



## Milestones and Measurements *Math and Science*

Nearly one-third of all Virginia children aren't fully ready for kindergarten. Is your child ready?

Schools look for certain skills and abilities in children to be ready for school. There are many things to look for in 4 key categories of development:

- Language and Literacy
- Personal and Social Development
- Math and Science
- Physical and Motor Development

This checklist provides a list of important milestones. If your child is not progressing, as you think he should, try the learning activities. They are designed to encourage development through various stages. If you are concerned about your child's development, please consult with your health care provider or other medical professional for further diagnosis and recommendations.

| Math and Science                                |   |
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| Can Your Child                                  | Learning Activity   |
| Count to 10 or higher                           | Use rote counting (counting by memory) in games such as "tag," sing counting songs and poems such as Five Little Monkeys.   |
| Count five objects by touching each one in turn | Play "Count and Do" games. Use familiar items from the child's environment to count such as socks, buttons, Cheerios and M&Ms. Say, "Let's count out five Cheerios and then, let's eat them."   |
| Recognize some numbers                          | Fill the child's environment with numbers: toy clocks, timers, phones, thermometers, calculators, measuring cups and rulers. Show number use. <i>Example:</i> Set a timer and say, "We set the timer for three minutes. When the timer rings it will be time to read a book."                   |
| Name the colors in a box of eight crayons       | Say, "The name of this color is red. Let's go find some other red things in this room." Each time a red item is found say, "This is a red..." Continue with other colors until the child loses interest. Then, try again later. Ask the child, "Is this red?" Later, ask, "What color is this?" |



| <b>Math and Science</b>  |  |
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| <b>Can Your Child</b>  | <b>Learning Activity</b>   |
| Name the basic shapes: circle, triangle, square and rectangle  | Go on a shape scavenger hunt. This is fun to do in the grocery store where there are many different items to observe. Use only one shape for your search, preferably of a color such as white, black or gray (avoid confusing shape names with color names). When one shape is learned, add another. Make shapes with bread dough, tape, and scribbles on paper. |
| Match and sort by size, shape and color  | Give child tiles or colored paper shapes of different sizes and say, "Let's put the ones that are alike together." When finished, talk about the characteristics (size, shape or color) used for sorting and matching. "You put the large ones here!"  |
| Compare and describe objects and sounds in the environment in terms of shape, size, color, texture, material, sound, or rate of movement | Help child collect and explore natural materials such as shells, rocks, fabric and wood scraps. Focus on environmental sounds such as bird calls, crickets, raindrops and wind. Play listening games: Example: Hide and play a familiar instrument. Ask child to point to the one that was played.   |
| Explore cause and effect relationships   | Plant seeds and draw pictures of seed growth; take ice from the freezer and watch it melt; introduce magnet play; give child experiences with ramps, pulleys and tracks; play "Guess What Will Float/Sink?"; explore mixing colors and gravity. Ask, "What will happen if...?"   |