

## **Asheville Art Museum**

Asheville, North Carolina

**Category:** Museum Education; Teacher Training; Arts Integration; Curriculum Writing

Erika Sanger, the Curator of Education at the Asheville Art Museum, had been looking at the work of Josef Albers in the Museum's collection and thinking about connections between his artwork and the North Carolina Standard Course of Study for Mathematics. With less funding available for arts programming for its own sake, Erika had already begun to look for new approaches to education at the Museum. Why not offer young people an understanding of art that would also help them understand math? "When you begin to see numbers as puzzles and patterns instead of just numbers, they make sense," she realized.

In the 23 counties of Western North Carolina, you'll find only one visual art museum that serves them all: the Asheville Art Museum. The mission of the Museum is: "to collect, preserve and interpret American art beginning in the 20<sup>th</sup> century," particularly "the rich cultural heritage of Western North Carolina." For over half a century, the Museum has "served the communities with quality exhibitions, community outreach projects that address pertinent local issues and innovative programs that showcase excellence in the visual arts and stimulate the creative spirit."

Okay, so most people don't think of placing "the creative spirit" and "math" in the same sentence, but Erika did, and clearly renowned artists Josef Albers, Anni Albers and Beatrice Riese did, too. They saw the beauty in geometry, the elegance of angles, the purity of polyhedrons. What's more, the works of these artists provided a natural lead-in to understanding the many elements of geometry and measurement.

A few more integers were needed to make this equation balance. First, Erika contacted Randy Harter, the Math Specialist for the Buncombe County Schools. After they met several times, Randy contacted Dr. Grayson Wheatley, Emeritus Professor of Mathematics Education at Florida State University, and brought him in to the planning team. Dr. Wheatley's research focuses on how building visualization skills builds mathematics skills; and his publications center on the way teachers can use problem-centered learning in the classroom. The project team used their joint expertise to help students understand the connections between math and art.

The final elements of the equation were two members of the Education Department of the University of North Carolina at Chapel Hill and six Buncombe County teachers. With the collective energy of the assembled team, the Museum found a way to use its collection to create a hands-on program that would help 3<sup>rd</sup>-5<sup>th</sup> graders learn the math and visual arts goals of the North Carolina Standard Course of Study in a non-standard way. Over the course of months, the team developed the program, tested and tweaked it until they were ready to try it out.

Now teachers spend a day at the Museum in a workshop, learning how to make math visual, then bring what they've learned—along with workbooks and posters for the students—back to their classrooms. The posters feature the artwork of mathematically minded artists Riese and the two Albers. When teachers return to the Museum with their students for hands-on math/art experiences, the kids see math in a whole new way. They examine works of art (including those they've studied on the posters in their classrooms), solve problems, draw, and create their own works of art using geometric principles.

At the end of its first year of implementation, *More Than Math* included over 65 classroom teachers from three different school systems. The program has made a believer out of Buncombe County teachers. As one excited teacher says: "You can almost watch them shift from right brain to left brain and back again!" Now nine activities, an on-line gallery, and a program description for *More than Math* are available on the web.

**Asheville Art Museum:** [www.ashevilleart.org](http://www.ashevilleart.org)

**More than Math:** [www.morethanmath.org](http://www.morethanmath.org)

**NC Standard Course of Study at NC Public Schools:** [www.ncpublicschools.org](http://www.ncpublicschools.org)