

## HELPFUL RESOURCES USING THE SCIENTIFIC METHOD

## ARTICLES

Bosse, S., Jacobs, G., & Anderson, T. L. (2009). Science in the air. *Young Children 64*(6), 10–15. Retrieved from http://www. naeyc.org/files/yc/file/200911/BosseWeb1109.pdf

The authors highlight how to create an environment that promotes scientific inquiry and encourages higher order thinking skills. Examples of science activities that promote observation, hands-on exploration, making predictions, problem solving, and discussion are provided.

Dubosarsky, M., Murphy, B., Roehrig, G., Frost, L. C., Jones, J., & Carlson, S. P. (2011). Incorporating cultural themes to promote preschoolers' critical thinking in American Indian Head Start classrooms. *Young Children 66*(5), 20–29. Retrieved from http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/Dual%20Language%20Learners/ecd/culture\_and\_diversity/Incorportaing-cultural-themes.pdf

This article focuses on Head Start programs on the White Earth reservation in Minnesota. The author highlights how classrooms learn about culturally relevant themes (such as ice fishing and trapping) while practicing higher level thinking skills (such as questioning, predicting and discussing findings).

Koralek, D., & Colker, L. J. (Eds.). (2003). Spotlight on young children and science. Washington, DC: NAEYC.

This entire publication focuses on incorporating science into early childhood education. Topics include capturing children's natural scientific curiosities, documenting children's learning, and supporting teachers as facilitators of scientific inquiry.

This article provides suggestions for implementing high-quality physical science activities. Examples are included of how teachers can support scientific inquiry processes such as making predictions and encouraging experimentation.

## BOOKS

VanCleave, J. (2008). Janice VanCleave's teaching the fun of science to young learners: Grades pre-k through 2. San Francisco, CA: Wiley & Sons.

This book provides interactive science lessons and reproducible activities for young learners. The first chapter describes the steps of the scientific method. Lessons and activities suggest ways teachers can incorporate elements of the scientific method such as encouraging children to formulate hypotheses and use investigation and experimentation.



For more Information, contact us at: NCQTL@UW.EDU or 877-731-0764 This document was prepared under Grant #90HC0002 for the U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, by the National Center on Quality Teaching and Learning. FALL 2012

Zan, B., & Geiken, R. (2010). Ramps and pathways. Developmentally appropriate, intellectually rigorous, and fun physical science. *Young Children 65(1)*, 12–17. Retrieved from http://www.naeyc.org/yc/pastissues/2010/january