



Dear Parents,

Right from birth a baby is forging neural wiring for physical movement, social interactions, emotional control, language, and cognition (sometimes referred to as intelligence or thinking skills). Parents are often concerned about intelligence. They assume all the other areas of development will, more or less, take care of themselves. This is a bit of a misunderstanding. All of these areas are interwoven and all are equally dependent on experiences.

Understanding cause-and-effect relationships is the foundation of cognitive development (intelligence) but it will be developed through experiences that are social, linguistic, emotional, and physical. Here are some cause-and-effect scenarios that involve all areas of development:

- **Socially** your baby learns that if he smiles, you will smile back and if he cries, you will come to his aid.
- **Physically** he learns that if he pushes with one of his hands when on his tummy, he will be able to roll to his back.
- **Linguistically** he learns that language is "give and take." He coos and then he stops and waits for you to speak. When you finish speaking, he coos again.

Problem-solving skills are also a part of cognitive development. These skills begin to wire during the first year. Babies learn to push with one hand to turn over or to wiggle to reach a desired toy.

A child's intelligence is shaped and influenced by cumulative experiences over time. Your interactions to nurture your child's intellectual development will have a lasting impact.



What You Can Do

- Talk about patterns with your little one. Point out changes in seasons, visible differences in day and night, routines, rhyme and repetition in songs, and rhythm in music.
- Point out cause-and-effect events and situations. Cause and effect is a constant pattern in our lives.
- Encourage your child's natural abilities (music, art, dance, language, math). There are many ways to be "smart."
- Observe your child as she plays. Watch as she attempts to solve problems. Let her get as far as she can before jumping in to help. Your child needs to solve problems on her own. It is experience that wires the brain.
- Talk to your child. The more words we have, the better we understand the world around us.



Dear Parents,

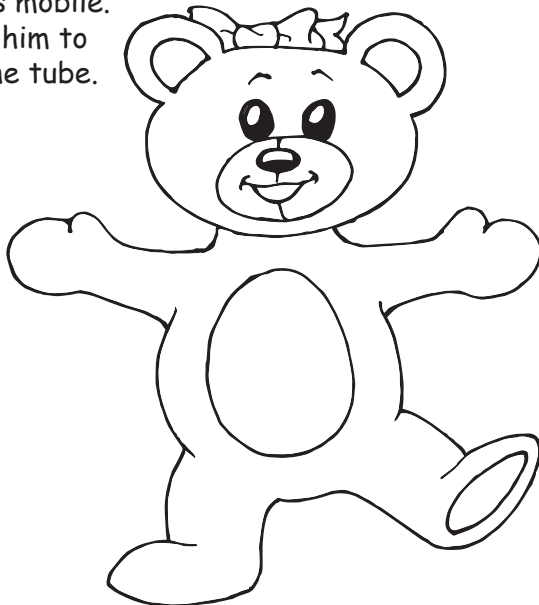
The foundation for motor development (large muscle control) is wired during the first two years of life. Babies move from having no control over their movements to having enough control, balance and coordination to walk. The brain wires this important circuitry through experience. Little ones need to be active. The more they move, the more agile, coordinated, and strong they become.

Limit the time little ones are restrained. Research indicates that children today spend more time restrained than they did in previous decades. Physical growth cannot develop when little ones are restrained.

What You Can Do

Non-Mobile Infants

- Provide open floor space. Any time your baby is not sleeping, she should be on the floor in a safe space. Floor space allows her to wiggle and move more freely.
- Exercise your infant's arms and legs during floor time. Help your baby roll from tummy to back and then back to tummy.
- Provide tummy time. Prop your baby on your tummy. Encourage him to lift his head by talking to him.
- Sit your baby in your lap and hold her hands. Encourage her to stand up.
- Suspend an empty paper towel tube from your baby's mobile. Encourage him to swing at the tube.



Mobile Infants

- Crawl with your baby. It makes it more fun!
- Cut the sides from medium-size boxes to create tunnels for your baby to crawl through. Place a blanket over a table to create another type of tunnel.
- Teach your little one simple exercises. Make it a routine to exercise together daily.
- Provide riding toys and push toys.
- Place a blanket on the grass outdoors and invite your child to roll back and forth across the blanket.
- Take your child to the park. Encourage him to swing (develops balance) and climb (develops muscles).
- Play movement games:

Musical Freeze: Play music and dance. When the music stops encourage your little one to hold a pose.

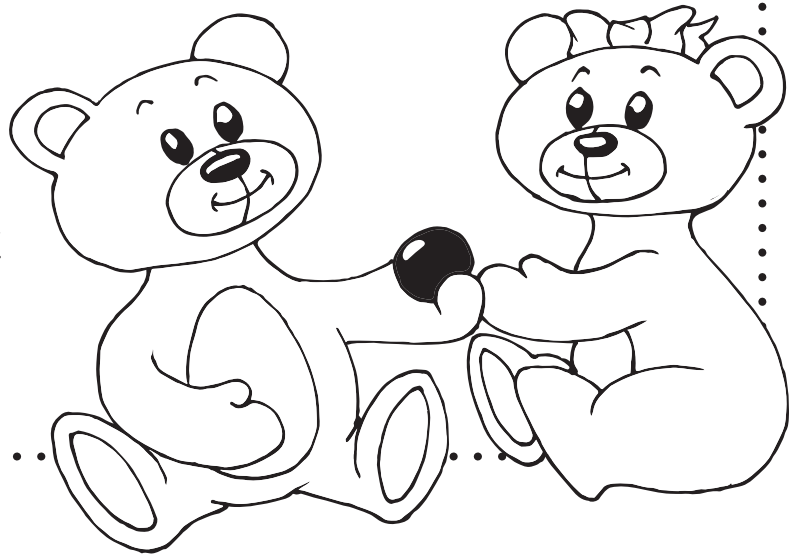
Cat and Mouse: You be the cat that chases a mouse (your child).

Animal Antics: Move like an elephant, a fish, a butterfly and other interesting animals.

Chasing Bubbles: Blow bubbles and invite your child to chase them.



- Dear Parents,
- Social intelligence, sometimes referred to as social development, is important for both survival and for living a fulfilling life. Social skills are necessary for relating to others, learning from others, and teaching others. You might think of these skills as "people skills." Our acceptance by others is largely based on our social intelligence (expressing our thoughts, showing concern for others, solving and preventing problems, cooperating). Social skills are vital to a child's success in school.
 - Social interactions and understanding begin to wire right from birth. During the first year of life, babies connect with the people who care for them (parents and outside-the-home caregivers). It is these connections that anchor a baby's developing social skills. This is called *attachment*. Providing a loving and supportive environment goes a long way in preparing a baby to interact socially. Social skills are optimally developed when intentionally taught.
 - Emotional intelligence and social intelligence are co-dependent. Emotional intelligence is the understanding of one's own emotions and the ability to manage these emotions effectively.
 - Social intelligence is the understanding of others' emotions (and feelings) and the ability to manage one's self in the context of others. Emotional intelligence builds the foundation for social intelligence. As we understand ourselves, we gain insight into understanding others.



What You Can Do

- Interact with your baby daily. Talk to him. Smile at him. Be expressive and acknowledge his expressions.
- When you play interactive games, alternate taking turns. For example, when playing Peek-a-Boo, cover your eyes a few times and then cover your baby's eyes a few times.
- Typically around 8 months, babies develop a fear of strangers. If your child expresses this type of fear, do not force him to go to a stranger.
- When other babies are around, position your baby so he can see his peers.
- When your baby begins to express his wants and desires through tantrums (between 15 and 18 months), set limits and hold to them. It is during this time that your child is learning an important rule of social living: You don't always get your way.
- Talk with older infants about the feelings of their friends. Teach them to touch others gently.



Dear Parents,

At around 8 months, babies understand about 80% of what we say to them. Understanding the meaning of words is called *receptive language*. When babies begin to speak words, they are using *expressive language*. The understanding of words signals the appropriate time to teach little ones sign language.

Sign language will provide a communication bridge between babies' understanding of language and their ability to speak. It will allow them to let others know when they want something or when they have had enough of something. It will help them communicate with their peers which in turn will help with squabbles that occur because of children's inability to let others know what they are trying to communicate.

Most languages are stored on one side of the brain. For example, English and Spanish are stored on the left side of the brain while many Asian languages are stored on the right side of the brain. But sign language is stored on both sides of the brain which is a big advantage for processing information.

What You Can Do

Teach your baby sign language beginning at 8 months. Be patient. Give her time to figure out that the hand movements you are using represent words. It generally takes several weeks for little ones to catch on. Always say the word when you make the sign. This is what allows the wiring for sign language to encompass both hemispheres.



mommy



daddy



more



eat



drink



all done



play



I want



Dear Parents,

Routines are what little ones use to tell time. They know that mommy picks them up after their afternoon nap. They know that bedtime follows bath time or story time. Routines help babies feel secure and in control.

When routines are broken, babies can become frustrated and irritable. They don't know what to expect. Their world has taken a turn and they don't know why. Things become chaotic. Think about how you feel when you forget to wear your watch, leave your cell phone at home, or have house guests changing up your normal routine. While as adults we have learned to compensate for the unexpected, little ones have not yet learned to do this. They need the comfort of the familiar and the consistency of patterns they know and understand.



What You Can Do

- Create routines right from the beginning. Without routines, your baby's world feels random and overwhelming.
- Pay attention to your baby's cues as you set routines. You will know when your baby is hungry because she will most likely move her mouth in a smacking movement or chew her hands. You will know when the best time is for play time because your baby will be fully alert. You will know when it is time to sleep because your baby will rub her eyes and have trouble maintaining eye contact.
- Maintain routines as much as possible but don't panic when routines get interrupted or broken on occasion.
- When the unexpected happens, understand that your baby may show concern. Try to build in as much consistency as possible. For example, if bedtime gets off schedule, try to keep other routines associated with it intact, such as reading a story or having a snack.
- Build routines around the important parts of your baby's day. For example, naptime may include a few moments of rocking before going into the crib or perhaps a few minutes of lullaby music. Potty time may include a book to look through and a big hug when successful. Saying good-bye at school might include a hug, a few words about your return and a wave goodbye. Each of the components of a routine will help your baby through the activity.
- When visiting away from home, make sure to take the components of your routines with you. When the surroundings are different, the activities can help maintain consistency.



Dear Parents,

Children between 14 and 18 months are at a developmental stage when they are testing limits. They have an opinion and are anxious to make it heard. It is important to set limits and make sure children stay within those limits. Children need to learn that "no" means no. Because the brain wires from experiences, it is critical that you set and hold boundaries during this time. If you are wishy-washy, your child will not have any sense of limits and without understanding limits, your child cannot develop self-control.

What You Can Do

- When you say "no," mean it even if you rethink your decision. Babies are too young to understand your rationale for changing a decision. They assume their tantrum has changed your mind and this reinforces the opposite of what you want (self-control).
- Discuss rules with all members of your family (spouse, grandparent, siblings) so that everyone will reinforce the same restrictions.
- Be consistent. For example, if food is not allowed in some areas of the home, make this a consistent rule in all cases, including a rule for other people in your home. Consistency over time helps children understand boundaries and, believe it or not, your child needs and wants boundaries.

Follow these simple steps when a tantrum occurs.

1. Put into simple words what you believe the problem is. Many tantrums escalate because children don't think we understand what they want.
2. Move on with your task. Let your child cry it out.
3. When your child is calm, briefly explain why she couldn't have her way.



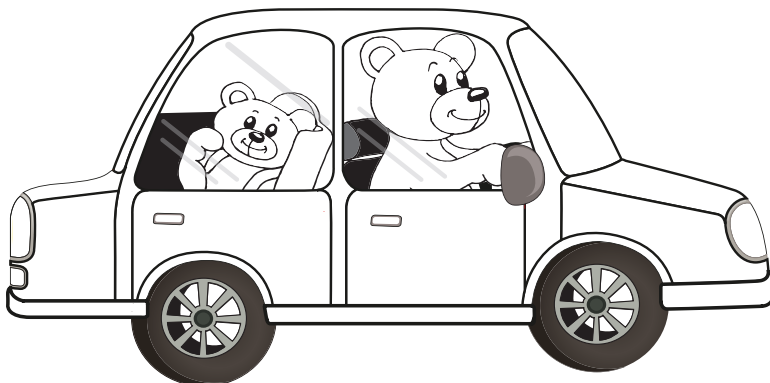


Keeping Peace in the Car

- Dear Parents,
- It is frustrating and disconcerting when little ones choose to cry in the car. It makes it extremely difficult to concentrate on driving. Little ones cry in the car for many different reasons. A few of these reasons might include not being able to see you, not liking being strapped into a seat, being hungry, and even in some cases being uncomfortable with the movement of the car. Some babies cry every time they are in the car. Try some of the suggestions below but do not give too much attention to this frustrating behavior. If crying persists over time, talk to your pediatrician.

What You Can Do

- Make sure your baby is comfortable. Ensure that car seat straps are safe but not too tight. Make sure clothing is not bunched up under your child.
- Ensure that air vents are not blowing directly on your baby.
- Swaddle your newborn (up to 3 months). This helps your baby feel secure.
- Talk and sing to your baby.
- Play a music CD. Use lullaby music if it is okay if your baby falls asleep. Otherwise use a CD that contains traditional songs like "Itsy Bitsy Spider" and "The Wheels on the Bus."
- Make a CD of you singing to play in the car.
- Provide toys for your baby.
- Provide snacks for older children. Make sure that snacks are safe and not a choking hazard.
- Copy photos of family members and encase them in clear self-adhesive paper or laminate them. Tape the photos in a place (side window, back of driver seat, back of back seat) that your baby can see them.
- Place a mirror where your baby can see himself.
- Some babies need to be calmed instead of entertained. Provide a stuffed animal that plays ocean wave sounds or has a heartbeat sound.



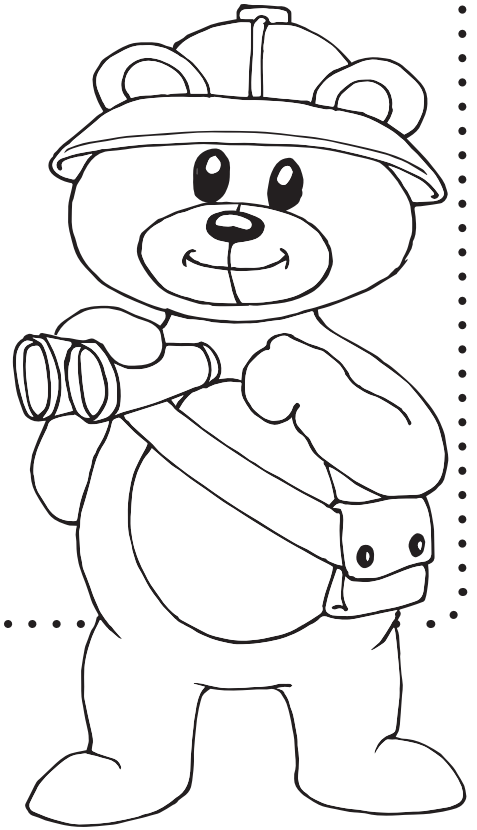
- If your car trip is longer than 20 minutes, avoid using a DVD to entertain your baby. The American Pediatric Association and The American Medical Association both recommend no use of two-dimensional imagery (computer screens, phone screens, television) with children beneath the age of two because it interferes with your baby's visual wiring.



Dear Parents,

Children are born curious and capable of generating solutions to problems. They have a reverence for everything and a profound drive to explore and discover. You have probably observed a young child, intent on reaching for a toy, try various strategies until she gets what she wants. It is this innate curiosity that drives exploration. Exploration is the heart of learning and the key to building a baby's cognitive (thinking) skills.

It is exploration (driven by curiosity) that uncovers the relationship between cause and effect, the joy of learning, the pride of accomplishment that accompanies creativity, and the self-confidence that blooms with solving problems. It is crucial to encourage a baby's natural curiosity. When it is stifled, babies will become dependent on adult approval and less likely to have enough confidence to explore alone. The critical steps involved in trial-and-error learning will begin to be extinguished.



What You Can Do

- Child proof your home so that you do not find yourself saying "no" to your baby as she explores.
- Allow your baby to explore when she is awake. The only time your baby belongs in her crib is for sleeping.
- Avoid keeping your baby confined to feeding tables, swings, walkers, and carriers. Little ones can't explore when they are confined.
- Offer your child interesting things that will encourage her to look (photos, bird's nest, tree bark, shells) and listen (musical toys, baby band instruments, squeak toys). Always make sure that items you provide are safe (large enough not to swallow or to break).
- Talk with your baby when you see her show interest in something.
- Take your baby on a nature walk or stroller ride often. Talk about the things you see. Direct your baby's attention to interesting things you see.
- Organized problem-solving strategies (experimentation with the goal of finding a solution) begin to wire when toddlers are around 18 months old. In preparation for this stage, offer your young infant activities that stimulate his natural ability to think critically and creatively. Model problem-solving strategies and discuss your thinking as you work through problems. It takes firsthand experience and a great deal of practice for this process to become second nature for a young child.



Dear Parents,

Oral communication is a two-way street that involves both listening and speaking. Listening is as important as speaking. In today's busy world, it is easy to give superficial attention to a child's questions and comments. If this becomes the norm, children may feel their thoughts are unimportant. This inhibits their self-confidence and self-esteem.

When you listen with interest to your child and respond constructively, it helps your child learn that his thoughts and comments are valid and respected. When you are "fully present" with your child, he feels he is the most important person in your world. This feeling helps build both self-esteem and communication skills.

Being "fully present" extends beyond communication. It also means spending quality, uninterrupted time with your child. Being with your child is not a time for multi-tasking.

What You Can Do

- Stop what you are doing and listen to your child when she speaks. This doesn't have to happen 100% of the time, but it does need to happen the majority of the time.
- When listening to your child, make eye contact and encourage your child to do the same.
- When you are busy, tell your child that you need a few minutes. Get back to him as soon as possible.



- Take time each day to spend quality time with your child. During this special time, ignore all other things that might take your attention away from your child (cell phone, other people, contemplating a to-do list). Try planning a specific time each day for this uninterrupted time with your child to ensure that it happens.
- Always make bedtime a time that you slow down. Putting your little one down for the night should be a special time. Create a routine. With a younger baby, that routine might be a feeding before going down for the night. For an older baby, it might be a bath followed by a story time.



Limit Interaction with Technology

- Dear Parents,
- A baby's vision is rapidly wiring during the first two years of life. Babies need to experience a colorful world of three-dimensional objects. This is why the American Academy of Pediatrics recommends no technology screens for children under two.
- Babies are born with rudimentary wiring for vision. They see objects that are 9-14 inches away from their face and they see them in only black, white, and shades of gray. They do not have depth perception. But dramatic changes happen in the first two years of life! A baby's vision distance will extend. Babies will begin to see colors and develop depth perception. By age 2, children will have 20/20 vision.
- This dramatic wiring of vision is why neuroscience researchers, doctors, and child development experts believe that during the first two years of life babies should be surrounded by the natural things in their environment. Their brains are wiring for the three-dimensional world in which they live. Technology screens (computers, TV, cell phones) are two-dimensional. Too much time spent looking at these screens confuses the wiring that is being forged. Researchers, pediatricians, and child development experts further believe that babies need to be moving and exploring the world around them as vision is not the only thing wiring during the first two years. A baby's brain is laying the foundation for physical, social, emotional, cognitive, and language development.

What You Can Do

- Limit use of television and computer screens. Although researchers and doctors recommend no use of technology screens, it is really about not abusing the use of these items. Fifteen minutes a day will not harm your baby's vision.
- Instead of technology screens, provide your baby with books, colorful toys, and opportunities to move and explore. These things help optimize the development of your baby's brain and are much more important in the early years than anything technology screens can offer.
- Your baby's favorite thing to look at is your face! Make eye contact with your baby when you talk to him. Smile often. Make funny faces. Play games that involve the face, such as "Where is Baby's Nose?" and "Peek-a-Boo."
- As your baby grows, keep technology screen time in check. Researchers agree that two hours a day should be a limit for preschool and elementary age children. Every hour spent with technology reduces face-to-face interactions with people by 30 minutes. It is face-to-face interaction with people that helps the brain wire for social skills.





- Dear Parents,
- Maximum brain function is dependent on good nutrition. Protein is the number one brain food. It is critical to alertness, attention, and thinking. The brain functions best when a diet includes protein, selenium (seafood and whole-grain breads and cereals), boron (broccoli, apples, peaches, and grapes), folic acid (green leafy vegetables, beef, liver, and beans), zinc (fish, beans, grains), and vitamin B. All of these vitamins and nutrients are more effective when obtained from a natural source instead of a supplement.
- Research shows that a nibbling diet, six small meals a day, has more advantages to brain function than a traditional three-meals-a-day diet. Both thinking and behavior are enhanced.
- This is perfect for toddlers who much prefer to eat smaller portions more frequently. Follow the cues of your little one rather than a predetermined schedule. Children have an internal sense of what works best for them.

What You Can Do

- Enjoy feeding time. Talk to your baby while she is eating. Children will eat more slowly and will be more likely to experiment with eating new foods. This is also a good time to model manners for older children.
- Take cues from your baby. Little ones do an incredibly effective job of self-regulating. They will let you know when they are hungry (chewing fist, crying) and will also let you know when they are finished eating (turning head away, refusing to open mouth).
- When spoon feeding, let your baby see the food on the spoon. Hold the spoon 10-12 inches away from her face. (No one likes to have something they can't see shoved into their face.) Wait for your baby to show signs of readiness, such as parting the lips or opening the mouth. Don't rush feeding.
- Occasionally serve finger foods (small slices of ripe bananas, wheat cereals, finger sausages, fish sticks). Not using a spoon makes eating so much easier.
- Use a red placemat or red plate for a picky eater. The color red has been shown to enhance appetite.
- Move your baby's feeding table on occasion. A new view is inspiring to everyone and novelty is a big winner when it comes to paying attention.
- Provide healthy snacks. Balance protein with complex carbohydrates. Try serving toasted oat cereal, small pieces of ripe fruit without seeds or skin, small pieces of well-cooked vegetables such as carrots and squash, and small pieces of soft cheese served one bite at a time.





Dear Parents,

Reading to babies during the early years is credited with helping them learn to speak, enjoy reading for a lifetime, and develop vocabulary. A reading voice and a singing voice sound different from a speaking voice. Each of these ways of communicating are important for helping children learn the sounds, intonations, and nuances of language.

The size of a child's vocabulary is considered by most researchers to be a reliable predictor of a child's reading success. Babies who are sung to, spoken to, and read to during the first 18 months of life will have a vocabulary that consists of 185 more words than that of a peer who was not provided these rich language experiences. This gap is difficult to extinguish and many researchers believe children with poor language starts will never catch up with their peers.

We do know that children who enter kindergarten with rich language experiences will have 1,500 more words than a peer without this background. This number represents about half of the vocabulary most five year olds possess.

What You Can Do

- Read to your child daily. Make it a routine. It may be part of your bedtime or bath time ritual. It doesn't matter when it happens. It matters that it happens.
- Read the same book several times. Your baby will learn a little more about the story and illustrations each time she hears you read it.
- Make books available to your baby. Board books and cloth books are both made to stand the harsh treatment they receive while a young child is learning how to handle them properly.
- When your baby is around 9 months, begin moving your finger below the words as you read. This helps your child understand that words make up the story and that words are made up of letters.
- Make reading time pleasant. Use this as a time to snuggle with your little one.
- Allow older babies to help turn the pages. They usually show an interest in doing this at around 12 months.
- When books aren't available, tell your baby a story. Recite a story from your childhood or just make up a new story. If you make up a new story, insert your baby's name for a special delight!
- Let your baby see you reading. This helps demonstrate the many purposes of reading. Learning to read is part mechanics (learning letter sounds and sight words) and it is part disposition (the desire to read). Demonstrating all the many ways that reading helps you, encourages your baby's desire.

