

MathCore for Museums

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The Science Museum of Minnesota in Saint Paul, Minnesota; Museum of Science in Boston; North Carolina Museum of Life and Science in Durham, North Carolina; Explora in Albuquerque, New Mexico and the Center for Research in Mathematics and Science Education at San Diego State University are collaborating with TERC to create a set of math exhibits for use in science centers and museums. *MathCore for Museums* is designing, installing and studying a collection of math exhibits to be used in the four partner museums that will introduce algebra—through the topics of ratio and proportion—to children ages 6-12. These exhibits will support children to interact experientially with fractions, similarity, scaling, and percentages to build their mathematical foundation for middle and high school mathematics courses.

The MathCore study relies on an *engagement-capacity-continuity continuum* to examine children's interactions to determine how their interest in the activities and understanding can be bolstered through multiple visits over several years. While museums traditionally concentrate on developing exhibits that primarily focus on visitor 'engagement', project researchers are developing creative ways for youngsters to solidify necessary math skills over time ('capacity' and 'continuity') and situate them in interactive, out-of-school settings to increase interest in the STEM fields.