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| **The Right Stuff**  **Resources to Help Realize the**  **Promise of Each Vermont Child**  Colorful star |  |
| **Issue No. 13 September 2017**  **Featured Domain of the** [**Vermont Early Learning Standards**](http://education.vermont.gov/sites/aoe/files/documents/edu-early-education-early-learning-standards.pdf) **(VELS): Mathematics**  *Mathematics is the active process of making sense of the world around us, discovering regularities and patterns, and exploring big ideas related to number, operations, measurement, geometry, and spatial reasoning. Learn more below and starting on page 89 of the VELS.*  **More, All Gone, Empty, Full: Math Talk Every Day in Every Way** **(0-3)** [**http://readyforlearning.net/sites/readyforlearning.drupal.ku.edu/files/docs/Greenberg2012.pdf**](http://readyforlearning.net/sites/readyforlearning.drupal.ku.edu/files/docs/Greenberg2012.pdf)  *This article highlights how being aware of early mathematical concepts can help educators to be more thoughtful and intentional about using these concepts in everyday experiences and interactions with infants and toddlers.*  **Children’s Development of Mathematical Concepts: Ages 0-4**  [**http://www.norwood.k12.ma.us/curriculum/documents/childrensdevelopmentofmathconcepts-ages0-4.pdf**](http://www.norwood.k12.ma.us/curriculum/documents/childrensdevelopmentofmathconcepts-ages0-4.pdf)  *This resource highlights both developmentally appropriate math and fun ways to support the development of those concepts.*  [**Let's Talk About STEM Video Series**](https://www.zerotothree.org/resources/series/let-s-talk-about-stem-video-series) **(0-5)**  [**https://www.zerotothree.org/resources/series/let-s-talk-about-stem-video-series**](https://www.zerotothree.org/resources/series/let-s-talk-about-stem-video-series)  *Young children begin to learn about early science, technology, engineering and math (STEM) through play and everyday routines, activities and interactions. These videos, illustrating the development of STEM skills in the first five years of life, are essential to understanding are available in both English and Spanish. The URL for the Spanish version is* [**https://www.zerotothree.org/resources/series/hablemos-de-las-matematicas**](https://www.zerotothree.org/resources/series/hablemos-de-las-matematicas)  **Helping Teachers of Mathematics Integrate the Knowledge and Culture of Families Into Their Practice**  **(0-9)**  [**http://www.hfrp.org/complementary-learning/snapshots/helping-teachers-of-mathematics-integrate-the-knowledge-and-culture-of-families-into-their-practice**](http://www.hfrp.org/complementary-learning/snapshots/helping-teachers-of-mathematics-integrate-the-knowledge-and-culture-of-families-into-their-practice)  *This article highlights four key considerations for making math more relevant to each young child and family.*  **Early Childhood Mathematics: Promoting Good Beginnings** **(0-8)** [**http://www.naeyc.org/files/naeyc/file/positions/psmath.pdf**](http://www.naeyc.org/files/naeyc/file/positions/psmath.pdf)  *This joint position statement of the National Association for the Education of Young Children (NAEYC) and the National Council of Teachers of Mathematics (NCTM) highlights a set of principles for effective early math instruction. The document highlights the importance of including consideration of language, culture, and community in the context for teaching math, and offers suggestions for within and beyond classroom settings.*  **Early Childhood Teachers’ Misconceptions About Mathematics Education for Young Children in the US** **(0-8)**  [**http://www.earlychildhoodaustralia.org.au/wp-content/uploads/2014/06/AJEC0904.pdf**](http://www.earlychildhoodaustralia.org.au/wp-content/uploads/2014/06/AJEC0904.pdf)  *This article discusses nine common and widespread misconceptions about learning and teaching mathematics for young children. These misconceptions often interfere with understanding and interpreting recommendations for mathematics education and become subtle (and sometimes overt) obstacles to implementing effective practices in early childhood classrooms.*  **Let’s Talk, Read, and Sing About STEM: Tips for Families with Young Children (3-5)**  *You can discover STEM with your child in many ways. Talk, read, sing, play, sign or use other ways to communicate – whatever works best for your family. Here are some tips to help you get started.*  [**http://www2.ed.gov/about/inits/ed/earlylearning/talk-read-sing/stem-toolkit-families.pdf**](http://www2.ed.gov/about/inits/ed/earlylearning/talk-read-sing/stem-toolkit-families.pdf) (English)  [**http://www2.ed.gov/about/inits/ed/earlylearning/talk-read-sing/stem-toolkit-families-es.pdf**](http://www2.ed.gov/about/inits/ed/earlylearning/talk-read-sing/stem-toolkit-families-es.pdf) (Spanish)  **Let’s Talk, Read, and Sing About STEM: Tips for Preschool Teachers and Providers (3-5)**  [**http://www2.ed.gov/about/inits/ed/earlylearning/talk-read-sing/stem-toolkit-preschool-teachers.pdf**](http://www2.ed.gov/about/inits/ed/earlylearning/talk-read-sing/stem-toolkit-preschool-teachers.pdf)(English)  [**http://www2.ed.gov/about/inits/ed/earlylearning/talk-read-sing/stem-toolkit-preschool-teachers-es.pdf**](http://www2.ed.gov/about/inits/ed/earlylearning/talk-read-sing/stem-toolkit-preschool-teachers-es.pdf)(Spanish)  *Here are some tips for using daily routines* *to build math and science concepts and skills through play and exploration.*  **Math Through Songs and Music (3-5)**  [**https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/math-do-tools-songs-music.pdf**](https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/math-do-tools-songs-music.pdf)  *Singing songs and engaging in musical activities are fun and engaging ways to experience and learn early math-ematical concepts. This resource includes a list of songs with corresponding mathematical concepts that teachers can emphasize within the song. English and Spanish songs are included.*  **Math Concepts in Children’s Books** [**http://www2.ed.gov/pubs/EarlyMath/appendix.html**](http://www2.ed.gov/pubs/EarlyMath/appendix.html) **(3-9)**  *Reading is a great way to communicate mathematical concepts to a child. It also is a wonderful opportunity to spend time together. These books, some of which are available in Spanish, can build math, language, and literacy simultaneously.*  **Helping Your Child Learn Mathematics** [**http://www2.ed.gov/parents/academic/help/math/index.html**](http://www2.ed.gov/parents/academic/help/math/index.html) **(3-9)**  This booklet is made up of fun activities that parents can use with children from preschool age through grade 5 to strengthen their math skills and build strong positive attitudes toward math.  **Early Math Collaborative Videos** [**http://earlymath.erikson.edu/ideas/#/formats=11**](http://earlymath.erikson.edu/ideas/#/formats=11) **(3-9)**  *Search this website to find free videos based on grade level, math concept, or Common Core alignment.*  **Students Create Song for Learning Long Division (8-9)**  [**https://www.youtube.com/watch?v=CWB0CNl8RK4**](https://www.youtube.com/watch?v=CWB0CNl8RK4)  *Here’s an example how Universal Design for Learning can be used to help students learn long division.*  **Want more information about the VELS?** Check out the Vermont Early Learning Standards (VELS) online at [**http://education.vermont.gov/student-support/early-education/vermont-early-learning-standards**](http://education.vermont.gov/student-support/early-education/vermont-early-learning-standards)  **Want more free resources related to this domain?** An annotated collection of free resources related to mathematics is available at [**http://fpg.unc.edu/presentations/vermont-resource-collections**](http://fpg.unc.edu/presentations/vermont-resource-collections)It includes free evidence sources, print materials, videos, websites and more. | |
| **The Right Stuff** is a free, one-way listserv that is distributed monthly. Each issue features a domain of the Vermont Early Learning Standards (VELS) and resources for supporting the learning and development of young children, birth to Grade 3, in that domain. All resources are evidence-based, readily available and free. All or part of **The Right Stuff** may be freely shared or reproduced. Past issues are available at [**http://fpg.unc.edu/presentations/right-stuff**](http://fpg.unc.edu/presentations/right-stuff)  **The Right Stuff** is compiled by Camille Catlett, supported by the Vermont Agency of Education, and funded by the Vermont Race to the Top Early Learning Challenge Grant. Highlighted resources are available in English and Spanish.  To receive your copy of The Right Stuff each month, send an email **with no message** to  [**subscribe-the\_right\_stuff\_listserv@listserv.unc.edu**](mailto:subscribe-the_right_stuff_listserv@listserv.unc.edu)  To suggest resources, please contact Camille Catlett at [**camille.catlett@unc.edu**](mailto:camille.catlett@unc.edu) | |