



Full Participation™ Science The Ernie and Mary Way!

Children are driven to learn by their curiosity and they will do everything they can to learn about what interests them at the time. One of the most exciting activities to do with young children is Science because, for those moments, children are the scientist performing the most delicate of experiments. Science, however, can be intimidating for adults. One of the definitions of Science is: "Knowledge, esp. that gained through experience," and, based on this, we believe children are learning from everything they do. Washing hands, making juice, and playing in the sand box with cups and funnels are just a few examples of Science occurring during the natural course of a child's day. From each experience, a child is taking away something they have learned successfully!

Tools, Tools, and more Tools!

Here are activities for children and adults together:

Make slides. Put a loop of wide clear tape (sticky side out) on a 3x5 card and sprinkle soil or sand on the tape. Or, put leaves, twigs, feathers, and other outside materials on it. Use a magnifying glass to examine.

Make your own cup magnifier! Cut 2 holes (big enough for children to put things in) in a 12 oz. or bigger paper cup. Put a piece of plastic wrap over the top of the cup and push it down slightly creating a bowl. Put a rubberband over the wrap and fill the "bowl" with water. Place a rock in the bottom of the cup and look through your magnifier!

Make a windicator. Make a lantern with construction paper. Attach paper streamers at the bottom and string at the top (so children can hold their weather tools) and go outside. Which way is the wind blowing? (Use a compass.)

WHILE DOING A SCIENCE ACTIVITY:

Get children talking and thinking about their experiments by asking open ended questions (i.e., "Tell me what you are doing." "What do you think will happen when I add salt to the water?" "Where did the salt (or whatever powder is being added) go?" "What are your reasons for doing it this way?" "What else can I do?"). The answers to these questions are neither right nor wrong; just a child's best guess based on what they are seeing, smelling, touching, hearing, and sometimes tasting.

Be prepared for a mess. Shower curtains on the floor are great protectors. Wet/dry towels, brooms, aprons or old shirts are great things to have at a moment's notice.

Invite other children to join. Learning is a social activity and when children are talking with peers about what they are doing, they are learning. One child will tell what he/she is doing, and then the others will want to do the same. We think the ideal number per group is three.

Make observations out loud. When a child is doing something out of the ordinary, we say "Scientists, Johnny is putting sand and salt in the water. I wonder what's going to happen." This gives children ideas to extend their learning.

Give children one thing at a time. At the beginning of an activity, put out only one material so children can focus on what they are doing. Add new materials or tools one at a time. This will keep children from being overwhelmed, eliminate some behavior problems, and extend the activity.

It's O.K. not to know! If you don't have an answer to a child's question, relax, take a deep breath, and turn the question back on the child. After they give you an answer, let them know your predictions and where you can go to find the answer. Children need to see how adults solve their problems so children will know how to do the same thing in their future.

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• WHEN YOU HAVE THE URGE TO TAKE OVER WHAT A CHILD IS DOING, COVER YOUR MOUTH,
• COUNT TO 10 SLOWLY, PUT YOUR HANDS IN YOUR POCKETS AND TAKE TIME TO THINK. IF
• SAFETY IS NOT AN ISSUE AND IT'S NOT CAUSING A PROBLEM FOR US OR ANYONE ELSE, WE
• LET CHILDREN EXPLORE IN ANY MANNER THEY WANT BECAUSE THIS EMPOWERS THEM TO USE
• THEIR CURIOSITY (THEIR MOST POWERFUL TOOL) AND MOTIVATES THEM TO ASK QUESTIONS
• THAT FUEL THE LEARNING PROCESS. WHILE THE CHILD MAY BE DOING SOMETHING THAT
• AN ADULT WOULDN'T, IT MAY BE JUST WHAT THE CHILD NEEDS TO "CEMENT" THE LEARNING.
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