

Exploring Radial Design

by Stephanie Spruce Leonard


We began the lesson on radial symmetry by looking for examples of radial design in nature, and mandalas created by people in many different parts of the world, including Native American, Celtic, and Asian cultures, and the rose windows in great European cathedrals. Several class sessions were devoted to using rulers and compasses for measuring and drawing both straight and curved lines to create a variety of circular, geometric designs with radial symmetry.

Students shared their practice drawings and we compared them to images of rose windows and other stained-glass designs. Then I pulled out my box of old compact disks and challenged students to think of the shiny reflective side as being the glass in a miniature circular window. Their job was to transform the CD into a miniature rose window.

Students chose an old CD and wiped it clean. Using a ruler, they carefully divided the surface of the shiny side into eight equal sections. Fine-tipped markers work best for fine detail. Compasses were used for curved lines.

Students used a black permanent marker to outline their window designs, being careful to repeat motifs and symbols in a symmetrical way. Colored permanent markers were used to color in the shapes. Leaving some of the shiny surface of

the CD showing in the design gave the finished pieces the look of real glass, but it also let some of the beautiful rainbow reflection show through. Some students cut small paper circles to cover the hole, but others liked the idea of an opening in the center.

The finished designs were glued to squares of mat board for display. Roughing up the back surface with sandpaper made it possible to use white glue, but a hot glue gun can also be used. 

Resource

Bartfeld, Martha. *Mandala Design*. Dover Publications, 1977.

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WEB LINK

www.princetonol.com/groups/iad/lessons/middle/Larry-radial.htm

www.myschoolonline.com/page/0,1871,6775-205612-4-76239,00.html

NATIONAL STANDARD

Students use different media, techniques, and processes to communicate idea, experiences, and stories.

