COGNITION

PARENT HELPER

A GUIDE TO DEVELOPMENT IN YOUNG CHILDREN, BIRTH THROUGH AGE FIVE

MARYLAND STATE DEPARTMENT OF EDUCATION
Division of Special Education/Early Intervention Services • Early Childhood Intervention and Education Branch
PARENT HELPER...The Series

The Maryland State Department of Education publishes a series of PARENT HELPER handbooks covering a variety of skill development areas.

- BOOK 1, Parent Helper: OVERVIEW
- BOOK 2, Parent Helper: Communication
- BOOK 3, Parent Helper: Cognition
- BOOK 4, Parent Helper: Motor Development
- BOOK 5, Parent Helper: Socialization

For a single handbook or for the entire PARENT HELPER series, contact the Maryland State Department of Education, Division of Special Education/Early Intervention Services, Early Childhood Intervention and Education Branch, 200 W. Baltimore Street, 9th floor, Baltimore, MD 21201; 410-767-0261 Voice; 1-800-535-0182 Toll Free; 410-333-8165 Fax.

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Introduction

PARENT HELPER: Cognition

Parents are the primary teachers of their children in the early years of life. The PARENT HELPER: Cognition handbook is one in a series of publications written specially for parents.

This handbook is designed to help parents support their child’s need to make “sense” of life experiences. It provides information on the sequential process of cognition—the process by which knowledge is acquired. It also suggests ways in which parents can create at-home learning opportunities that guide cognitive growth.

Because no two children are exactly alike, and since some children may face special challenges, this PARENT HELPER handbook simply offers broad and general guidelines. Each child’s developmental level will influence how fast, how much, and how well he processes information. Working together, parents, and early care and education providers can share knowledge, creativity, and commitment for making the most of each young child’s development.

Many suggestions found in this handbook have come from parents. Others have been successfully used by providers. It is hoped that the suggested activities will assist you in creating a secure, loving environment which will encourage your child’s cognitive growth.
What is Cognition
Cognition is a complex process associated with such mental activities as understanding, knowing, remembering and making sense out of one’s experiences and environment. Cognition begins at birth and continues in a recognizable pattern throughout childhood.

During the early years of childhood, children acquire important mental tools necessary for learning and understanding their world. Cognitive growth does not occur in a vacuum; rarely are behaviors solely cognitive just as few behaviors are purely social or motor.

The Starting Point of Cognition
Sensory experience is the starting point of cognitive development. Seeing, hearing, touching, moving, smelling, and tasting allow the child to expand the understanding of his/her environment.

As a child begins to explore and seek new experiences, he begins to store information. This is the beginning of organized thinking and use of knowledge in various settings and ways. For example, a young child might make the discovery that certain objects, like wooden blocks are good for banging and making noises, whereas soft and pliable objects like teddy bears are good for holding and cuddling.

A child might show you that he has this notion about these two kinds of objects by the way the child’s hand approaches and uses familiar and new objects. This use of information is important for development of more complex thinking.

Memory and Personal Experience
Memory plays an important role in the development of cognition. Without memory, the brain cannot manage to compile, compare and contrast information. Memory is necessary for relating past and present events and making decisions.

The forming of concepts results from many personal experiences with people, places, things, and feelings. One way that children build concepts is by linking together objects or experiences that are similar. Infants begin at an early age to notice likenesses and differences. Later, children can be helped to notice specific attributes such as size, shape, color, use, weight, and textures and to use this information for grouping objects. As it is acquired, language helps children to organize, label, and group experiences using symbols.
Developing Concepts

Initially, a child’s concepts of people, place, things, and experiences are highly general. For example, a young child might lump all animals into a class of “bow-wows.” Later, as she learns to identify the different properties of animals, the concept becomes better defined and focused. The child may begin to sort animals according to color, shape, size, where they live, what they eat, and what noises they make.

At the same time the child is discovering differences between animals, she is putting all of this information together to form a general class known as animals. The process takes time and as the child matures, her thinking process becomes more complex.

Young children tend to be explorers and testers. Children seem to learn most easily from situations that are slightly new to them but related to what they already know.

Developmental Milestones

The following Developmental Milestones offer a general sequence and age range for cognitive skill development. You may find this information helpful in planning activities that are appropriate for the developmental level of your child.

As you observe your child’s development, remember that no two children are exactly alike, so your child may develop at a different rate than what is suggested here.

If you have questions or concerns, contact your child’s early care and education providers.
## Developmental Milestones - COGNITION

### 0 to 3 Months
- Looks at an object or person
- Follows movement of hands with eyes
- Shows positive response to familiar sound
- Responds to new sounds with movement or voice

### 3 to 6 Months
- Recognizes mother
- Imitates cooing sounds
- Repeats action on objects
- Finds partially hidden object
- Looks at hand and object when grasping
- Uses movement or sound to continue a game

### 6 Months +
- Places five shapes correctly in a form board
- Places three shapes correctly in a form board
- Identifies parts of own body; name five body parts
- Points to pictures in a book upon request
- Imitates sounds, words, or body movements
- Finds object from indirect visual cues
- Attends to nursery rhymes
- Activates objects directly

### 9 to 12 Months
- Plays simple games, like pat-a-cake
- Acts on or with visible toys or objects
- Moves to reach a desired object
- Finds a completely hidden object
- Looks at pictures in book
- Touches adult or object to cause action

### 36 to 48 Months
- Plays simple games, like pat-a-cake
- Acts on or with visible toys or objects
- Moves to reach a desired object
- Finds a completely hidden object
- Looks at pictures in book
- Touches adult or object to cause action

### 48 to 60 Months
- Plays simple games, like pat-a-cake
- Acts on or with visible toys or objects
- Moves to reach a desired object
- Finds a completely hidden object
- Looks at pictures in book
- Touches adult or object to cause action

### 60 Months +
- Places five shapes correctly in a form board
- Places three shapes correctly in a form board
- Identifies parts of own body; name five body parts
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### 0 to 3 Months
- Responds to own name
- Uncovers partially-hidden toy
- Imitates simple, familiar gestures, like shaking a toy
- Tracks object that has fallen out-of-view

### 3 to 6 Months
- Responds to own name
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### 0 to 3 Months
- Engages in simple make-believe play
- Matches familiar objects; sorts objects into two categories
- Understands one-to-one relationship of sets up to 10
- Points to “one” object and “many” objects

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The Discovery Process...
How Children Learn

Exploring. Experimenting.
Children discover the world through exploration. They move about exploring and discovering new faces, places and things. Your child needs to handle different kinds of objects and figure out how things work, where pieces fit, and why things act in expected ways. Trial and error discoveries can lead to developing ways of generalizing about objects, events, and problems.

Paying Attention.
In order to learn, children have to select important aspects on which to focus. Attention span—or how long a child can concentrate—usually increases with maturity and is influenced by how interesting an experience is for your child.

Adapting.
As children encounter new events, they relate them to remembered experiences. Earlier learning is slightly changed each time to fit new experiences. This is how your child’s knowledge is broadened.

Children experience the world through their senses. They smell sweet vanilla, taste salty crackers, touch soft kittens, hear loud bangs, and see brightly colored ribbons. Your child learns by listening to sounds made by people and things, by looking at shapes, colors, and patterns, and by exploring with touch, taste, and smell.

Imitating Others.
Children learn by watching and imitating others. They develop new skills by first observing others then imitating the actions they observe. Repeating imitated actions eventually leads to mastery.

Asking Questions.
Even before they can ask questions with words, children signal their need for more information through gestures and expressions that show interest in some aspect of their environment. Responses to questions can take many forms. However, helping your young child figure out answers and showing, as well as telling, may work best.
Try the following to help your child develop new cognitive skills.

**Create an atmosphere for learning.**
Keep your child's developmental level in mind. Try to involve her in both routine and special family experiences. Raking leaves, cooking meals, going to the zoo, and attending birthday parties are all examples of stimulating activities for older toddlers and preschoolers. Shaking rattles and playing “peek-a-boo” games are activities that can be used with young babies.

**Stimulate your child's senses.**
Children explore by looking, listening, feeling, tasting, smelling, and moving. In general, young children learn best from experiences that involve more than just a single sense. If your child has an opportunity to put all or many of his senses to work, his ability to learn and remember may be strengthened.

**Build new skills upon past experiences.**
Children seem best prepared for success when the new skills which are presented are slightly more advanced than what they already do or know. Give your child a reasonable amount of freedom to choose activities independently and encourage attempts to go beyond that which is familiar and comfortable.

**Point out differences and similarities.**
You can help your child group objects and experiences by showing how things relate to one another. Putting all toy animals in one pile or picking out socks from the laundry basket are ways children can learn about object similarities. As your child matures, you can teach sorting of forks and spoons, pots and lids, and hats and mittens.

**Observe your child's behavior.**
Very young children show how they are processing information through their actions as well as by their spoken words. Play behaviors, hand gestures, facial expressions and emotional reactions to events are clues to your child's understanding of the world. Taking notice of these subtle measures of learning can help you select experiences that match your child's present abilities and interests.

**Allow time for practice.**
Praise your child's success but also help her understand that making mistakes is a normal part of the learning process.

**Talk to your child's early care and education providers.**
Parents and professionals can support each other through solid lines of communication. The sharing of ideas, challenges and solutions can benefit your child's learning at home, at school and in community program settings.
Make Home Your Child's First Learning Environment

Since your child's first learning environment is the home, you will want to make it a caring and stimulating place that is responsive to your child's needs and interests. The following ideas and activities are suggestions which may be helpful in creating a responsive learning environment. The suggestions are grouped for infants, toddlers, and preschoolers. Use your child’s developmental level rather than her chronological age to guide your activity choices. Additionally, do not think that you must introduce all of the activities at one time in the sequence listed within each grouping. Personalize these suggestions in ways that make sense for your child and family.

Suggested Activities for Infants

Provide opportunities for your child to exercise his senses.

1. Construct a homemade mobile by securing a towel across the crib. Tie two or three safe objects on it that look and feel very different. Renew your baby's interest in the toy by changing one of the objects every few days.

Change your child's position and you provide new things to see and explore. Change the location of the crib or high chair. Never have your child awake and alone in the crib or playpen for long periods of time.

2. Use your voice in different ways as you speak or sing to your child. Soft whispery tones, crisp bright sounds, loud boisterous noises all provide lessons in listening for your child.

Jog your child's memory through play.

3. Provide your child with sensations that feel good to the skin. A gentle massage might be an especially relaxing bath time activity and provide opportunities to talk about body parts and to label sensations with words; soft, smooth, wet, dry, warm, cool, fast, slow.

4. Surprise your child by playing peek-a-boo. This traditional game helps a child to remember that you are still there even when he/she can't see you. Vary the game by sometimes covering your face and sometimes your child's face.

5. Brush up on favorite nursery rhymes. Songs that couple the rhythm of repetitive words with a predictable action are especially fun for a young child. By playing the game many times the child remembers to look forward to a special word and to special actions because of the cues of the words and body movement.

6. Invent games to help your child learn to imitate. Begin by modeling actions that are easy for him/her to perform, such as banging or shaking. Give lots of praise for any attempts and “shape” the action with your hands, helping if necessary.

Choose safe toys to attract attention and encourage play.

7. Provide toys that are attractive, versatile, easy to pick up and hold, and strong enough to endure rough handling. Infants seem to prefer bright colored toys or those having bold patterns. As baby’s hands become more active, toys of different textures and shapes that can be grasped should be introduced.
**Introduce cause and effect concepts.**

8. Give the infant toys that make noise or move if they are mouthed, kicked, prodded, or poked. Keep the game going by retrieving fallen materials, setting objects within reach.

If your child's ability to grasp and hold is delayed or impaired, occupational and physical therapists are excellent resources. They can show you techniques and materials to use with your child to encourage hand use and aid learning through manipulating toys and objects.

**Suggested Activities for Toddlers**

**Make teaching a part of the daily routine.**

1. Use opportunities in the daily routine as learning experiences. For example, while shopping at the grocery store, let your child touch each item of frozen foods as you put it in the basket. Comment in simple terms, “Cold peas.” “Cold carrots. “Cold ice cream.”

**Be aware of fatigue and frustration.**

2. Stay with a learning activity only as long as your child remains interested. If you see signs of frustration or fatigue, bring the game to a close. So that your child will want to play again soon, try to end on a note of success. Talk about how well things were done.

**Build order into the environment.**

3. Organize your child’s important possessions by setting up clearly defined areas for storage. For example, a large basket might be fine for dress-up clothes; a low shelf would do for storing large blocks, and a cradle could be the best place for dolls and stuffed animals.

**Match up objects with their mates.**

4. Give your child the opportunity to match items into pairs, such as shoes, socks, and large buttons. Recognizing sameness contributes towards grouping and classification skills. Young children need many experiences with concrete objects before the abstract idea of “things that are just alike” is grasped. Later, after your child has grasped the idea of same, introduce the concept of “not the same” or different.

Contrast objects that are not the same because of obvious differences. For example, contrast a large mixing spoon with a teaspoon. Talk about the big one and the little one. Color differences can be illustrated in the same way.

**Feed language into daily activities.**

5. Keep a flow of conversation going as you play with your child. You can supply words that turn concrete experiences into language symbols. Toddlers, and older children as well, often use gestures to describe their ideas. This nonverbal means of communication can strengthen concepts and may be accepted as a complement to verbal language. When you are with your child, say and show the obvious. For instance, say, “All gone” when the child’s plate is empty.

If your child has a communication disability, you will want to get special assistance from professionals. Talk to a speech-language pathologist about methods of communication that are best for your child’s present needs.

Reminder: Always chose activities that are appropriate for your child’s level of development.
**Model actions for your child to imitate.**

6. Challenge your toddler with increasingly difficult movements to imitate. Some ideas for playing the “You do it game” include, using a mirror to practice facial movement like blinking eyes, touching chin with finger, making happy and sad faces; and introducing simple songs with finger play and actions, such as “Itsy Bitsy Spider,” and “This Little Piggy.”

**Provide opportunities for your child to see how things work.**

7. Allow your child to manipulate household objects to discover ways to make them work. With you close at hand, help your child turn light switches on and off, flush the toilet, mix eggs in a bowl, water the flowers with the garden hose, fit a key into a lock, answer a telephone.

**Investigate special relationships.**

8. Encourage movement which has some result. By helping children learn ways to move, they begin to know about their bodies, what they can do.

Have your child pull a cloth to uncover a favorite toy, push a button to ring a bell, use a stick or rake to get a toy that is out of reach.

9. Let your child push chairs, large boxes, wagons, or baby stroller to learn about size, shape, weight, and moving objects around obstacles. Encourage the use of cardboard boxes for crawling into, peering over, knocking down, filling and emptying. Let your child fill oatmeal boxes with wooden beads and dump them out again.

**Use child's interest in himself.**

10. Play games in front of a mirror with your child on your lap. Prop him up to sit or place him on his tummy to play.

**Use everyday situations as learning experiences.**

11. After your child’s bath, encourage her to practice rolling over by wrapping her loosely in a towel or blanket and gently pulling the edge of the towel so that she rolls over. When she is strong enough, use a jumper chair or infant seat for her to play in while you work.

**IMPORTANT NOTE:** Developmental areas overlap. So a delay or impairment in development of large or fine motor skills may influence the rate and the means by which your child learns other developmental skills. Work with your child’s early care and education providers to plan for cognitive learning experiences, especially if your child is not able to manipulate toys and objects independently or to move freely around your home.
Suggested Activities for Preschoolers

Help your child find out what belongs together.

1. Classify real objects when your child is learning a new attribute, such as color, size, shape, and function. Later, pictures can be substituted in classifying activities.

2. Try to build a physical component into classifying exercises. Encourage handling the objects used. Structure the exercise for success by starting with very basic categories.

3. Work together making choices, until your child is beginning to grasp the correct pattern. Try not to let your child make lots of mistakes. A container that holds each group can remind the child of the attribute to be identified. For example, have red and blue blocks sorted into red and blue bowls.

4. Try these “classifying games.” As you play with your child, try to use objects that are especially interesting to her.

   **Classify by Color:** Sort blocks, socks, mittens and dishes.

   **Classify by Size:** Put big and little cans into big and little bags.

   **Classify by Action:** Place things like toy cars, trucks, and wagons into a “garage” and place items like bells, drums, cymbals, and shakers into a music box.

   **Classify by Location:** Point out refrigerated food and pantry food.

   **Classify by Function:** Talk about things to eat and things to play with.

5. Talk to your child’s teacher or speech-language pathologist concerning the classifying activities that your child may be performing in school. Make sure that everyone is using similar terms and techniques to encourage this fundamental thinking tool.

   **Work with your child on solving problems.**

6. Play “What If?” games to provide practice in finding solutions. Ask questions such as:

   “What if your soup was too hot to eat?”
   “What if you spilled paint all over the floor?”
   “What if drivers didn’t stop for red lights?”
   “What if you couldn’t find me in the store?”

7. Give your child form boards and puzzles to put together. Working to make pieces fit gives practice in recognizing the relationships of parts to whole and of size, shape, position, and direction.

8. If your child has fine motor difficulties (such as difficulties using fingers to grasp small objects), talk to his or her teacher and occupational therapist about adaptations that can be made for puzzles and other learning materials.

   **Read to your child.**

9. While most preschool aged children are not developmentally ready to learn to read, reading to your child can foster a positive attitude toward reading and provide both of you with a relaxing and productive time.
Help your child discover the world. Take your child on discovery trips to these exciting places.

- Zoo or Park
- Pet Shop
- Firehouse
- Construction Sites
- Parent's Workplace
- Car Wash
- Train Station
- School Fairs and Carnivals
- Library
- Movies
- Post Office
- Science Centers
- School Bus Stops
- Diary Farm
- Sporting Events
- Airport
- Children's Museum

10. Let your child’s interest guide your selection of books. Pick books with illustrations. Good illustrations are essential for attracting and holding your child's interest.

11. Simplify stories to match your child’s level of understanding and communication.

12. Read your child’s favorite books over and over.

Exercise memory skills.


14. Help your child build associations between new information and old “knowledge.” Point out links, showing how things are similar. Compare differences as well. Increasing skills in grouping and classifying make memory processes more efficient.

15. Set up food or toy “stores” with household items. Send your child to the “store” with a “list” of things to be purchased. Have your child repeat the list after you to aid recall.

Experiment with nature and science.

16. Use simple experiments to teach youngsters to predict what will happen based on experience. You are your child’s first guide through the natural world. Provide ideas, tools and a degree of freedom. Sometimes your child might want to discover independently. Try not to interfere and “over-direct.” At other times, your child might need you to play along side to keep the activity fun and productive.

17. Test an assortment of objects in the bathtub to see what floats and what sinks. Go slowly, letting your child handle each one in the water. After experimenting with some, encourage predicting what will sink or float before it is tried out in the water.

18. Have your child place a pan of water (an inch or so) outside on a cold night. Check it the next morning to see its change. Compare it to ice from the freezer. Watch the action as the pan is placed on a warm radiator.

19. Test water’s effects on a variety of materials. What happens to a dry sponge, a drop of food coloring, and a squirt of liquid soap when you put them in the water.
20. Use a magnifying glass to reveal a new world to your child. Help your child pay attention to what is seen by asking questions such as, “Is the ant moving? Does it have legs? Where do you think it is going?”

21. Find out what is inside natural and manufactured things. Your child needs to know the many parts that make up a whole.

22. Take walks in a variety of places, such as in the park, in the woods, or by a stream. Point out birds, flowers, or trees. Encourage the child to feel, smell, and touch when appropriate.


24. Make discoveries in the kitchen and eat the delicious results. Help your child transform cream into butter. Bake bread. Roll out biscuit dough into special shapes. Match each shape with its hole. Use unflavored gelatin and fruit juice to make gelatin cubes.

25. Raise plants, flowers and vegetables indoors and out. Experiment with seeds and small plants such as cherry tomatoes, squash, or peppers. Plant brightly colored flowers that bloom in different seasons. Let watering be your child’s special responsibility.

Help promote basic concepts of amounts and numbers.

26. Use amount words to describe object amounts. “You have all of the blocks and Jamie doesn’t have any. Please give her some”. Show by modeling and by gesturing what you mean by these terms. Practice often and use lots of different examples.

27. Illustrate amount words such as more, less, big, and small. Make three sand mountains and point out big, bigger, biggest. Make sand roads long, longer, longest. Make sand cakes small, smaller, and smallest. Line up the family shortest to tallest.

28. If your child seems interested in counting, channel this interest by giving her real objects to count, such as shoes, beans, and pencils. Have your child touch each object as it is counted. Provide jobs to do that involve counting.

Venture into the neighborhood and beyond.

29. Prepare your child for what might be seen. Introduce new vocabulary words. Review “best” manners and special ways of behaving during your visit.

30. Whenever possible, relate what your child sees to what your child already knows. Compare and contrast new experiences with old ones.

31. Follow up your visit with play to help your child remember and understand the experience. Play make-believe fire fighters after touring the firehouse. Ask and answer lots of questions about what your child experienced during the visit.
You have probably discovered that your child needs some specific time with you for a certain activity each day. However, there are also many opportunities that occur naturally in the daily routine which can promote cognitive development. The following activities serve as reminders that thinking skills form a foundation for many kinds of developmental learning.

Sample Teaching Activity #1: MEGAN’S BIRTHDAY PARTY

Megan’s family encourages her cognitive development by letting her help in planning her own birthday celebration.

**Description:** Megan, who will soon be five, is quite like other preschoolers in her neighborhood. She has several “best” friends from her block and from her community preschool. She relishes make-believe play, collects dolls and dinosaurs, and wears leotard and tights to gymnastics on Saturday mornings.

Megan does differ from her peers in the rate that she learns. Because she has Down’s Syndrome, she is developing much more slowly than the average child. She began to speak in short phrases when she was three and a half. Large and small motor skills emerged slowly as well.

Megan can now understand and say a large number of words. Usually she speaks in whole sentences. She handles most large motor tasks adequately at the four-year-old level and her fine motor skills have improved markedly since her parents and teachers noticed that she seemed to be farsighted. Glasses have corrected her vision and she now enjoys participating in activities that require eye-hand coordination.

**Activity:** The big event in Megan’s household is her upcoming birthday party. Megan’s parents want to turn party preparations into hands-on learning experiences for their enthusiastic little girl. Carefully they decide ways that the before-party activities can strengthen important concepts and provide practice for thinking skills.

To help Megan understand how much time was left before her birthday, her mother drew a large calendar. Together, they talked about what had to be done to get ready for the party. Her mother drew simple pictures to represent the tasks that needed to be accomplished over a week’s time. On Sunday, they will fill out party invitations and address envelopes. Megan’s special job is to match the name on the invitation with the name on the envelope.
On Monday, they will make party hats by folding and stapling construction paper into cone hat shapes.

On Tuesday, they will shop for party favors, making sure that they have the correct number-one for each of the five guests and one for Megan’s little brother. Megan’s special job is to count the chosen favors.

On Wednesday, they will make paper chains to string from the ceiling. Megan’s father makes the first one and challenges Megan to make one exactly like his—just as long and using the same pattern of colors. They compare the two chains to make sure that they both are the same. Next, Megan is set to work to make two short chains using a different pattern of colors.

On Thursday, Megan, her three-year-old brother and her mother will act out her birthday party, pretending that guests have arrived. Her mother will help her practice and remember how to make her friends enjoy her party. They will select several games to play in a group and go over the rules and the techniques

On Friday, they will bake the cake and make the icing. Megan’s special tasks are following directions, measuring dry and liquid ingredients accurately and stirring carefully.

On Saturday morning, they will set the table and hang paper chains and balloons. Megan’s special assignment is placing one party favor, one hat, one plate, one cup, one fork and spoon, and one napkin for each of the children at the table. Five friends plus one brother plus one birthday girl equals seven.

For Megan, each phase of party preparation will provide an exciting opportunity for practicing important cognitive skills that explore numbers, sizes, shapes, colors and time.
Sample Teaching Activity #2:  
CRYSTAL’S TOYS  

Crystal’s parents use toys to stimulate her cognitive development.

**Description:** Six-month-old Crystal was born 10 weeks prematurely and spent the first two months of life in an incubator. Since her parents lived about four hours away from the hospital, they were only able to visit her one day each week. According to her parents, Crystal was fussy and often cried “for no apparent reason.” She seldom recognized her parents or moved in response to sounds or noises. Soon, it was discovered that Crystal has a hearing impairment.

**Activity:** Working with her pediatrician and staff from their local Parent-Infant Program, Crystal’s parents soon realized that Crystal needed a great deal of consistent and loving care. She needed opportunities to develop a sense of trust and to explore her environment.

Crystal’s father plays with her frequently. He makes a funny face and when Crystal watches him with interest or smiles, he repeats the face. Dad has discovered that by repeating Crystal’s cooing sounds either at a greater volume or closer to her, he can get her to repeat them. He continues the game by repeating her sounds or by adding new ones.

Together with the early intervention staff, Crystal’s parents are beginning to introduce activities that require Crystal to play with toys which produce sounds. Crystal is learning that by swiping the mobile or shaking the rattle, she can create sounds. Crystal’s father places a brightly colored rattle into her hand so she can see it. Crystal explores the rattle, first putting it into her mouth and then shaking it.

Crystal enjoys the chance to hold, shake, and mouth a variety of objects. Mom shares the toys with Crystal, allowing her to explore them in a playful way and then to retrieve them. To change the game, Mom has Crystal reach for the toy from different directions, with one hand and then the other. Mom changes the toy to keep Crystal’s interest in the game.

Both of Crystal’s parents recognize the changes in her response to them and to her environment. They are feeling more comfortable identifying and meeting her needs.