

Sonic Sensation exhibit opens at the Kohl Children's Museum

By Nancy Maes, Special to the Tribune

March 28, 2012



Children learn to make the sounds of animals and vehicles, and they learn the difference between their indoor voices and the whoops and hollers, screeches and yelps they can make outdoors; the difference between a soothing lullaby and the scary sound of thunder that hurts their ears.

Now a new traveling exhibit, Sonic Sensation, at the Kohl Children's Museum, reveals some of the underpinnings of the sounds in their lives.

"First we had to get the science right, so we talked to local professors at Cornell University to do our research," says Tim Scott, director of exhibits at Sciencenter in Ithaca, N.Y., where the exhibit was developed. To create an activity that explains how we hear, Scott's team took their inspiration from the kinetic desktop device with a series of swinging globes called Newton's Cradle.

In the exhibit kids can pull back a small suspended ball and release it to hit other balls to create a chain reaction that shows how sound waves striking the eardrum send electrical signals to the brain.

Kids can also hit the different keys of a xylophone in front of a microphone and observe how the squiggly lines that the sound waves create on an oscilloscope differ between higher- and lower-pitched notes. In another activity, youngsters varying the amplitude and frequency of sound coming out of speakers see how they can make the patterns of little blue puffs of foam inside a clear tube seem to dance like graceful insects sometimes and at other times jitter like manic bugs.

To test their listening skills, kids can shake a series of tubes filled with different kinds of materials to find ones that are identical. "We went to the storage room of our education department and tried all sorts of things used for crafts to put in the tubes," Scott says. "Paper clips didn't work because they tend to get all tangled up. We used bolts that are easy to match, but it's hard to distinguish between certain types of beads and rice." He adds, "It's a kind of memory game that shows that you can remember sounds."

Critters in a Cupboard, which is a kind of hide-and-seek that is easy enough for preschoolers to play, requires a partner. One person hides a replica of a kitten or a cricket in one of a series of small cupboards where the former starts to meow and the latter to chirp. The other person has to listen carefully and find the cupboard where the critters are hiding. The game brings squeals of joy from little ones, who react as though they've won the jackpot on a TV game show when they open the right door.

Kids can also create a soundtrack for snippets of silent films of such things as a moving train, a rushing river or a farm by pushing buttons to add background noise or individual sounds such as flowing water or the moo of a cow. The object is to create a realistic soundtrack, but kids can also feel free to use their imaginations to make silly, mismatched sounds like a train that quacks, because both are ways for them to discover how sounds can help set a mood.

Kohl's president Sheridan Turner says, "We like this exhibit because of the science embedded in it and because it also brings in various elements of language, such as pitch and frequency, that are concepts that are difficult to explain and it helps children's matching skills, which are very important in math learning. It also gives children the opportunity for some imaginative and creative play and heightens their awareness of the sounds around them, like the ones they hear when they go to bed at night."

Sonic Sensation

When: Through May 10

Where: Kohl Children's Museum

2100 Patriot Blvd., Glenview

Hours: 9:30 a.m.-noon Monday; 9:30 a.m.-5 p.m. Tuesday-Saturday, noon-5 p.m. Sunday

Admission: \$9.50 adults and children

More information: 847-832-6600; kohlchildrensmuseum.org

<http://www.chicagotribune.com/entertainment/ct-ent-0329-museums-sonic-sensations-20120328,0,6911161>.