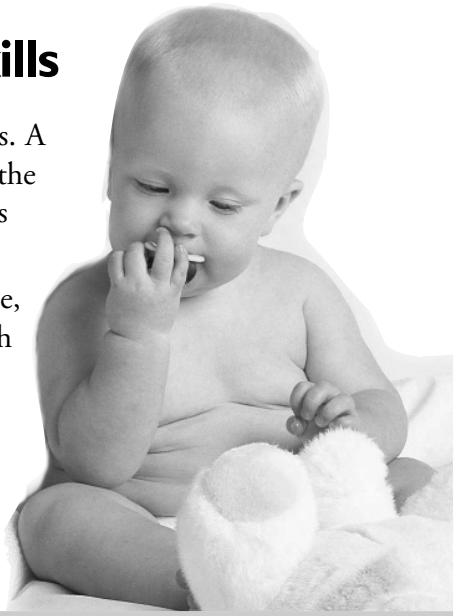
Development: **Promoting Thinking Skills**



Children are born with a need to understand how the world works. A baby's brain at birth has billions of neurons. Unlike other organs, the brain is not fully developed at birth. Stimulation and interaction is required for the brain to develop.

From birth, children gather information using their eyes, ears, nose, sense of touch, and taste. They start making basic associations such as "I cry, Mommy or Daddy comes."

As they grow, they develop more and more complex ways of figuring things out. In their everyday experiences, young children use and develop an understanding of math concepts, such as counting and sorting, as well as problem solving skills that they will need for school.

Birth-12 months

Babies are learning very important early **math and logic concepts**. They learn:

Cause and effect when they bat a hanging toy and it moves or they bang/shake a rattle and it makes an interesting noise.

Size & shape when they find that a ball will fit in one container, but not another or play with nesting cups.

Gravity when they drop a spoon and watch to see it land.

Object Permanence (things they can't see still exist) when they play peek-a-boo or find a toy hidden under a blanket.

12-24 months

Toddlers are like little scientists. They are eager to find out **how everything works**. They learn:

To use **trial and error** to solve simple problems when they play with toys that have buttons to push, latches, switches, and knobs to turn or put shapes in a shape sorter.

To **take things apart and put them back together** when they build with blocks or put together simple puzzles.

To **use their growing memory** and imitate what they see others do when they play with child-sized items like a vacuum, broom, tool set, or phone.

To be **fascinated by details** and tiny objects when they explore a toy or object and you point out details or go for walks outside and investigate the dirt, flowers, rocks, and trees.

24-36 months

A big leap in thinking skills occurs as children begin to understand symbols - that a word stands for a thing or idea. They begin to **understand how things are logically connected**. They learn:

Number concepts when they count with you as you walk up and down stairs or can hand you one block from several.

Color concepts when they match like-colors of blocks or point out all the green things they see outside.

About **sequence** when they help you talk about the order of things - first we brush our teeth, then we read a book, then we go to bed.

How to **follow two-part directions** when they act through directions that you give them such as "jump up and then clap your hands."

To be **creative** when they play with finger paint, crayons and chalk or make things from paper bags, construction paper, or play dough.

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