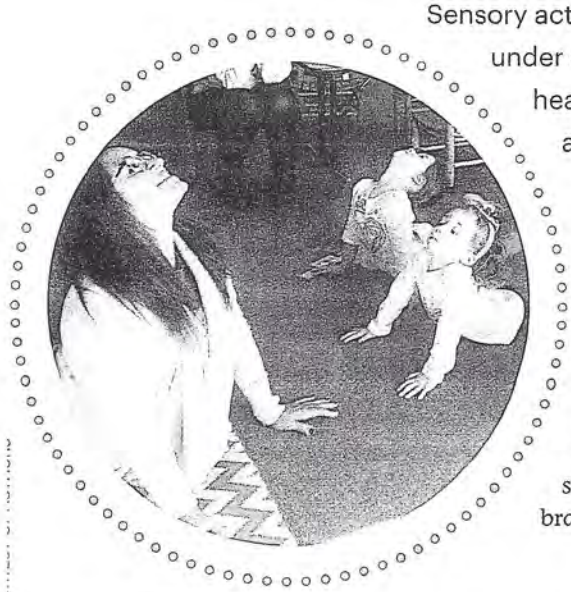
PHOTO © KAREN PHILLIPS

# Hands On! Promoting Sensory Activities

Kathleen I. Harris and Heather Fisher



Sensory activities are an important part of preschool classrooms—children under age 7 are most comfortable in a concrete world they can see, smell, hear, taste, and touch. Further, young children learn best when they are actively involved in their learning. As they use their senses to play, learn, explore, experiment, and interact with objects and people, those experiences will help them make sense of their world.

## Start each day with a stretch and a smile

Begin your day in the classroom in a new way! Consider leading yoga, morning stretches, or warm-ups to energize children and engage their brains. Have them reach for the stars, touch their big toes, and twist and bend side-to-side. Participating in daily exercises invigorates children's bodies and tells their brains that it's time to work and play.

**KATHLEEN I. HARRIS** is an associate professor of early childhood education at Seton Hill University, in Greensburg, Pennsylvania.

**HEATHER FISHER** is a special education teacher at Stanwood Elementary, in Youngwood, Pennsylvania.

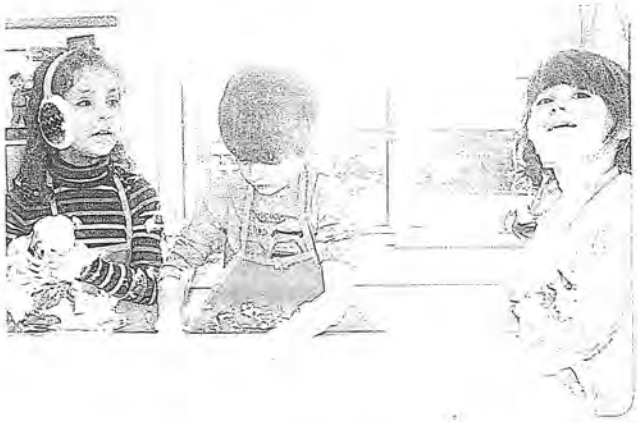
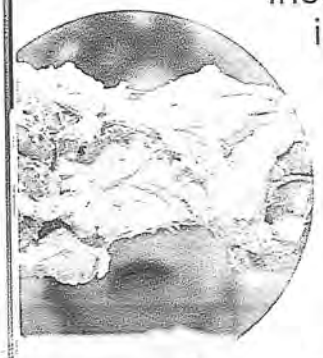


PHOTO © KAREN PHILLIPS

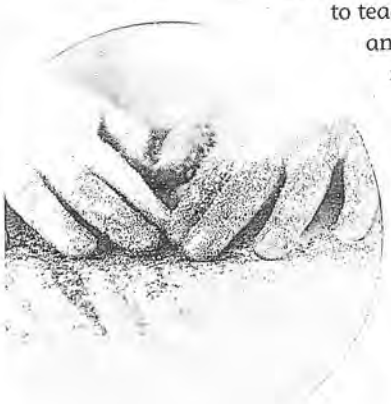
## Incorporate sensory activities into your learning centers



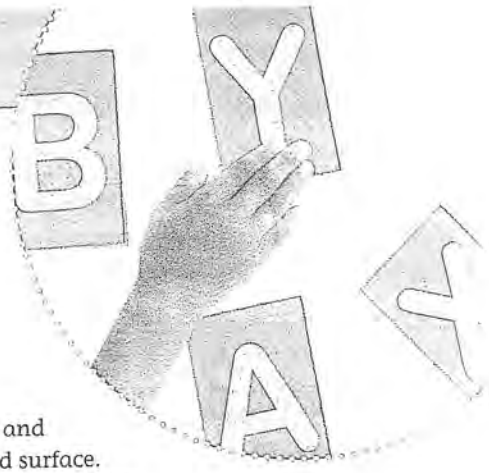
Include a variety of sensory learning activities where children can explore, manipulate, and investigate. Your sand and water table could feature shaving cream or a "messy, gooey" experience, like glue or homemade playdough. Add textured, open-ended materials (cardboard, wallpaper, fabric scraps, felt, paint) to the art center.

The manipulatives center could have activities that help children internalize basic concepts. For example, provide wet and dry items and materials with rough and smooth textures to help children learn about opposites. Design the classroom library center to be a calm and inviting space by adding beanbag chairs and pillows. Try offering fabric and touch-and-feel books, too.

## Include materials that have texture throughout the room



Blocks, puzzles, and beads are often used to teach basic skills like learning colors and practicing classification. Look for manipulatives that have texture, like Lauri puzzles, seashells, pom-poms, and bumpy beads. You can also create texture yourself by adding aluminum foil, puff paint, or sand to materials to turn everyday activities into sensory ones. Finger painting with sand is an entirely new experience!

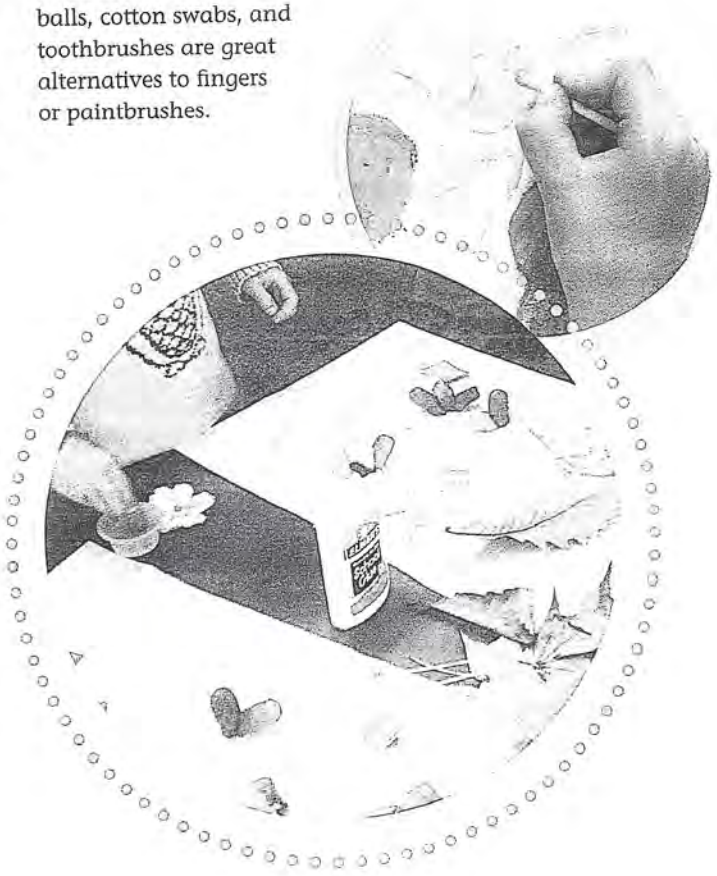


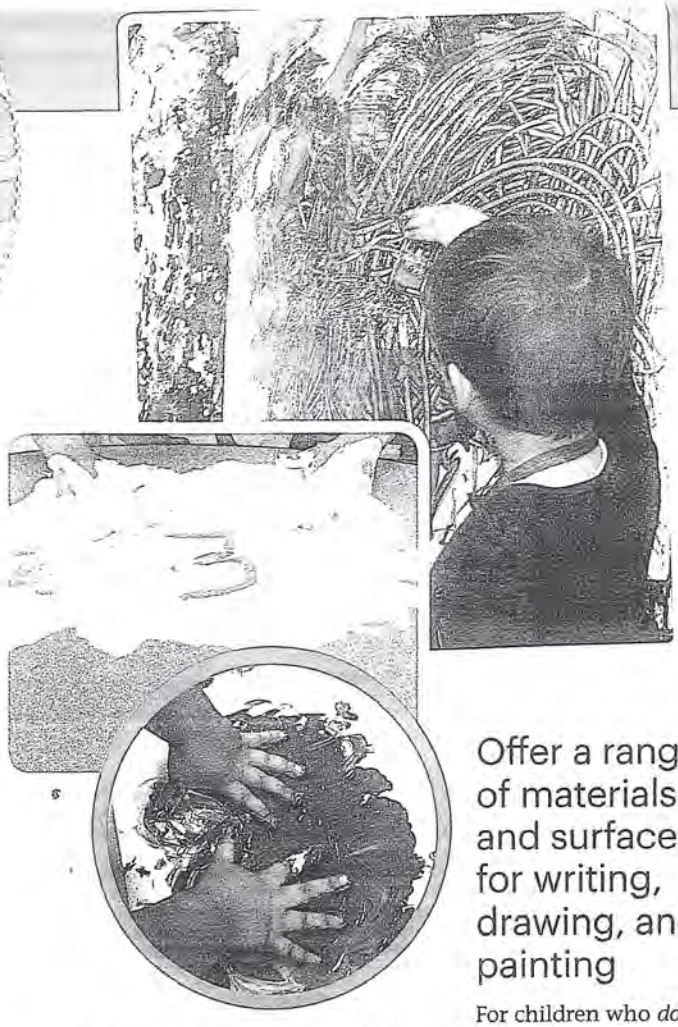
## Practice textured tracing

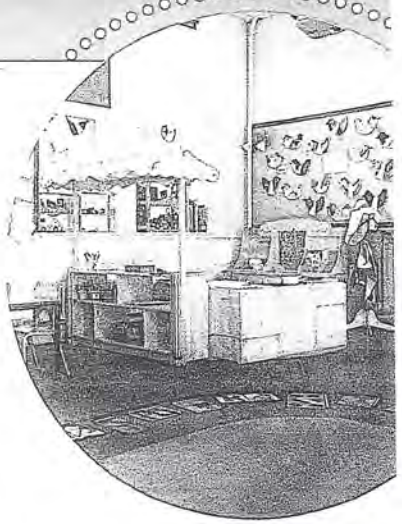
Introduce shapes and symbols, such as letters and numbers with a textured surface. Have children trace them with their fingers. Teachers can cut sandpaper, textured wallpaper, or carpet samples to make letters, numbers, and geometric shapes for children to trace.

## Add a variety of nontraditional open-ended art supplies and materials to your classroom

Some children might not be comfortable using materials with a particular texture, like the slipperiness of finger paints or the powdery feel of chalk. Offering a choice from many different supplies and materials helps children feel at ease and focus more readily. Cotton balls, cotton swabs, and toothbrushes are great alternatives to fingers or paintbrushes.







## Turn off the lights

Fluorescent lighting can be distracting and even painful for a child who has light sensitivity. The constant humming sound of lights can bother a child with hearing sensitivity. If the classroom has windows that allow in natural light, turn the lights off for a few classroom activities.

## Introduce a visual daily schedule

Showing a visual representation of a daily activity or routine—like a picture of a book for storytime or an apple for snack time—enables all children to follow the classroom schedule. This is especially true for children with developmental delays and children who are dual language learners. Break down routines into chunks, such as before and after rest time, or into smaller tasks, like circle time and playtime. When children know what to expect and what comes next, they feel less anxious about the unknown. Being relaxed will help them focus on the learning. **TYC**



## Offer a range of materials and surfaces for writing, drawing, and painting

For children who *do* like to touch paints, creams, and viscous liquids, invite them to practice writing letters and their names in shaving cream on tabletops or in finger paints on trays.


## Provide opportunities to paint, draw, and write standing up

Young children need practice with all muscle groups! Encourage children to stand and paint, draw, or write on a chalkboard, dry erase board, or easel. When children stand up to draw or to write on a vertical surface, they use different muscle groups than when they sit at a table.

# The What, How, and Why of MAKING

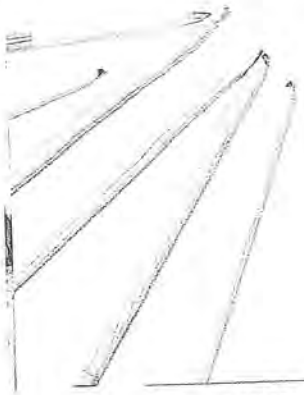
When it comes to introducing maker-based learning experiences in your classroom, you might think, "I just don't know where to begin." The good news is, making and high-quality early learning share many basic principles! Here are the what, how, and why of making to help you understand it and integrate it into your classroom and curriculum.

## 1 Learners engage in purposeful play

Making encourages learners to *tinker*—to "think with their hands." This means children explore, manipulate, and evaluate materials. They ask "what if" questions. By engaging in purposeful play, learners develop their own understandings of what things are and how they work.

## 2 Be comfortable with questions

In making activities, teachers don't need all the answers. Making is about questioning, wondering, experimenting, and learning. Teachers and students pose open-ended questions, wonder aloud about the possibilities, and point out interesting results. The best making activities don't have clear end points—they leave room for different results.



## 3 Everyone's a learner

In maker-based learning experiences, everyone is both a learner and an expert. This includes children, teachers, family members, caregivers, and classroom visitors who may be great sources of inspiration and information. Approach maker-based experiences as opportunities to learn something new—about materials, about processes, and, most important, about the children in your classroom.

## 4 Process over product

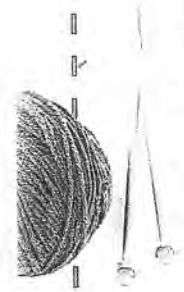
While making often involves the creation of something, the path to that something is where the learning happens. In fact, maker-based activities often do not end with a finished product. Instead, they encourage learners to tinker, to practice and gain fluency using a tool, and to explore properties—for example, attachment, or the way materials can be connected.

**LISA BRAHMS**, PhD, is the director of learning and research at the Children's Museum of Pittsburgh, in Pennsylvania.

**PETER S. WARDRIP**, PhD, is a learning scientist at the Children's Museum of Pittsburgh.

## 5 Combine content and curiosity

Maker-based learning experiences integrate the STEAM content areas—science, technology, engineering, art, math—and a child's imagination. By putting the learner and her questions at the center—along with materials and tools—children make natural connections to content. For example, teachers can link hand-sewing with needles (plastic or metal), thread, string or yarn, fabric, and lacing boards to math concepts such as counting, pattern making, and rhythm. A child may then use his imagination to take these ideas further. If the child moves from using a lacing board to attaching two pieces of fabric together to make a puppet for dramatic play, the teacher can highlight those content connections. For example, the teacher can listen to and write down the story the child creates for his puppet. This both honors the child's intentions and furthers the child's learning.



## 6 Try again

Mistakes—small and large—are a big part of making. Children need to persist and use different approaches to solve a problem or make progress on an idea. Learners practice refining, fixing, and building on their previous work to better realize their intentions. Celebrate small successes and consider mistakes opportunities to try again and learn something new.

## 7 Dwell in possibility

Among children's greatest strengths is their ability to imagine what is possible. To a child, a wooden block can become a car, or a stick can become a magic wand. Possibility is fundamental to making, and the root of invention and innovation.

## 8 Construct understanding

Making creates the conditions for children to construct their own knowledge. It gives children concrete projects to talk about and explain to others—something they've made or something they're working on, like a toy they're taking apart or cardboard shapes they're gluing together.

## 9 Children make personal pathways

Young learners are at the center of maker-based experiences. Through making, children are empowered to determine the materials, tools, and processes they use. Encourage children to make their own choices about their explorations and projects, which are always based on the children's interests and intentions.

## 10 Go for it!

The most important step is to simply begin! There is no need for high-tech equipment or lots of money. A recycled cereal box can inspire great making as much as a 3-D printer can. All you need is the willingness to try, a belief in yourself and the children, the motivation to learn, and the courage to share.

**RESOURCES**

Children's Museum of Pittsburgh's MAKESHOP Blog: makeshoppgh.org

Exploratorium's Tinkering Studio: tinkering.exploratorium.edu

Maker Education Initiative's Youth Makerspace Playbook: makered.org

D School at Stanford University: dschool.stanford.edu

Invent to Learn: inventtolearn.com