Sorting

Math skills like sorting give children a way to talk about objects and ideas, which develops vocabulary and general knowledge about the world. Remember, the more words and ideas they understand, the better children can comprehend what they read.

Activity:

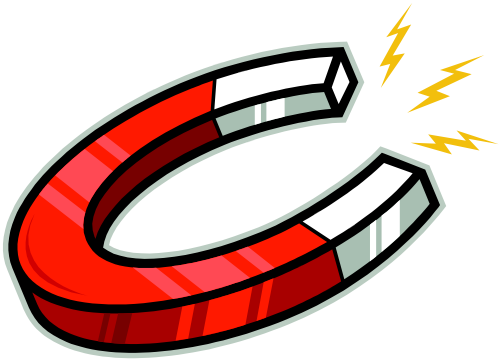
An ***attribute*** is something that helps us describe an object, such as color, size, shape, and so on.

- Choose an attribute with your child and sort the objects into groups together.
- Now, mix up the objects. Choose an attribute but don't tell your child what it is. Sort the items and see if your child can guess your rule for sorting.
- Have your child silently choose an attribute and sort accordingly. See if you can guess their rule.

For Parents To Do at Home:

- Ask your child, "What are some things we sort around the house?" (Laundry, toys, dishes, recyclables)
- Have your child help you in sorting tasks.

Magnets



Magnets teach about the forces of attraction (pulling something toward) and repulsion (pushing something away) in a fun way. Since magnetism looks like magic, it's also a great example to use when showing children that most "magic" is easily explained by science.

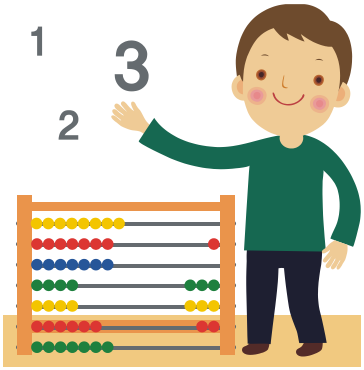
Activity:

- Dip the face end of one of the craft stick puppets into the pipe cleaner bits.
- Rearrange the pipe cleaner bits as desired to create different hair and beard styles.
- Discuss why the pipe cleaners cling to the magnets.

For Parents To Do at Home:

- Use refrigerator magnets to investigate how magnets react to each other. When do they attract each other? When do they repel each other?
- Gather a few small objects that a magnet will attract and a few that it will not, such as paperclips, stray metal or plastic buttons, dried beans, and so on. Let your child experiment to find out which objects will and won't interact with the magnets.

Counting Out



Making connections with tangible objects or physical activities can help children learn to count.

Activity:

- Choose a number between one and ten.
- Say the number aloud to your child, then say an action word like hop, clap, or wave.
- Count up to your number and do your action word once for each count. For example, if you chose five and hop, you would say, “One” and hop, “Two” and hop, and so on until you get to five.
- Now let your child choose a different number and action.

For Parents To Do At Home:

- Play this game together at home, or encourage your child to play it with siblings and friends.
- You can play the same game in the car using sounds instead of actions. For example, choose three as your number and quacking as your sound, then quack like a duck three times.

Preschool STEM Resources

References

Sorting activity found in: Mother Goose Programs. *What's the BIG Idea?: Making Math and Science Come Alive for Children and Families in Your Library*. Chester, VT: Vermont Center for the Book, 2008.

Magnet activity found at: "Preschool Lab: Magnets." *Abby the Librarian*. http://www.abbythelibrarian.com/2013/10/preschool-lab-magnets.html. Accessed October 17, 2013.

Counting activity found in: McGowan, Diane and Mark Schrooten. *Math Play! 80 Ways to Count &Learn.* Nashville: Williamsonbooks, 1997.

Online Resources

You probably have great books in your collection that suggest ways to incorporate math and science into preschool programming. Navigating the multitude of online ideas can be more challenging, so here are a few starting points.

Websites

- **ICfL STEAM Resources.** http://libraries.idaho.gov/STEM-Resources
  Includes booklists, activities, and online resources for STEAM programming.
- **Scientific American: Bring Science Home.**
  http://www.scientificamerican.com/section.cfm?id=bring-science-home
  Weekly science experiments using household items. Updates every Thursday.
- **STEM Sprouts: Science, Technology, Engineering and Math Teaching Guide.**
  http://www.bostonchildrensmuseum.org/sites/default/files/pdfs/STEMGuide.pdf
  A PDF guide for teaching STEM concepts to preschoolers. Includes activities and talking points.
- **NRich.org Early Years Foundation Stage Activities.** http://nrich.maths.org/early-years.
  Supported by Cambridge University, the NRich project focuses on math skills for all age levels. Referenced site includes math activities.

Pinterest Boards

- Preschool Science Ideas. http://www.pinterest.com/emmavanstone/preschool-science-ideas/
- Preschool Science. http://www.pinterest.com/playtrains/preschool-science/
- Tot and Preschool Science. http://www.pinterest.com/pleasantest/tot-and-preschool-science/
- STEM in Preschool. http://www.pinterest.com/lalawolf/stem-in-preschool/