belief that children learn through play. As a simplistic way to explain what happens in the learning and neurological process, picture the notion that new knowledge is built much like a brick wall is built. The bricks are brain cells that must be connected. First there is a foundation to which new knowledge (each brick, each neuron) must be attached. New knowledge is actually an extension or an accommodation of the old knowledge that grew. Consider a toddler just learning to speak and understand the world around him/her. The family has a dog, so the child learns that dogs are four-legged animals with tails. The first time the child sees a cat, he/she says “doggy.” The child’s knowledge must grow to accommodate the fact that there are two kinds of animals with four legs and a tail. Play and hands-on experiences with pets allows the child to begin where he/she is on the developmental path, and then add on or increase knowledge.

The Benefits of Pretend or Socio-dramatic Play

Numerous researchers have defined pretend or socio-dramatic play as the most beneficial play for children. It has the strongest link to executive functioning development, as it develops the flexibility of thinking and self-control required to assume the role of another character and interact with others. As young children build play scripts with other children, they begin to negotiate, share ideas, and create a plan for play. This results in high levels of executive functioning and more competencies in the formation of interpersonal relationships. This mature make-believe play emerges in children around ages 4-5 years, and involves roles with rules, deep engagement, symbolic props, advanced planning, changing scenarios, and voluntary self-regulation.

Kindergarten and first grade are ideal grades to incorporate pretend play via dramatization with character/plot identification, story recall, emotional exploration, plots, characters, visualization, and prediction—especially for those children who lack executive functioning skills. Implementing this adult-encouraged play for at least 30-40 minutes in the home and in the classroom daily is an ideal way to foster development of executive functioning. Nothing is more important than equipping children with the skills that will enable them to be successful through their academic career and adulthood and contributing citizenry. It takes little effort to set aside time for your children to play, and in particular pretend!

Recommended Reading


*G. Stanley Hall was Arnold Gesell's teacher at Clark University


About Gesell Institute

Gesell Institute of Child Development is a New Haven based non-profit associated with understanding how children grow and learn since 1950. Gesell programs and publications help parents and educators understand the ages and stages of childhood. Understanding the stages of child growth and development and using this knowledge to interpret behaviors, to plan appropriate curricula, and to manage the classroom are essential to quality teaching practices.

Our mission is based not only on the work of Dr. Arnold Gesell, but also on current research and practice, broadening the Gesell philosophy of the past and bringing the work of the Institute into the 21st century. Today's Gesell Institute does not want to be known for the "wait a year philosophy" or merely as the proponent of a "Kindergarten readiness screener." Our new message revolves around our continued philosophy, focused on promoting the principles of child development for all decision-making for young children.

Gesell Institute provides multiple sources of information for parents, teachers, and schools to assist them in making important decisions about children. We do not set policy or provide recommendations surrounding issues of retention, placement, or readiness "scores" in association with the Gesell Developmental Observation–Revised. We believe that parents have the right and responsibility to make informed decisions about the best available school placement for their children, and should always be given the opportunity to do so.

For more information, visit us on the web at www.gesellinstitute.org.
Gesell’s Guides for Parents and Teachers

Look for these other concise guides published by Gesell Institute:

Ready or Not: Is My Child Ready for Kindergarten?
All children are ready to learn, but what is your child ready to learn from a developmentally appropriate perspective? Perhaps more importantly, is the school ready for your child? What exactly is school readiness, and how do you know if your child is ready? These are just a sample of the essential questions answered in our Ready or Not booklet.

Understanding the Relationship Between Families and Schools
This guide explains the importance of a child’s overall development in relation to the learning process, the important relationship between home and school, and how all of this can lead to a successful school experience. Also included is an overview on how to determine a quality early childhood program and developmentally appropriate Kindergarten classroom, as well as the role of assessment in understanding the child.