

Summary of Children's Development and Need for Mathematics Instruction

- Young children have intuitive understanding of informal mathematics. They learn through everyday experiences and free play (Copley, pp3-5). Games and focused instructional times are also important to reinforce and expand young children's mathematics knowledge (Schoenfeld & Stipek, p12).
- Young children's math concepts are different from adults'. Teachers should try to understand each child's ideas and strategies and use those to plan and adapt instruction and curriculum (*Engaging Young Children in Mathematics*, p60-61).
- Young children are motivated to learn in a self-directed manner, so their instruction should be integrated with positive, self-directed, problem-solving activities (*Engaging Young Children in Mathematics*, p58-59).
- At-risk children need opportunities to engage in foundational mathematical experiences (such as counting, puzzles, and building with blocks) and to develop mathematical language so they are on par with other children by first grade (*Engaging Young Children in Mathematics*, Chapters 13 & 14).

Copley, Juanita V., 2010. *The Young Child and Mathematics, Second Edition*. Washington, D.C.: National Association for the Education of Young Children (NAEYC).

Clements, D.H. & Sarama, J. (Eds.) *Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education*. 2004. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Schoenfeld, A.H. & Stipek, D. 2011. *Math Matters: Children's Mathematical Journeys Start Early*. Report of a Conference held November 7 and 8, 2011 Berkeley, California. Available on the web at www.earlymath.org.