
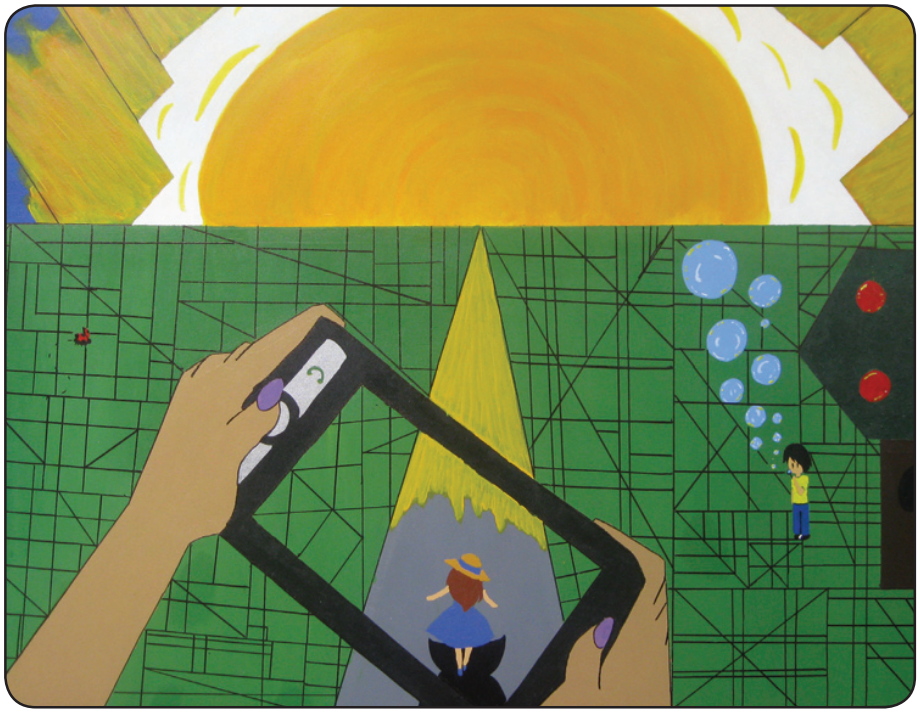

## Geometric Mural Project

Lauren Niehaus, Math/Science, High Tech High Chula Vista

Students experienced the beauty of math by creating murals using specific geometric shapes. They prepared a proposal, including a blueprint, a to-scale colored miniature, a business letter describing their work, and an estimated budget. Student groups presented their work to a selection committee at Qualcomm, Inc. Qualcomm then chose the winning mural designs, which the students painted at full scale as a class.

### Teacher Reflection

Geometry and art are deeply interconnected disciplines. Repeating simple geometric patterns over and over again can create astonishingly beautiful results, as in the famed mosaics of Moorish Spain. And geometry is a crucial ingredient in more conventional artwork, used to create a sense of perspective or of balance. This project helped students to appreciate both the beauty of mathematics (by incorporating geometric shapes into their designs) and its practical value (by estimating, for example, the amount of paint needed to implement their designs).

Qualcomm provided financial support and gave students a serious professional challenge: presenting their work and ideas in front of a large, unfamiliar audience. Watching student after student speak with clarity and confidence was exhilarating—one of my proudest moments as a teacher.

### Student Reflection

This project broadened my horizons on geometry and art. It opened my eyes to how two different subjects come together every day. The main thing I learned was leadership. I learned how to communicate with my group members, and how to delegate work evenly. We were able to showcase our creativity and learn about geometry, art, and business through our relationship with Qualcomm.

—Rayna Kim, 10th grade

To learn more about this project and others visit www.hightechhigh.org and Lauren Niehaus's digital portfolio at http://staff.hthcv.hightechhigh.org/~lniehaus

Graduate School of EDUCATION