24 Magic Squares

Grade Level
4-6

Concept
The artist can make many colors in between the primaries and secondaries.

Skill
Mixing watercolors to attain intermediate colors.

Resources
Composition by Paul Klee (Pawl Clay)
Color Wheel

Materials
Watercolors; brushes; containers of water;
12 x 18-inch white paper; pencils; newspapers.

Procedure
Examine the Klee painting and comment that the artist made many such paintings to explore what a basic set of colors could produce. He began by putting one pure hue near the center of a grid, then mixed that color with one, two, or three others for each of the other squares. Also, compare Klee’s nonobjective work with the realistic and abstract paintings of mountains. Study the color wheel and identify the primary, secondary, and intermediate colors.

Have the students place a drop of water on each color in the paintbox to soften the pigments. They will use pencils to divide the paper freehand into squares and rectangles. Younger children may use crayons; the waxy lines will keep the colors from running into one another. The students will choose one color to use straight from the paintbox to paint one square near the center. Every square painted thereafter must be made by double-loading the brush, rolling it in one color and tipping it in another, or triple-loading. Instruct the students to blend the colors on the paper, filling squares randomly, and to make sure a painted square is quite dry before working on an adjacent one to avoid bleeds. Have them balance bright and dull colors around the grid. Observe the effect of each mixture and also the way that each contrasts with its neighbors.

This is a painting called Composition by the Swiss artist Paul Klee. This is from his series called Magic Squares. This painting is called nonobjective, meaning that the subject matter is not recognizable, like trees, flowers, or people. The subject is shapes, color, and composition. Klee used squares and rectangles in this composition and painted them with primary and intermediate colors. Notice how he created balance in the painting by randomly placing bright and dull colors in his composition.

These works will help you identify the different styles of art called realistic, and abstract. At left is a realistic painting of mountains in winter: The objects and figures are easily identifiable. To the right it is a collage of mountains in winter: This is an abstract work, a style that emphasizes design and simplifies form. Now you can see why Paul Klee’s work is called nonobjective, because the subject matter is color and the composition of different shapes.
2. This color wheel shows the primary colors (P) and secondary colors (S) and the intermediate colors in between that can be made by mixing them. You will be using these intermediate colors in this activity called “Magic Squares.”

3. Look at resources that show the use of intermediate colors. The colors created can be warm, cool, and neutral. 
   
   **Warm colors** are reds, oranges, and yellows. 
   **Cool colors** are blues, greens, and purples. 
   **Neutral colors** are black, white, and brown.

4. Divide your painting paper into a grid of geometric shapes.

5. Select one pure color directly from the watercolor paintbox to paint a shape near the center of your paper.

6. Then paint in other shapes by double-loading the brush — rolling it in one color and tipping it in another. Try triple-loading the brush too.

7. Paint the shapes randomly, balancing bright and dull colors around the grid.

8. Observe the effect of each color mixture and also the way that each contrasts with its neighbors.

9. Here is completed student “Magic Squares” painting. What kinds of colors do you see in it — warm or cool? Is there a balance of bright and dull colors? Can you see why Paul Klee was interested in exploring the intermediate colors?