

Frozen Preschool Science and Math Fun at Home and at the Library



One of my favorite things to hear from parents during our monthly Preschool Science and Math program is, "We are going to try this at home!" Creating opportunities for parents and their preschool-aged children explore science together is a big part of our mission in the promotion of early literacy and why we devote time and resources to preschool science and math. Research tells us that the more children know about the world, and the more opportunities they have to talk with adults about what they know, the more likely they will become successful readers. While talking about science and math may sound daunting, in a preschool context it has to be playful, hands-on, and fun! Below are a few things we did earlier in the month exploring winter topics. Try them at home and see if you had as much fun as we did at the library.



Frozen Dinos: This activity will get you and your child talking about how salt and water affect ice. (Essentially, salt raises the freezing temperature of water) Kids will also get the opportunity to use various tools and employ strategies to release objects from the ice. To prepare, place plastic figures in cake pans and fill with water. Let it freeze overnight. Once the water is completely frozen, release the ice from the pans. (We ran some warm water over the bottom of the pan to help this along) Set out tools to help crack the ice. I used cocktail ice crushers, plastic toy tools, and pipettes for the water. Place three different containers next to the ice: rock salt, water, and salt water solution. Explain to your child what is in each container and ask them to predict which will melt ice the fastest. Write down your prediction. Then, let your child explore using the materials provided. Talk about which solution was most effective in melting the ice. Was your prediction correct?

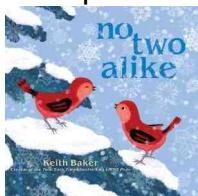


Measuring Winter: For this activity, I simply filled balloons with water. (Don't fill them up too much or the balloons won't withstand preschool hands!) I placed some of the balloons in the

freezer, some were filled with cold tap water, and others filled with warm tap water. Then, I encouraged families to place thermometers on the balloons to measure their temperature. Allowing preschoolers to handle scientific instruments in an age-appropriate manner is a wonderful way to make the realm of science accessible and practical.



Snowman/Snowflake Geometry: Creating art with shapes is one of my favorite ways to explore math concepts with preschoolers. For this activity, I provided stacks of pre-cut circles, squares, triangles, rectangles, and ovals. Families were encouraged to build snowman using the shapes provided, and talk about the shapes they used in their creation. For example, "How many circles will we need for the body?" "Would a round hat stay on as well as a square one?" or "How is this shape similar to another?" Families also created six-sided snowflakes using scientific photos as inspiration. (To prepare, fold a white coffee filter in half, then in thirds.) This snowflake activity also invites discussion of symmetry - how each side of the snowflake is the same shape. The book pictured below, written by Keith Baker, is a nice discussion starter on this topic.



I hope some of the ideas presented in this post will get you and your preschooler talking about science and math while observing the wintery world all around. If you would like to learn more about sharing science and math concepts with your preschooler, consider attending our upcoming Every Child Ready to Read @ "Fun with Science and Math" workshop at the library: Thursday, January 9, 2014, 10:30-11:30 a.m. - OR - Wednesday, January 15, 2014, 7-8 p.m. Posted by Christina J. on December 26, 2013

Blogs:

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Links
[1] <https://mag.infoblogsh.com/oh-the-thinks-you-can-think/its-a-winter-preschool-science-and-math-fun-home-and-library>
[2] <http://www.everychildreadytoread.org/project-history/129/literature-review-2010>
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