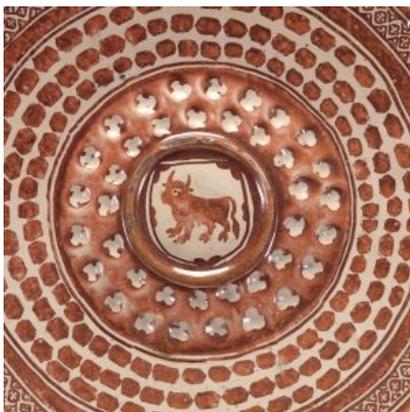


Gallery Hunt: Artistry and Geometry

What do artists and mathematicians have in common? Find these artworks in the VMFA galleries to explore how artistry and geometry work together in fascinating ways!

Grade Level:	Grades 6-8, Grades 9-12
Collection:	African Art, Ancient Art, Decorative Arts after 1890, European Art, Modern and Contemporary Art, Native American Art, South Asian Art
Subject Area:	Math, Visual Arts
Activity Type:	Gallery Guides & Hunts



1

Byzantine Galleries, Level 2 Decorated with intricate arabesque geometric and floral patterns, this platter features the coat of arms of the family for whom it was made. Look at how the pattern is organized. What would the artists need to know about a circle to decorate the platter this way? Imagine you were to decorate a plate similar to this one. What would be your first step? Where would you go from there?



2

Native American Galleries, Level 2 This beautiful coiled basket made by the Maidu people of the Sierra Nevada mountain range features 120-degree rotational symmetry. Can you identify the lines of symmetry? Consider the basket above this one in the case. How is the symmetry similar, and how is it different?



3

Evans Court, Level 2 Tessellating triangles dance across the edges of this colorful mural painted by the most renowned artist of South Africa's Ndebele people. Like the bold geometric designs traditionally painted on the exterior of rural Ndebele homes, this mural has many lines of symmetry. How many can you find?



4

African Galleries, Level 2 An important part of a Kuba king's regalia, this object reveals the artist's mastery of geometric patterning. How many different polygons can you identify in this complex patterning? How do they relate to one another? Can you find examples of congruence or similarity? What about instances of rotation, translation, or dilation?



5

Ancient Galleries, Level 2 On this Ancient Greek vessel, known as an Amphora, two Trojan heroes play a game while a goddess stands nearby. Framing these figures are patterns characteristic of vases made in ancient Athens. Which patterns do you see that are symmetrical? Ancient Athenians often filled amphora like this one with olive oil and awarded them to victorious athletes. How might we calculate the amount of oil this amphora could hold? What might you need to measure to make a calculated guess?



6

Mid to Late 20th Century Galleries, Level 2 Each layer of this monumental sculpture is made through repetition of the cube seen in the top layer. The second layer has 8 cubes, and the third has 27. Can you guess how many the 6th layer has? If you were to build an additional seventh layer, how many cubes would you need?



7

Lewis Decorative Art Galleries, Level 3 Once found in the now destroyed Imperial Hotel in Tokyo, this chair was designed by the hotel's architect, Frank Lloyd Wright. The forms in the chair echo those of the ceiling in the hotel's Peacock room. Note the back of the chair. How did Wright use line and shadow to make a polygon look like a different three-dimensional shape? What could you do to alter the orientation of this isometric cube?



8

South Asia Galleries, Level 3 This elegant structure was made in India in the 19th century and once adorned a garden in Rajasthan, India. Here at VMFA, we can admire its beautifully carved white marble and inlaid schist (dark stone) while contemplating the workmanship and artistry needed to erect it. Imagine you were one of the artisans building this pavilion. How might you quickly and accurately decide how many marble octagons to cut for the floor? What information would you need to do your calculations?

IMAGES (as details)

1

Charger with Hispano-Moresque Decoration, 1525-50, Spanish, lusterware, Arthur and Margaret Glasgow Fund

2

Gambling Tray, 1890, Maidu, Willow, redbud, Robert and Nancy Nooter Collection

3

ibala leSindebele, 2014, acrylic on linen, Adolph D. and Wilkins C. Williams Fund

4

Kweemishaam'l, Wisdom Basket (translation), Kuba, 19th - 20th century, raffia, cane, cowries, glass beads, copper, Adolph D. and Wilkins C. Williams Fund.

5

Black-Figure Neck-Amphora, Attributed to the, Leagros Group, ca. 510 B.C., Adolph D. and Wilkins C. Williams Fund

6

1 2 3 4 5 6, 1978, Sol LeWitt, American, 1928 - 2007, Painted wood, Gift of the Sydney and Frances Lewis Foundation

7

Chair (for Imperial Hotel, Tokyo, Japan), designed ca. 1921, made

ca. 1930, Frank Lloyd Wright, American, 1867 - 1959 (Designer),
Attributed to, Matthews Brothers Furniture Company
(Woodworkers), oak, upholstery, Gift of Sydney and Frances
Lewis.

8

Garden Pavilion, 19th century, white marble with black schist
and brown mottled marble inlays, Adolph D. and Wilkins C.
Williams Fund.