

Fernbank exhibit explores patterns in nature—and features amazing maze

BY KATHY MITCHELL
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Patterns in nature are all around but may go unnoticed by those not paying careful attention. A current exhibit at Fernbank Museum of Natural History, *Numbers in Nature*, calls attention to what it describes as “real examples of patterns in objects from the natural world.”

“From the delicate nested spirals of a sunflower’s seeds to spots on a giraffe, guests will discover a unique—and sometimes puzzling—perspective of our daily surroundings,” the museum’s introduction to the exhibit states. “Interactive elements throughout the exhibit allow for hands-on learning to understand that math is all around us in everyday life, revealing the beauty of our world through numbers.”

Mathematical patterns are “hiding in plain sight throughout the natural world,” according to an exhibit panel, which states, “We walk, breathe, hear, and even sing with patterns every day. They are inside us, surround us, and connect each of us to nature.”

Math is the language of nature, the exhibit notes. “Patterns are clues to how nature works in wildly diverse situations, from weather systems to spider webs. You can use words or shapes to describe patterns generally, but to describe them exactly, use numbers.”

The exhibit notes four types of natural patterns. The first is spirals, which it says, “are clues to how things grow, expand or respond to physical forces. They can describe the shape of an object or a phenomenon like a hawk circling its prey.”

Another is the “Golden Ratio,” which the exhibit calls “one of nature’s most common ratios. It shows up in the number of petals in a flower and the proportions of our own bodies.”

Voronoi patterns, which the exhibit illustrates with

pictures of the kernels on an ear of corn and a honeycomb, “provide clues to nature’s efficiency: the nearest neighbor, shortest path and tightest fit.”

The other pattern, which may appear not to be a pattern at all, is fractals. “Many things that look random or irregular can be described mathematically by a fractal pattern,” according to the exhibit. “Fractals emerge from repeated rules: a tree branch divides into two more, and so on. Many repetitions mean that the fractal shape looks similar no matter how much you zoom in or out.”

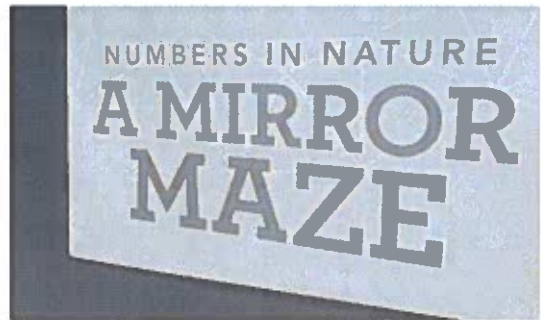
The same patterns that appear elsewhere in nature also show up in the human body, the exhibit points out. “Your body is a part of nature. It is subject to nature’s basic rules, such as making the most with the least. Your body also adapts to its environment. This dual influence—physical law and adaptation—gives rise to diverse and beautiful patterns. ...From skin cells to skeleton, your body is patterned.”

The exhibit also explores how manmade structures are inspired by the patterns in nature. In architecture, for example, “Patterns appear in cultures both centuries and miles apart, from Greek temples and Middle Eastern minarets to French post-war housing and Olympic stadiums. Spirals, fractals, the Golden Ratio, and Voronoi patterns play inspiring roles in the places and spaces we create.... Formal, fun, straight, or skewed: patterns give buildings their character.”

Perhaps the most popular feature of the exhibit, judging from the long lines, is what Fernbank calls “the crown jewel of the exhibit,” an elaborate mirror maze in which “guests can explore and navigate a seemingly infinite repeating pattern of mirrors.” As visitors make their way through the maze, they are left to wonder “Is this a continuation of the path or

a reflection?”

Numbers in Nature will be on exhibit through Sept. 9. Fernbank Museum of Natural History is located at 767 Clifton Road NE in Atlanta. For more information, visit fernbankmuseum.org.



The exhibit *Numbers in Nature* at Fernbank Museum of Natural History tells the story of mathematical patterns “hiding in plain sight” in nature.



DeKalb County Homelessness Continuum of Care FY 2024 and FY 2025 Continuum of Care (CoC) Local Program Competition Begins August 16, 2024

The DeKalb County Continuum of Care (CoC) announces its FY 2024 and FY 2025 Local Continuum of Care Competition. Applications, local guidelines, and review/scoring criteria for new and renewal projects will be posted on the DeKalb County website at <https://www.dekalbcountyga.gov/community-development/public-notices> beginning Friday, August 16, 2024. New project applicants and applicants with experience serving homeless individuals, families, youth, and survivors fleeing Domestic Violence or Human Trafficking are encouraged to apply. Prior CoC award is not a requirement for funding consideration.

DeKalb CoC must receive all CoC local applications by 4 PM on Friday, September 6, 2024.

All agencies interested in obtaining additional information regarding this funding opportunity are invited to attend a virtual FY 2024 CoC NOFO Information Meeting on Wednesday, August 21, 2024, at 2:00 PM – 3:30 PM.

Join Zoom Meeting

Meeting URL: <https://dekalbcountyga.zoom.us/j/85826441560>

Join by Telephone

Dial: USA 602 333 0032
USA 888 270 9936 (US Toll Free)
Conference code: 150337
Find local AT&T Numbers: <https://www.teleconference.att.com/servlet/glbAccess?process=1&accessNumber=6023330032&accessCode=150337>

Please email questions to DeKalbCoC@dekalbcountyga.gov or call DeKalb County Community Development at 404-371-2727.

The DeKalb CoC announcement is in response to the U.S. Department of Housing and Urban Development’s (HUD’s) notice of its “FY 24 and FY 25 Continuum of Care Competition and Renewal or Replacement of Youth Homeless Demonstration Program Grants”. The full notice from HUD is posted at FY 2024 and FY 2025 Continuum of Care Competition and Renewal or Replacement of Youth Homeless Demonstration Program Grants (hud.gov)