

Curriculum Units by Fellows of the National Initiative 2010 Volume IV: The Mathematics of Wallpaper

Putting the Pieces Together

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Putting the Pieces Together is a unit designed to teach third graders about the mathematical concept of symmetry. This unit can be adapted for other grade levels as well. Students get the opportunity to learn about symmetry through a five week unit. Two or three lessons are presented each week. Instruction will be given in whole and small group settings. Students work in cooperative groups, pairs, and on their own. Each lesson takes about 45 minutes to complete. Students receive a hands-on math experience. I integrate math with language arts and art. For the language arts component, I read math related picture books. Students discuss these books and apply the information to the math lessons. Art is immersed throughout the unit; students create a lot of different symmetrical designs and projects. At the end of the unit, students will be able to identify lines of symmetry found in different objects. They will be able to tell the difference between the types of symmetry on frieze patterns, such as rotations, reflections, and glides. Students will be able to effectively communicate their knowledge of symmetry to others. Students learn how symmetry is all around us in nature, architecture, and art.

(Developed for Math and Symmetry, grade 3; recommended for Math and Symmetry, grades 2-5)

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