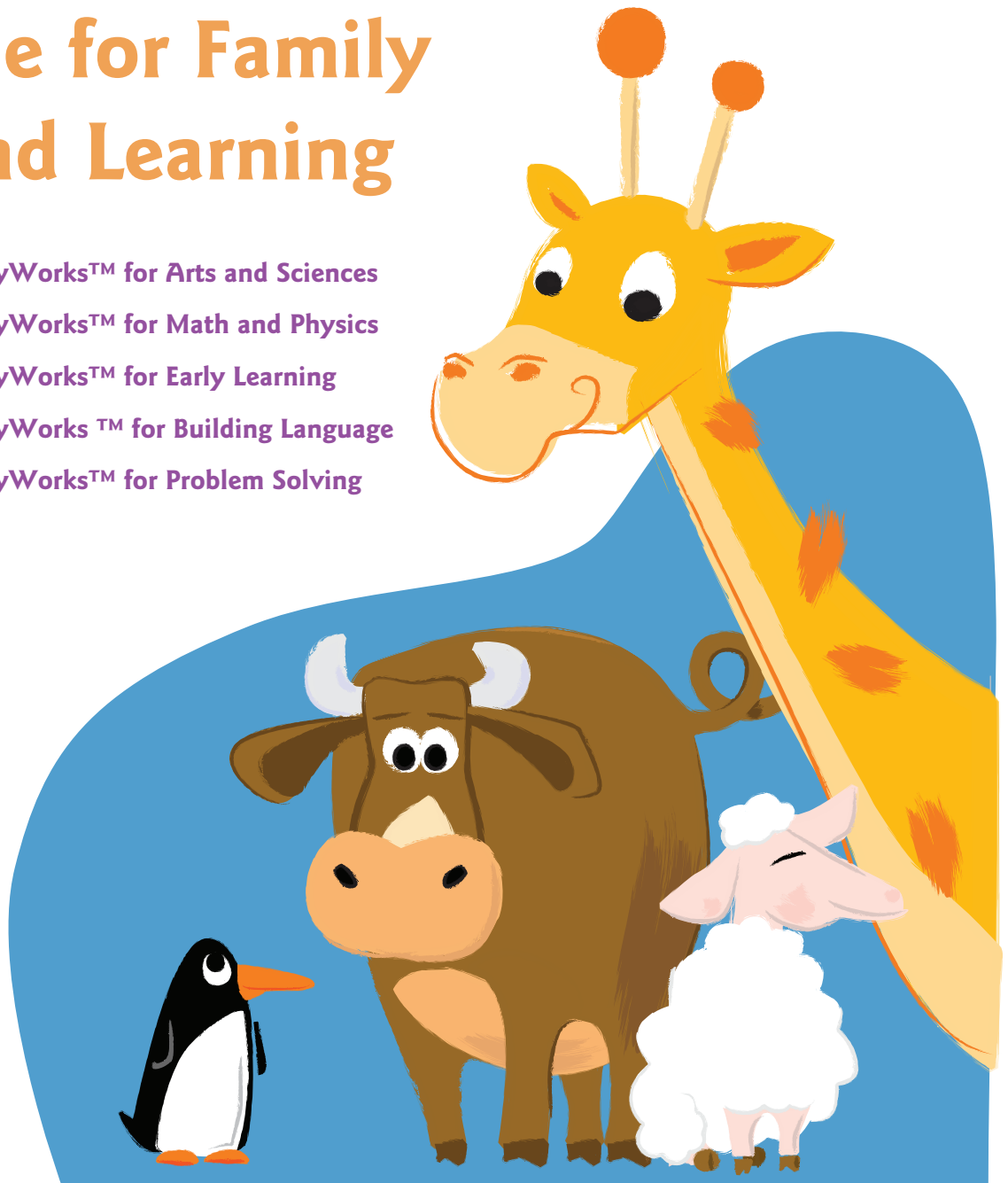




A Guide for Family Play and Learning

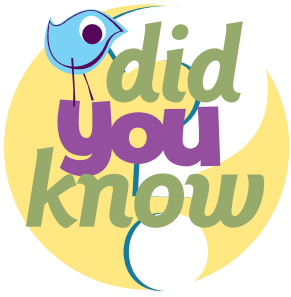
Contents PlayWorks™ for Arts and Sciences
PlayWorks™ for Math and Physics
PlayWorks™ for Early Learning
PlayWorks™ for Building Language
PlayWorks™ for Problem Solving



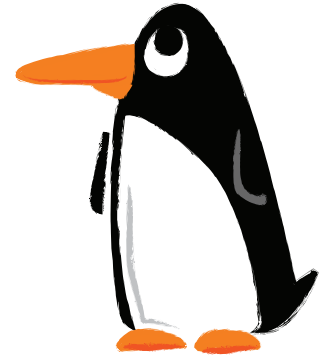
Parent handout created by the **Children's Museum of Manhattan**

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212-721-1223 WWW.CMOM.ORG ©2007 CHILDREN'S MUSEUM OF MANHATTAN

The Lab



Your child's brain has two sides—the linear left, and the creative right. Working with art materials helps them develop both.



Your Visit to PlayWorks™

As your child creates at the art table, they are:

- Exploring how different materials can be used to solve different problems.
- Developing their sense of touch, sight and smell.
- Processing three-dimensional information as they collage and sculpt.
 - Building self-confidence.
 - Learning to make independent decisions.
 - Finding their own artistic style.

As your child experiments and explores in Buckets of Science, they are:

- Learning key science concepts:
 - **Volume** – the area contained in a three-dimensional space
 - **Density** – the concentration of things within an area in relation to its size
 - **Measurement** – the size, length or quantity of something
 - **Weight** – the heaviness of an object
- Developing hand-eye coordination.
- Learning interpersonal skills. Practicing getting along with others.

As your child works at the light peg board, they are:

- Learning key math skills like counting, sorting, and pattern making.
- Learning to identify colors.

As your child looks at the Art Vocabulary Wall, they are:

- Learning to recognize and analyze visual information.
- Learning to see art in the world around them.
- Learning new words. Learning how to describe visual information.

While your child explores in the Lab, you can:

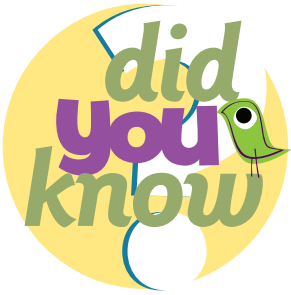
- Allow them time to explore and engage with materials at their own pace.
- Ask your child what they are doing in addition to what they have made.
- Support and observe their choices.
- Allow them to make their own choices.
- Allow them to take the lead.
- Help them pick a spot to “sign” their artwork.



I found that I could say things in color and shapes that I couldn't say any other way—things I had no words for. **Georgia O'Keefe**



Movers and Shakers



Your child has an intuitive ability to understand basic math concepts.

Math and language go hand in hand. Early math experiences help your child learn to build words.

Your Visit to PlayWorks™

As your child builds with blocks, they are:

- Learning key basic math skills—addition, subtraction, sorting, counting.
- Exploring how basic shapes fit together to create more complex ones.
- Learning to recognize and identify basic shapes.
- Developing a sense of spatial relations—how objects interact with each other in space.
- Developing an understanding of basic physics.
- Learning to compare and contrast volumes.
- Making their own choices and developing leadership skills.

As your child builds with the air tubes, they are:

- Seeing the basic properties of physics at work—first hand.

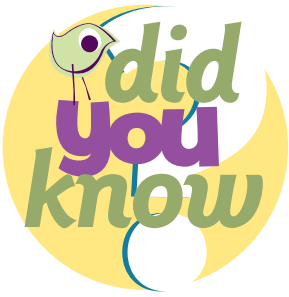
While your child explores in Movers and Shakers, you can:

- Help them uncover math in everyday play. Ask about the sizes and shapes of the blocks they're working with.
- Demonstrate the relationship between numbers and objects. Count blocks together as your child takes them out or puts them away.
- Ask problem-solving questions:
 - How did you do that?*
 - How did you figure that out?*
 - How could you do that in a different way?*
 - What will you do next?*



“ In order to be an inventor, you have to be able to imagine something first...before you can make it. **Fred Rogers** ”

Baby Steps



Your baby starts recognizing familiar words after just 12 weeks.

Responding to your baby's glances, gestures, and sounds helps stimulate their brain development.

Your Visit to PlayWorks™

What's happening as you play together

Look

Peek-a-Boo Mirror: Peek-a-boo games help teach your baby *object permanence*: that things still exist even if they can't see them. Playing these games helps build your child's sense of security about the world around them.

Listen

Laser Harp: Music and math are closely related. Listening to music together can enhance your baby's ability to learn math concepts.

Talk

Finger Painting Computer: As your baby "paints," they are developing fine motor skills and hand-eye coordination. They're also learning to understand the effects of their actions on the things around them, so talk about the colors and shapes you see as they "paint."

Observe

Wind Blowers: Talking to your baby as you watch the objects move around helps them to understand ideas of speed and motion: fast and slow; up and down; over, under, next to, and across.

Repeat

Crawling Challenge Course and **Ball Hoops:** Safe but challenging physical play helps your baby build muscles and strength, and to develop their balance: the groundwork for walking.

Sing

Lullaby Couch: As you listen to music and sing with your child, you are introducing them to the rhythm and patterns of regular speech. Mimicking your baby's sounds is an important way to let them know they're communicating with you. So keep practicing!

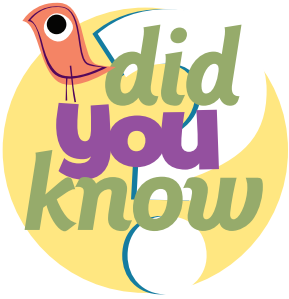
Read

Reading Area: When you read aloud to your child, you're building their passion to communicate, and fostering their intellectual and emotional development.



“When I approach a child, he inspires me in two sentiments. Tenderness for what he is and respect for what he may become. **Louis Pasteur**”

Alphie's Letter Garden



By age 3, your child typically understands 1,000 words — $\frac{2}{3}$ of the vocabulary they'll use in everyday conversations as adults.

Your Visit to PlayWorks™

As your child picks letters in the garden, they are:

- Learning to recognize letters.
- Learning that words are made up of letters.
- Understanding that words connect to pictures.

As your child feeds Alphie letters, they are:

- Building vocabulary
- Developing the idea that letters stand for particular sounds.



As your child “toasts” letters, they are:

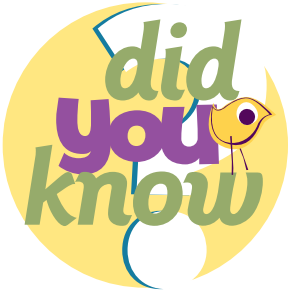
- Learning to enjoy being playful with language
- Becoming familiar with the sounds that particular letters represent.
- Learning that words are made up of letters.
- Learning that each word is made up of a particular set of letters.
- Becoming familiar with the basic rules of written and spoken language.

While your child plays in Alphie's Garden, you can:

- Encourage them to name the letters they recognize, and help them learn to identify the ones they don't.
- Make the connection between the sound made by the first letter in their name, and the sound of a vegetable with the same initial letter.
- Encourage them to experiment with letters, sounds, and the rules of language by creating groups of rhyming words. (Even nonsense words count!)

“ There are many ways to enlarge your child's world—love of books is the best of all. **Jacqueline Kennedy** ”

The Little Apple



Imaginative play builds social competence and confidence. Children who play together learn to communicate and solve their problems...together.

Exploring everyday activities through play builds your child's social, emotional, and problem-solving abilities.

Your Visit to PlayWorks™

As your child rides the Bus and drives the Fire Truck, they are:

- Learning to solve problems and work through challenges on their own.
- Developing self-control as they learn to share and take turns.
- Developing their sense of self and their relationship to others.
- Expressing their natural curiosity about the world.

As your child plays in the Deli, they are:

- Exploring key math skills such as counting, sorting, comparing, and categorizing.
- Using everyday interactions to build their language and communication skills.

As your child plays with the Fire Hose, they are:

- Enjoying the playful rhythms and rhymes of language and building key pre-reading skills

While you and your child play in The Little Apple, you can:

- Ask questions that help deepen their explorations:
 - Is there another way to do that?*
 - How did you figure that out?*
 - Where could you find out more about that?*
- Help them feel safe and supported while encouraging them to try new things.
- Allow them time to try things more than once.
- Be aware of their frustration level. If they get discouraged, lead them back to an activity they've mastered, then let them try the new one again.



Find the extraordinary in the ordinary. Kathy Hirsh-Pasek

