



ARTICLES

Bartlett, C. 2011. "Integrative Science/Toqwa'tu'kl Kjjitaqnn: The Story of Our Journey in Bringing Together Indigenous and Western Scientific Knowledges." Proceedings of the 2005 Debert Research Workshop edited by T. Bernard, L.M. Rosenmeier and S.L. Farrell, 179-186. Eastern Woodland Print Communications. <http://www.integrativescience.ca/uploads/articles/2011-Bartlett-Integrative-Science-Mikmarwey-Debert-Chapter-17-proofs.pdf>

This article describes how bringing together the respective worldviews of Indigenous and Western scientific knowledges will help to generate an expanding ground of common understanding and a deepening respect for differences.

McClure, Elisabeth R., Lisa Guernsey, Doug H. Clements, Susan Nall Bales, Jennifer Nichols, Nat Kendall-Taylor, and Michael H. Levine. 2017. "STEM Starts Early: Grounding Science, Technology, Engineering, and Math Education in Early Childhood." *The Joan Ganz Cooney Center at Sesame Workshop*. http://joanganzcooneycenter.org/wp-content/uploads/2017/01/jgcc_stemstartsearly_final.pdf.

This report describes research and the important roles of teachers and family engagement in early STEM learning. The authors provide recommendations for improving STEM learning during early childhood.

Hadani, Helen Shwe and Elizabeth Rood. 2018. "The Roots of STEM Success: Changing Early Learning Experiences to Build Lifelong Thinking Skills." *Center for Childhood Creativity at the Bay Area Discovery Museum*. http://centerforchildhoodcreativity.org/wp-content/uploads/sites/2/2018/02/CCC_The_Roots_of_STEM_Early_Learning.pdf.

This report provides teachers and families with key findings from a review of over 150 research studies on early STEM skills. Each section includes practical tips for supporting STEM learning in young children at home or at school.

WEB RESOURCES

National Center on Early Childhood Development, Teaching, and Learning. 2017. "Making It Work: Implementing Cultural Learning Experiences in American Indian and Alaska Native Early Learning Settings." *Office of Head Start, Early Childhood Learning & Knowledge Center*. <https://eclkc.ohs.acf.hhs.gov/culture-language/article/making-it-work-implementing-cultural-learning-experiences-american-indian>.

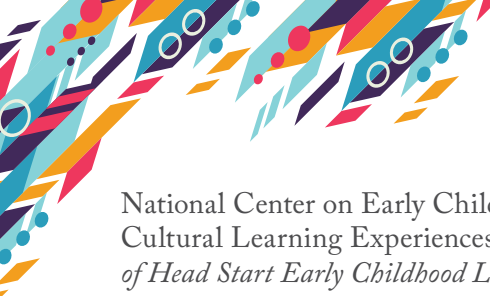
Making It Work is a suite of products that helps AIAN programs connect traditional cultural skills, values, beliefs, and lifeways to early childhood development and school readiness goals while involving families and communities in the process.

National Center on Early Childhood Development, Teaching, and Learning. 2017. "Understanding STEAM and How Children Use It." *Office of Head Start, Early Childhood Learning & Knowledge Center*. <https://eclkc.ohs.acf.hhs.gov/publication/understanding-steam-how-children-use-it>.

This resource provides an overview of the STEAM fields and how children ages birth to five engage with STEAM concepts and materials. It also describes how adults can work with children to support the development of STEAM skills.

National Center on Early Childhood Development, Teaching, and Learning. "Using the Scientific Method." *Office of Head Start, Early Childhood Learning & Knowledge Center*. <https://eclkc.ohs.acf.hhs.gov/video/using-scientific-method>.

Using the Scientific Method is a 15-minute in-service suite that describes the steps in the scientific method and how teachers can use these steps in daily activities with children.



National Center on Early Childhood Development, Teaching, and Learning. 2018. “Implementing Cultural Learning Experiences in AIAN Settings: A Webinar on Making It Work.” *Office of Head Start Early Childhood Learning & Knowledge Center*. <https://eclkc.ohs.acf.hhs.gov/video/implementing-cultural-learning-experiences-aiian-settings-webinar-making-it-work>.

Discover the importance of language and culture in American Indian and Alaska Native (AIAN) early learning programs. Making It Work is a guide for implementing cultural learning experiences. It fosters children’s development across the Head Start Early Learning Outcomes Framework (ELOF) domains. Hear from AIAN staff about how their traditional values and practices are at the center of their programs.

National Center on Early Childhood Development, Teaching, and Learning. “Engaging Interactions and Environments.” *Office of Head Start Early Childhood Learning & Knowledge Center*. <https://eclkc.ohs.acf.hhs.gov/teaching-practices/article/engaging-interactions-environments>.

These 15-minute In-service Suites are professional development resources for staff in busy, active early childhood centers and programs. Each suite focuses on one topic or big idea and addresses effective teaching and assessment practices.

National Center on Cultural and Linguistic Responsiveness. 2012. “Office of Head Start Head Start Cultural and Linguistic Responsiveness Resource Catalogue Volume Two: Native and Heritage Language Preservation, Revitalization, and Maintenance (Second Edition).” *Office of Head Start Early Childhood Learning & Knowledge Center*. <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/resource-catalogue-main-book-4.pdf>.

This resource supports Head Start programs working to preserve, revitalize, and/or reclaim American Indian, Alaska Native, Pacific Island, and other heritage languages. Catalogue entries showcase resources and practices on topics such as early childhood language nests, the use of technology in language learning, immersion preschool programs, and culturally responsive curricula.

National Public Radio. 2019. “How Cosmic Collision Sparked A Native American Translator’s Labor Of Love.” <https://www.npr.org/2019/03/31/706032203/how-a-cosmic-collision-sparked-a-native-american-translators-labor-of-love>.

This resource highlights how the Blackfoot, or Skisika, People translated press releases into their tribal language as gravitational waves from colliding black holes are detected. Through this project, there was renewed interest in writing a Blackfoot dictionary.

National Center on Early Childhood Development, Teaching, and Learning. “Revisiting and Updating the Multicultural Principles for Head Start Programs Serving Children Ages Birth to Five.” *Office of Head Start Early Childhood Learning & Knowledge Center*. <https://eclkc.ohs.acf.hhs.gov/culture-language/article/multicultural-principles-early-childhood-leaders>.

Each chapter of this resource presents one multicultural principle, research and guidance to support that principle, and questions and/or discussion activities.

Stephens, S. 2000. “Handbook for Culturally Responsive Science Curriculum.” *Alaska Science Consortium and the Alaska Rural Systemic Initiative*. <http://ankn.uaf.edu/publications/handbook/handbook.pdf>.

The handbook helps teachers offer a culturally responsive science curriculum that integrates Native and Western knowledge systems.

U.S. Department of Health and Human Services, Administration for Children and Families. 2015. “Native Language Preservation, Revitalization, Restoration, and Maintenance in Head Start and Early Head Start Programs.” *Office of Head Start Early Childhood Learning & Knowledge Center*. <https://eclkc.ohs.acf.hhs.gov/policy/im/acf-im-hs-15-02>.

The Information Memorandum (IM) clarifies the Office of Head Start’s (OHS) support for teaching tribal languages to children in AIAN Head Start and Early Head Start.





VIDEO

Ryan, Finn, Lukas Korver, Supaman, Keller Paap, and Brooke Ammann. n.d. “Waadookodaading Ojibwe Language Immersion School,” Wisconsin *Public Television* video, 4:45.

<http://theways.org/story/waadookodaading>.

This video shows the Waadookodaading Ojibwe Language Immersion School engaging in a cultural practice important to their community—going to sugar bush. This is a great example of incorporating STEAM skills into a cultural practice. The video is available on The Ways website, which is produced by Wisconsin Public Television Education. The Ways is an educational resource featuring stories from different Native American communities near the central Great Lakes.