

RESEARCH SHOWS

The Benefits of High-quality Early Learning



The early years provide a window of opportunity to shape a child's brain during the most rapid period of development. Study after study proves that smart investments made in the early years can lead to profoundly better outcomes for our children, families, and economy. Early interventions for disadvantaged children are more economically efficient and produce higher returns than remedial programs, according to Nobel Laureate economist James Heckman. High-quality early childhood education can offer one of the highest returns of any public investment—\$8.60 for every dollar spent. These savings come in the form of fewer students being held back or getting involved in crime, and more graduating from high school and college and earning higher salaries in their careers.

LEARNING BEGINS AT BIRTH

In early childhood, children develop the linguistic, cognitive, social, and emotional building blocks for future development. In the first three years of a child's life, more than 700 neural connections are created each second. Differences in development start early as well—by age 2, low-income children are already six months behind their higher income peers in language development and by age 5 are more than two years behind.

By investing in our infants and toddlers, we can support their healthy development.

- Voluntary home visits offer modeling and coaching, connect first-time expecting and new families to services, and increase children's cognitive, behavioral, social, emotional, health, and safety outcomes. Through one of the home visiting programs, Nurse-Family Partnership, California has saved nearly \$40,000 per family through a 56% reduction in risk of infant deaths, 43% reduction in crimes and arrests, and 29% reduction in child maltreatment through age 15.
- Infants and toddlers in Early Head Start score higher on cognitive, reading and math tests, have larger vocabularies and more positive interactions with their parents, who provide more learning support.
- Low-income children from birth through age 5 in North Carolina's Abecedarian Project were better prepared for school, attaining higher cognitive test scores from the toddler years to age 21 and higher reading and math achievement test scores from the primary grades through young adulthood.

READY FOR KINDERGARTEN AND BEYOND

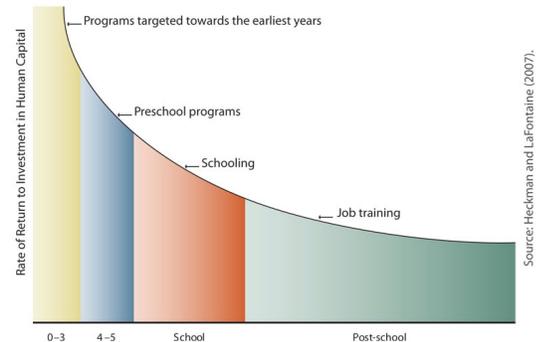
More than a hundred studies in the U.S. alone have shown that quality preschool significantly benefits children's school readiness and success. Without access to high-quality school readiness programs, low-income children and dual language learners often start behind and stay behind.

LONGITUDINAL STUDY: PERRY PRESCHOOL PROJECT

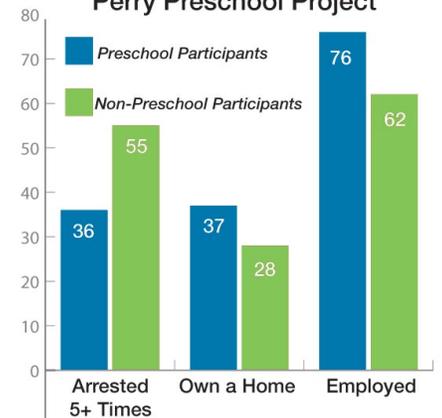
The benefits of high-quality preschool continue into adulthood, according to the High/Scope Perry Preschool Study, which has followed participants in a high-quality program for more than 40 years. Compared to a control group who did not attend preschool, Perry participants were:

- less likely to be arrested more than five times;
- more likely to hold a college degree;
- more likely to own a home; and more likely to be employed.

Returns to a Unit Dollar Invested



Adult Outcomes from the Perry Preschool Project



Source: High/Scope Perry Preschool Project Through Age 40 (2004)



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LONGITUDINAL STUDY: CHICAGO CHILD-PARENT CENTERS

Children who attend high-quality preschool do significantly better in K-12 and beyond than children who do not, according to a 28-year study of more than 1,400 low-income African American children who attended Chicago Public School's large-scale preschool program. Preschool participants:

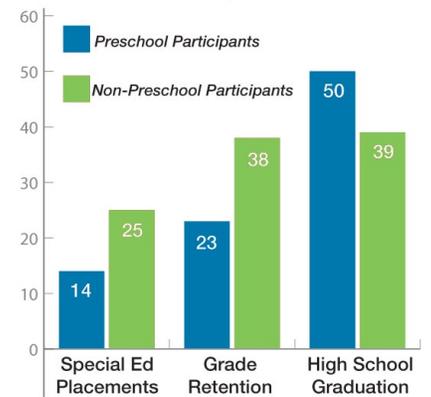
- scored better on reading and math achievement tests;
- were less likely to be placed in special education;
- were less likely to be held back a grade; and
- were more likely to graduate from high school.

EARLY CHILDHOOD EDUCATION INITIATIVES IN NORTH CAROLINA

Examining two North Carolina early childhood initiatives, a study found:

- Participation in a high-quality early childhood program reduces the likelihood of being placed in special education by the end of 3rd grade by 39%.
- Researchers also found a "spillover" effect benefitting other children.

Chicago Child-Parent Center
Preschool Participants Fare Better



Source: Long-term Effects of an Early Childhood Intervention on Educational Achievement and Juvenile Arrest (2001)

STUDIES OF SUCCESS

In cities and states across the nation, early childhood education programs are preparing children for success.

IN CALIFORNIA

- **San Mateo:** Low-income students who attended San Mateo County's Preschool for All program for two years outperformed more well-off children who did not attend. By 2nd grade, 74% of those attending the program for two years were proficient in reading, compared to 55% of those who did not attend, and 62% who attended were proficient in math, compared to 50%.
- **West Sacramento:** Universal Preschool for West Sacramento (UP4WS) increases parent engagement and classroom quality and has resulted in significant gains in school readiness for participating students, particularly for dual language learners. Participating children, who are more likely to live in poverty and have limited English proficiency, are just as ready for kindergarten as their peers.
- **San Francisco:** Children in the Preschool for All program showed 3 month gains in early literacy, 3-4 month gains in early mathematics, and the most dramatic gains in self-regulation skills.
- **Fresno:** Children who went to preschool were more than twice as likely to be "Ready to Go" for school.

IN OTHER STATES

- **Michigan:** Children in Michigan's Great Start Readiness Program were more likely to demonstrate proficiency in math and reading on statewide assessment tests than those who did not attend. Participants, particularly children of color, were more likely to graduate high school on time.
- **New Jersey:** Students in New Jersey's Abbott preschool program were three-fourths of a year ahead of their peers in math, and two-thirds of a year ahead in literacy by 5th grade. Participation reduced the likelihood of in-grade retention by 40% and reduced the necessity of special education placement by 31%.
- **Denver:** Children in Denver Public Preschool were more likely to reach advanced or proficient levels on the state's 3rd grade assessment than those who did not attend, and less likely to score at unsatisfactory levels. English Language Learners were also more likely to attain proficient or advanced levels on the 3rd grade assessment.

These studies represent just a sampling of the research that demonstrates that investments in early learning reap significant benefits for children, schools, and the state of California. For citations, please visit www.earlyedgecalifornia.org/research.



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Number 369



What are Learning Styles?

How do I determine my child's learning style?

by Becky L. Spivey, M.Ed.

Learning is taking in, understanding, and remembering information in order to apply it in other areas. Students usually learn information in one of three ways: seeing (visually), hearing (auditorily), and experiencing or hands on (kinesthetically). For most students, one of these three processes stands out above the others. Simply stated, some students remember best the things they have seen, some remember best the things they have heard, and others remember best the things they have experienced.

Everybody has a preferred style of learning. Knowing and understanding our learning style helps us to learn more effectively. This is particularly true for LD/AD(H)D students because of their different ways of learning. Through identifying your child's learning style, he or she will be able to capitalize on his or her strengths and improve his or her self-advocacy skills.

Visual learners need to see the teacher's body language and facial expression to fully understand the content of a lesson. They tend to prefer sitting at the front of the classroom to avoid visual obstructions (e.g., people's heads). They may think in pictures and learn best from visual displays including: diagrams, illustrated text books, overhead transparencies, videos, flipcharts, and hand-outs. During a lecture or classroom discussion, visual learners often prefer to take detailed notes to absorb the information.

Visual learners can benefit from...

- Drawing maps or flowcharts of events or scientific processes.
- Making outlines of everything.
- Copying what is on the board.
- Diagramming sentences.
- Taking notes.
- Watching instructional videos.
- Color-coding, circling, underlining, or highlighting words and phrases.
- Outlining reading assignments.
- Using flash cards.

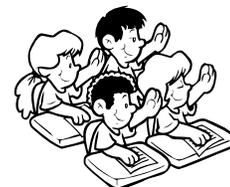


The best test types for visual learners include diagramming, reading maps, outlining to show a process, and writing an essay after studying an outline. The worst test type for visual learners is a listen and respond test.

Auditory learners learn best through verbal lectures, discussions, talking things through and listening to what others have to say. Auditory learners interpret the underlying meanings of speech through listening to tone of voice, pitch, speed, and other nuances. Written information may have little meaning until the learner hears it. These learners often benefit from reading text aloud and using a tape recorder.

An auditory learner can benefit from...

- Using word association to remember facts and information.
- Making audiotapes of notes after writing them.
- Recording lessons or lectures.



- Watching instructional videos.
- Repeating facts with his or her eyes closed.
- Participating in group or class discussions.
- Using audiotapes when practicing a foreign language or other material.

The best type of test for auditory learners is reading passages and writing answers about them, writing responses to lessons or lectures they have heard, or answering questions by oral examination even in a timed situation.

Kinesthetic/tactile learners learn best through a hands-on approach, actively exploring the physical world around them. They may find it hard to sit still for long periods and may become distracted by their need for activity and exploration.

Kinesthetic learners can benefit from...

- Studying in short blocks.
- Taking lab classes.
- Role playing.
- Taking field trips, visiting museums.
- Studying with others and using memory games.
- Using flash cards to memorize.
- Creating projects to explain lessons or events.



The worst test type for kinesthetic learners is long essay questions. The best type of test for kinesthetic learners would include short definition, fill-ins, and questions with multiple answer choices.

In today's classrooms, teachers are encouraged to create lessons that include these three learning styles in order to accommodate the variety of needs among the students in their classrooms. This, in itself, is a monumental task, especially in the early grades. Some research has found that students can perform better on tests if the teacher will address an individual's learning style, and if the students will change their study habits to fit their personal style. If you cannot identify your child's learning style using the traits of auditory, visual, or kinesthetic (tactile) learners cited above, you may want to consult your child's teacher or school counselor. Parents can also find short quizzes online that may help identify your child's learning style.

References

Flemming, Grace. Learning Styles. Know and use your personal learning style. Retrieved July, 2012.
<http://homeworktips.about.com/od/homeworkhelp/a/learningstyle.htm>

LDPrize.net. Learning styles explained. Retrieved July, 2012 from
<http://www.ldpride.net/learningstyles.MI.htm#Learning%20Styles%20Explained>

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Helpful Products

The list of Super Duper® products below may be helpful when working with children who have special needs. Visit www.superduperinc.com and type in the item name or number in our search engine. Click the links below to see the product descriptions.

Preschoolers Acquiring Language Skills (PALS) and (PALS-2)
 Item# TPX-18603

Webber® Hear It! Say It! Learn It!™
 Item# BKCD-407

Word Joggers
 Item# TPX-21401

Webber® Photo Lotto Games Combo
 Item# LOT-55

Category Cut-ups™
 Item# BK-335

Vocab-u-Themes
 Item# BK-274

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Number 358



What are Developmental Domains?

by Becky L. Spivey, M.Ed.

From the moment of birth, children begin exploring their new world by touching, smelling, tasting, listening, observing, and playing. Through this constant exploration, they are rapidly developing the “domains” of their physical and mental abilities. The simplest of activities at every age level promotes stimulation and growth in their cognitive, social, language, and physical (fine and gross motor) skills. These four domains develop all at the same time.



Cognitive Development is learning and processing of information – our thinking and knowing. Cognition involves language, imagination, thinking, reasoning, problem solving, and memory. Our cognitive skills help us organize what we know and generalize that knowledge into other areas. School teachers understand how children learn and process information; therefore, they can recognize a breakdown in cognition. When a red flag appears, teachers may refer a child for an evaluation to pinpoint the breakdown – and the sooner, the better. This child may have a learning disability or some other deficit that needs attention. Help your child develop cognitive skills from an early age by having him/her work with puzzles, blocks, peg games, card games, patterns, and cause and effect activities.

Language Development is learning to express ourselves in order to communicate with others. We learn to express ourselves by learning sounds, combining those sounds into meaningful words, and putting words together into sentences to communicate our thoughts. Then we are able to interpret sounds from others. Talking to our children before they can talk, engaging children in conversation (even when they are just beginning to talk), and exposing children to books and reading to them are instrumental in developing later literacy and language skills. Reading, talking, and singing to children from birth, and providing books and language videos or DVDs for them when they are older will help children develop important language skills.

Social Development is learning to like ourselves and to get along with others. Being in an active environment teaches us to share, take turns, accept the differences in others, include others in play/ conversation, and the list goes on. Just by watching others interact, children learn valuable social skills. That is why the examples we set and the behaviors we display are important. Children are always watching and copying what they see others do.

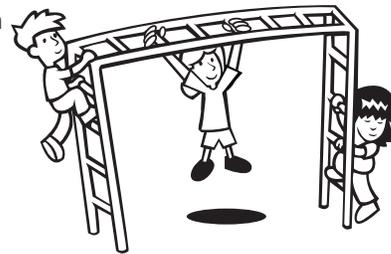
Unfortunately, some children may develop serious emotional or personality problems at some point. These problems include symptoms of extreme anxiety, withdrawal, and fearfulness; or, on the other hand, disobedience, aggression, and destruction of property. If parents suspect their child's social development is not going well (compared to his/her peers), discuss your observations with your family doctor or school counselor. From an early age, having your child interact with other children and adults as much as possible is the best way to help him/her develop socially. Playing games, having conversations in the car or at the dinner table, playing with friends, having parties, going out to eat, etc. are all invaluable ways to foster social development.

Physical Development falls into two categories – fine motor and gross motor skills. Fine Motor skills are activities occurring with the fingers in coordination with the eyes, such as reaching, grasping, releasing, and turning the wrist. These small muscle movements don't develop overnight, but with time and practice. Fine motor skills help us perform tasks for daily living, such as dressing, eating, toileting and washing. In the early childhood years, children become independent and learn to dress and undress themselves without assistance; use utensils for eating; and pour liquid without assistance.



The fingers learn to move in harmony and become strong enough to fasten buttons and snaps; and movement in the wrists helps take care of toileting.

Activities to promote fine motor control include: putting together puzzles with small pieces, peg board games, painting, drawing, cutting, stringing and lacing activities, construction and building sets like Legos®, Lincoln Logs®, buttons, snaps, and tying.



Gross Motor Development involves the larger muscles in the arms, legs, and torso. Gross motor activities include walking, running, throwing, lifting, kicking, etc. These skills relate to body awareness, reaction speed, balance, and strength. Gross motor development allows your child to move and control his/her body in different ways. It promotes your child's confidence and self-esteem and allows the body to perform multiple demands beyond simple muscle movements.

At home or in the classroom environment, have children practice: walking on their toes or heels; walking with toes pointed in or out; walking or moving like a certain animal (crab, worm, bear, bunny, frog, elephant, gorilla, kangaroo, etc.); playing kickball, tetherball, volleyball, basketball, or skating; swinging, sliding, climbing on monkey bars, or playing on a tire swing; balancing while walking along a curb; walking forward, backward, sideways, and heel-to-toe; walking while balancing a book on the head; jumping, hopping, crawling, rolling, doing jumping jacks, and jumping over obstacles. Participating in sports groups help develop gross motor skills as well as cognition, as many sports require thinking and planning where and what their body needs to do next.

Resources

Bright Tots. (2012). *Developmental domains*. Retrieved from <http://www.brighttots.com/domains>

Teach Preschool. (2012). *A brief look at developmental domains in early childhood education*. Retrieved from <http://www.teachpreschool.org/2010/07/a-brief-look-at-developmental-domains-in-early-childhood-education/>

Livestrong. The Limitless Potential of You (2012). *Five domains for early childhood development*. Retrieved from <http://www.livestrong.com/article/156820-five-domains-for-early-childhood-development/#ixzz1jLW65N1g>

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All About You, All About Me Fun Deck®
[Item # FD-80](#)

Topic Talk™
[Item # GB-192](#)

The Question Challenge Game
[Item # GB-42](#)

Fine Motor Fun Deck®
[Item # FD-105](#)

Body Awareness Fun Deck®
[Item # FD-120](#)

Upper Body and Core Strength Fun Deck®
[Item # FD-106](#)

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Learn the Signs. Act Early.

Learn the signs of your child's development and act early if you ever have a concern.

To complete a milestone checklist, **download CDC's FREE Milestone Tracker app** or visit **cdc.gov/Milestones**, and talk to your child's doctor at every well-child visit about the milestones your child has reached and what to expect next.

YOU KNOW YOUR CHILD BEST.

If your child is not meeting milestones or you are concerned about the way your child plays, learns, speaks, acts, or moves, talk with your child's doctor, share your concerns, and ask about developmental screening. Don't wait.

If you or the doctor is still concerned

1. Ask for a referral to a specialist and,
 2. Call for a free evaluation to find out if your child can get services to help:
- **If your child is under age 3:**
Call your state or territory's early intervention program. Learn more and find the phone number at **cdc.gov/FindEI**.
 - **If your child is age 3 or older:**
Call any local public elementary school.

For more on how to help your child, visit **cdc.gov/Concerned**.

DON'T WAIT.
Acting early can make a real difference!



For more information about your child's development and what to do if you have a concern, visit:

www.cdc.gov/ActEarly

OR CALL:

1-800-CDC-INFO (1-800-232-4636)

to request a **FREE Learn the Signs. Act Early. Parent Kit** or to get help finding resources in your area.



Centers for Disease
Control and Prevention
www.cdc.gov/ActEarly
1-800-CDC-INFO

Developmental milestones adapted from Caring for Your Baby and Young Child: Birth to Age 5 (AAP, 2009) and Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents (AAP, 2008).



Track Your Child's Developmental Milestones



Milestones Matter!

How your child plays, learns, speaks, acts, and moves offers important clues about his or her development.

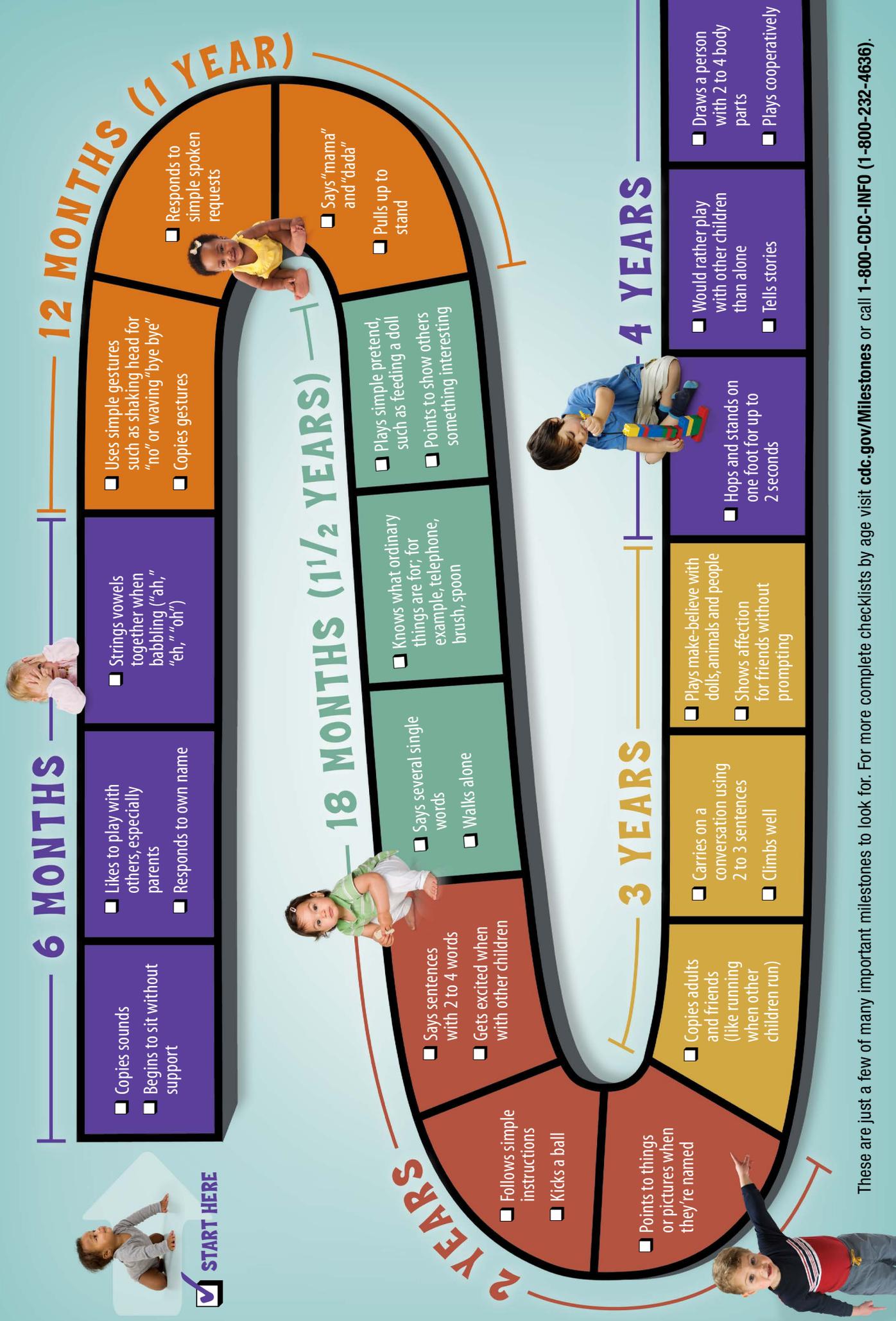


Download
CDC's Milestone
Tracker App

Learn the Signs. Act Early.

Your Child's Early Development is a Journey

Check off the milestones your child has reached and share your child's progress with the doctor at every well-child visit.



These are just a few of many important milestones to look for. For more complete checklists by age visit [cdc.gov/Milestones](https://www.cdc.gov/Milestones) or call 1-800-CDC-INFO (1-800-232-4636).