

Math in Art

Grades: 5 +

Length of program: 50 minutes - 1 hour, adjusted as needed

Requirements: screen or blank white wall in a room that can be darkened

Program Description:

For many students, art and its creation appears remote from the rules found in the study of math. This exploration suggests to students that math can be used creatively to communicate, and that math informs virtually every aspect of our lives. The program accommodates visual learners, who may better understand abstract concepts when presented in visual form. This approach may also illustrate a visual approach to problem-solving in general, a skill that may then be tied to mathematical problems. Program can be adjusted to accommodate various content levels.

Goals:

- To identify mathematical concepts in works of art
- To gain an increased understanding of mathematical concepts and principles by seeing how artists apply them to the creation and composition of works of art
- To trace the development and historical background of the uses of perspective in art.

Rationale: Do math and art add up? They may seem like odd partners, but in reality, artists have been using mathematical concepts since ancient times. This tour explores the connection between art and math. From religious paintings to abstract sculptures, math solves compositional problems.

Topics:

- Concepts and use of line, shape, form, pattern, symmetry/asymmetry, proportion, scale
- Mathematical concepts as the building blocks of composition.
- The historical development of perspective in two and three dimensional artworks from the Renaissance to contemporary art
- Expressive potential of mathematical concepts in works of art
- The visual solutions that derive from mathematical concepts – how the artist directs us to see depth, a focal point, volume, etc.

To Schedule:

Initiate a program request online or call Phoenix Art Museum's Program Coordinator 5 weeks in advance of your desired program date at (602) 257-4356.