



# Ready To Learn

## Early Childhood Growth and Development

More has been written about enriching the experience of preschool children than any other age group. Research has inspired countless programs aimed at improving their environments, all with the goal of stimulating their brains in a way that increases their capacity to learn.

### "LITTLE SCIENTISTS"

As the preschooler's brain becomes more sophisticated, an important and expected stage that emerges is the development of curiosity. By the time a child is able to move about independently, her curiosity is no longer bounded by a lack of mobility and the limited objects, sights, and sounds in her immediate surroundings.

Preschoolers, like scientists, are constantly experimenting with their environments. They think, draw conclusions, make predictions, look for explanations, and investigate. For example, by touching, chewing, tasting, smelling, and manipulating objects, a toy can now exist in the child's sensory world and exist as an idea with a name, such as "Bearby" or "Teddy." What naturally follows is that the more she is stimulated by these experiences, the more she will crave new ones.

### THE EXPLOSION OF LANGUAGE

Preschoolers' exploding language skills have a crucial impact on their learning. Providing a rich language environment with a daily diet of conversations, songs, stories, and rhymes encourages them to expand their vocabularies and stretch their minds. Preschoolers who are listened to and responded to when speaking learn appropriate communication techniques and will benefit in the long run in terms of speech, language, and even reading acquisition.

### INFANT BRAIN DEVELOPMENT

Over the past decade, scientists have gained exciting new insights into the



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biological workings of an infant's developing brain. At the same time, powerful medical tools — such as brain scans — allow researchers to learn more about the brain than ever before. New insights point to the following important principles:

- The brain development that takes place before an infant is one-year old is much more rapid and extensive than previously understood;
- Brain development is immeasurably influenced by environmental factors such as nutrition and quality of care;
- Environmental influences on a developing brain are long lasting. Early stress adversely affects a growing brain's lifelong capacity for learning, memory and function.

## BOUNDLESS POTENTIAL FOR LEARNING OPPORTUNITIES

According to recent research, before preschoolers enter kindergarten, their brains are more active and more flexible, with more connections per brain cell, than the brains of adult human beings. By age three, the child's brain is actually twice as active as an adult's. Thus, it is important that parents and caregivers keep their children's environment as rich, stimulating, and safe as possible, with enough freedom so that each child can explore it at her own pace.

Educators often think of a child's questions as potential learning opportunities. The busy mind of a preschooler suddenly has room now for imagination, creativity, friendships, and acquiring more complicated skills. If encouraged, the preschooler will continue to generate much of her own enrichment simply by asking questions. By answering them in a way that generates thought and presents a new concept, the preschooler not only understands something new about her world, but also learns that her curiosity and questions are valid and worthy of time and attention.

## ENRICHED ENVIRONMENTS

Parents and caregivers can make the most of a child's critical early years by presenting new challenges and new physical and mental challenges to explore.

The National Association for the Education of Young Children (NAEYC) in Washington, D.C., publishes a resource book on the kinds of learning and teaching they recommend for young children, called *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8*.

For three-year olds, they suggest that adults allow and encourage:

- Play, both alone and with friends;
- Exploration, indoors and out, with active running, jumping, chasing, tricycling, and catching balls, and hands-on activities like using construction sets, art materials, and puzzles;
- Experimentation with blocks, sand, water, bubbles, seeds, and other objects in the environment;
- Language and musical skills through conversation, stories, songs, rhymes, and instruments.

For four-year olds, they expand the list with:

- Field trips to zoos, puppet shows, children's exhibits, and museums;
- Learning centers in a classroom where a child can choose between puzzles, books, math games, science games, blocks, art, and dramatic play;
- Simple problem solving in areas such as math, science, social studies, and health; using tools, wood, water, measuring devices, clay, blocks, and cooking ingredients;
- More development of language, music, and art abilities through listening to and looking at stories and poems in print, playacting, drawing, copying letters, singing, and playing instruments.

For five-year olds, NAEYC continues to recommend time for playing, burning off energy and practicing hand skills. But they also introduce the notion of theme learning: choosing a topic of interest to children, say a visit to the farmer's market or the ocean in a coastal town, then incorporating reading, writing, math, science, social studies, art, and music activities around this topic.

Sources include but are not limited to:

*CHILDHOOD* by Laurence Steinberg & Roberta Meyer, McGraw-Hill, Inc.1995; *Magic Trees of the Mind: How to Nurture Your Child's Intelligence, Creativity, and Healthy Emotions from Birth through Adolescence* by Marian Diamond and Janet Hopson, Plume, 1999; *Developmentally Appropriate Practice in Early Childhood Programs Revised Edition* edited by Sue Bredekamp and Carole Copple, National Association for the Education of Young Children, 1997; National Institute on Early Childhood Development and Education @ [www.ed.gov/offices/OERI/ECI/](http://www.ed.gov/offices/OERI/ECI/).

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