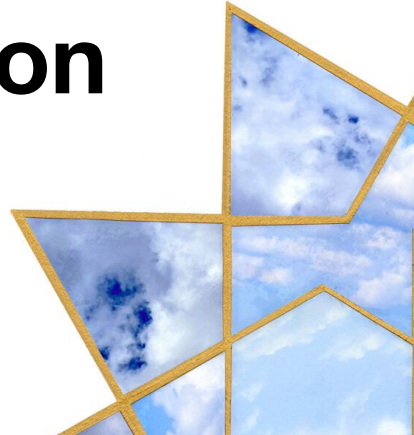


# **“I Will Show Up”**

## **Community Engagement as a Path to Mathematical Connection**

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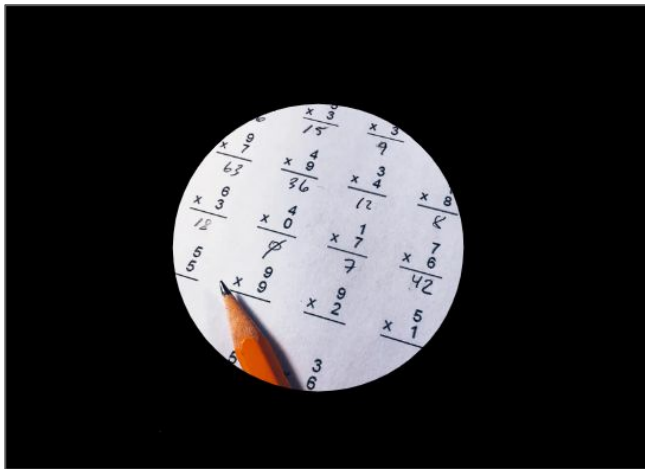
The Lotus Shalizi

Every day as the sun rises, women in South India step outside their homes to decorate the streets outside their homes.

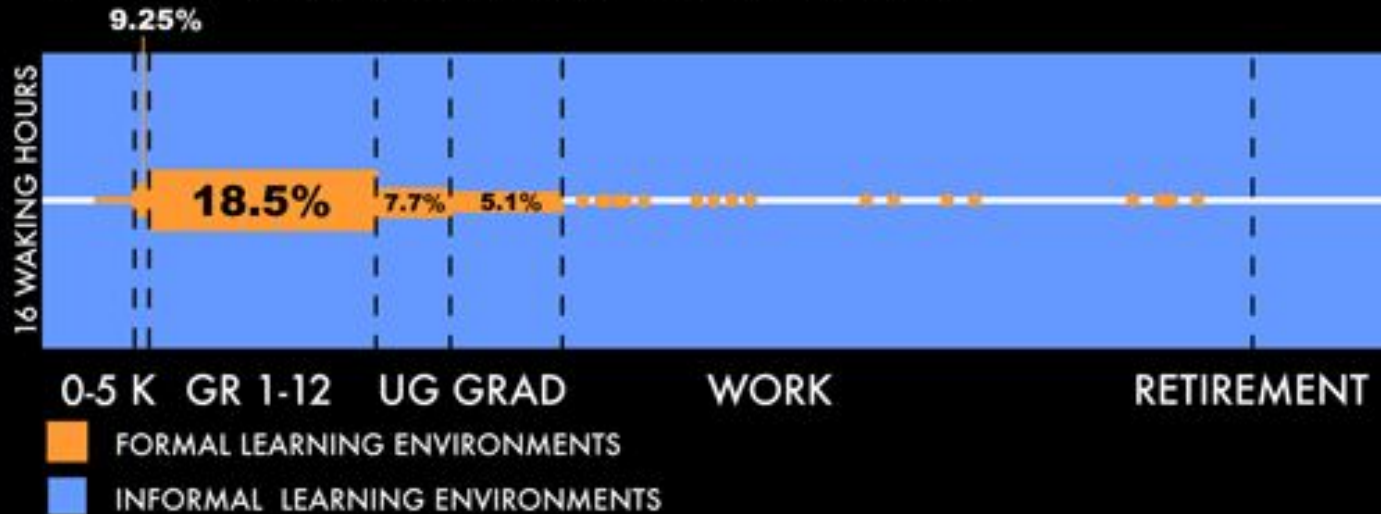
They sweep the area clean with a broomstick, sprinkle water, and use rice flour/powder to draw beautiful designs called *kolam*.







# LIFELONG AND LIFEWIDE LEARNING



“Just by interacting with children in **everyday routine activities** (e.g., preparing dinner, gardening, watching television, making health decisions) parents, caretakers, and educators are often helping them learn about...”



**What do you notice about  
these examples of learning  
in informal environments?**



- 1. Centering Students & Families**
- 2. Centering Communities & Cultures**
- 3. Centering Yourself**

- 1. Centering Students & Families**
- 2. Centering Communities & Cultures**
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# Case Study 1

1. **Access the Case Study & reference the artifacts.**
2. **Read and annotate to note your thoughts and questions.**
3. **What are you noticing about this case?**

**<https://bit.ly/Case1-10-28-23>**









## Some Facts about Ethiopia ኢትዮጵያ

By Helina Robel (ሀሊና ሮቤል) and Afiyah Bayou (አፊያ ባዮ), Cambridgeport Elementary, March 13, 2023



- Ethiopia is the horn of Africa.
- It never snows but it hails sometimes.
- There's a lot of rain during winter.



- There are Ethiopian Muslims and Ethiopian Orthodox Christians.
- People speak Amharic, Oromo and some other languages in Ethiopia.
- Did you know the Ethiopian calendar is unique? It is the year 2015 according to the Ethiopian calendar, not 2023.
- Ethiopia has 13 months of sunshine.
- The 13th month, Pagume, is 5 or 6 days



- Ethiopian food is very delicious. You should try it!
- Injera (a type of soft bread) is the most popular.

### Count to 10 in Amharic:

Number	Pronounce As	In Amharic
0 (Zero)	Zero	ዜሮ
1 (One)	And	አንድ
2 (Two)	Hulet	ሁለት

3 (Three)	Sost	ሶሳት
4 (Four)	Arat	አራት
5 (Five)	Amist	አምስት
6 (Six)	Sedist	ስድስት
7 (Seven)	Sebat	ሰባት
8 (Eight)	Semint	ስምንት
9 (Nine)	Zetegn	ዘጠኝ
10 (Ten)	Assr	አስር

### Game: Qileblebosh ቅልብልቦሽ (with 5 stones)

#### How to Play:

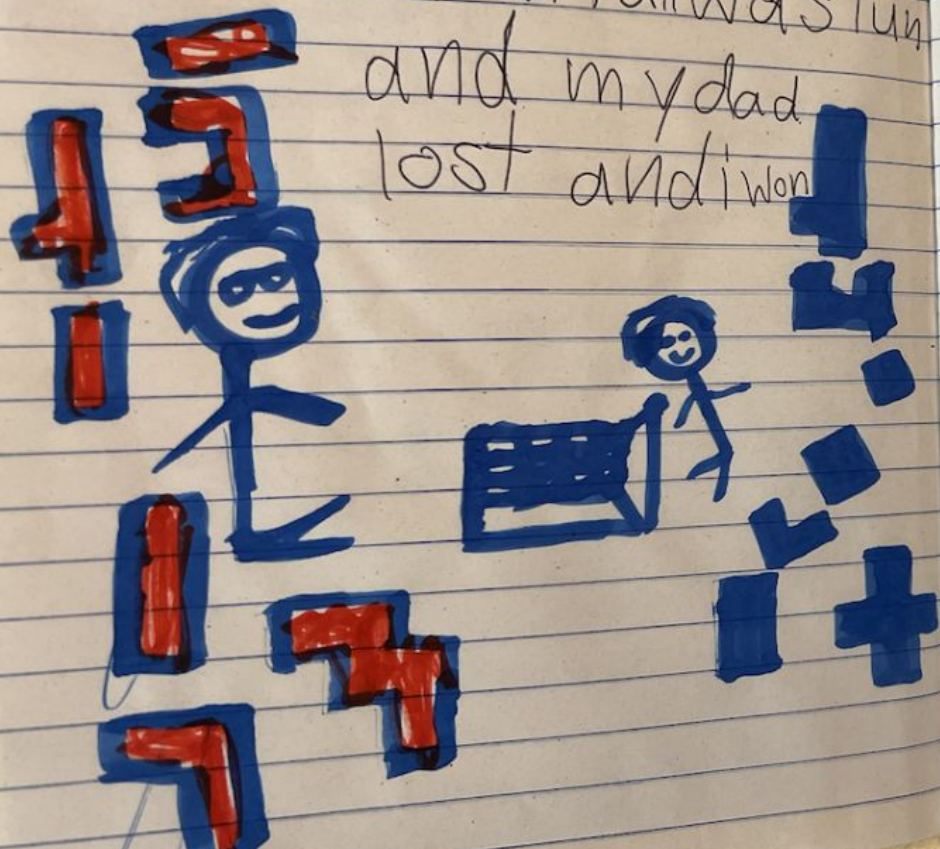
- The game begins with the 5 stones on the ground. You pick up one stone and throw it in the air. As it comes down, you have to quickly pick up another stone from the ground and catch the stone thrown in the air.
- Now with two stones in your hand, you throw one of them into the air and grab another stone from the ground, until all 5 stones are in your hand.

#### You can imagine and create your own math questions and puzzles when you play games.

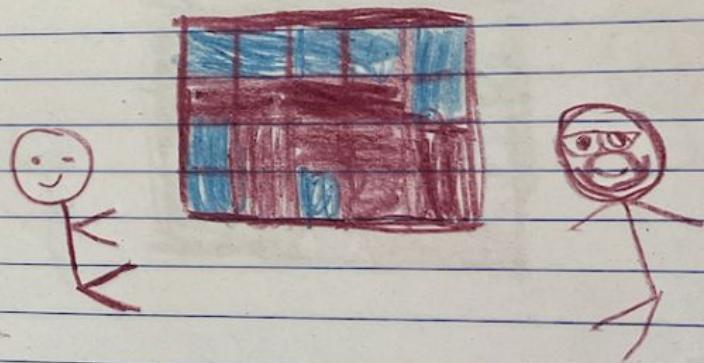
When you play *Qileblebosh*, if you catch 1 stone in the 1st round, 2 stones in the 2nd round, 3 stones in the 3rd round, 4 stones in the 4th round, and so on... until you have 10 stones in the 10th round, **how many stones will you collect at the end of 10 rounds?**

**How did you solve the problem? What strategy did you use? Do you see any cool patterns in the numbers you have to add that make it easier, elegant, or more fun to add them? Math is all about patterns!**

I played with my  
dad and it was fun  
and my dad  
lost and i won



~~Now~~ then on the  
other i win  
then my dad  
lost



# Six Universal Behaviors Involving Math

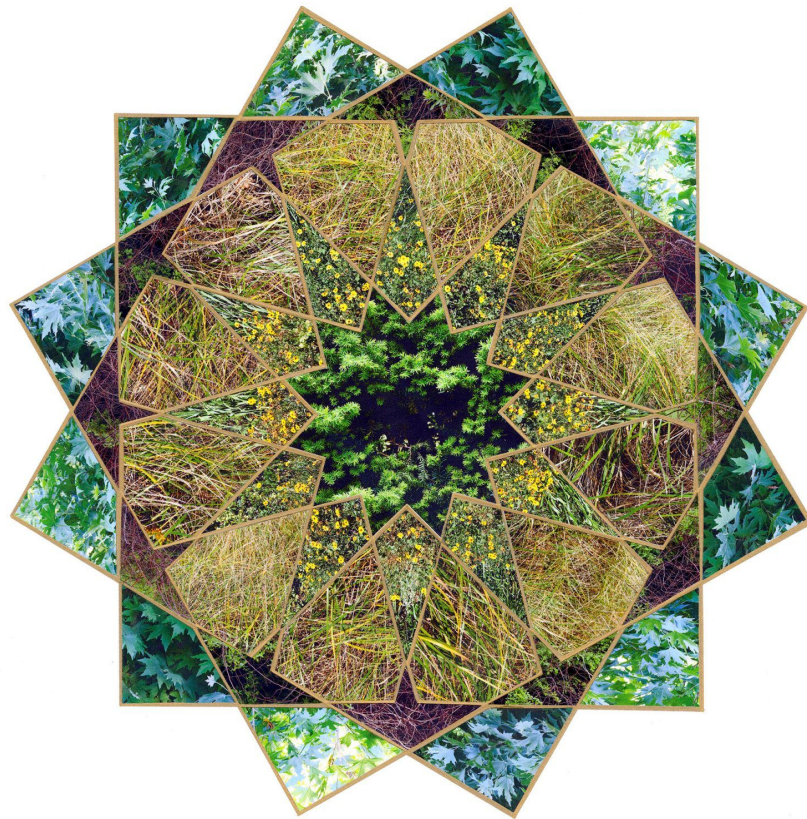
- Counting
- Locating
- Measuring
- Designing
- **Playing**
- Explaining

1. Centering Students & Families
- 2. Centering Communities & Cultures**
3. Centering Yourself

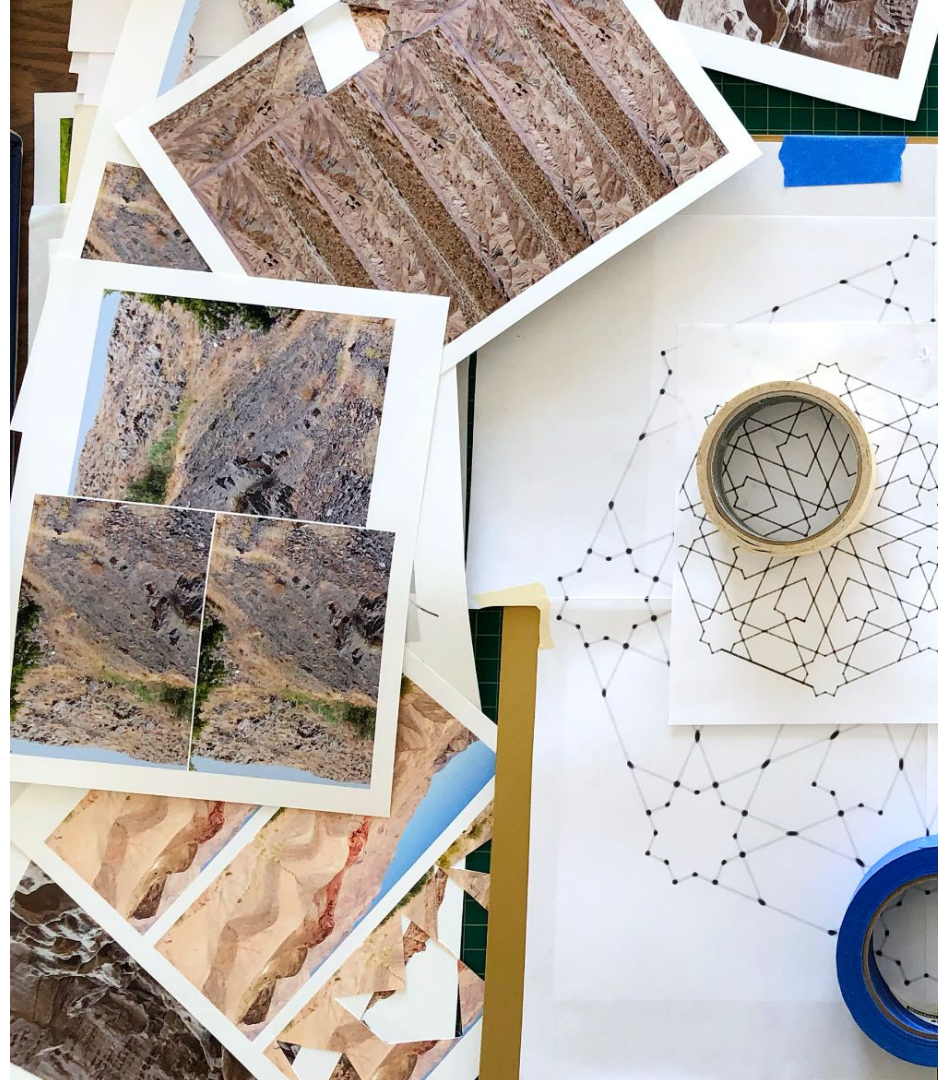








**What shapes do you see?**  
**What other math do you see?**






# Case Study 2

CAMBRIDGEPORT FAMILIES MATH-ART CONNECTIONS

## KOLAM: SOUTH-ASIAN CULTURE, ART & MATH




THURSDAY,  
MARCH 10, 2022


TIME:  
5 - 6PM

ONLINE (ZOOM LINK  
WILL BE SENT OUT.)

Do you enjoy art? Do you like learning about different cultures and traditions? Join our math coach, Deepa, for a joyful exploration of Kolam, a traditional South-Indian art form, and explore the math connections in this art form.



CAMBRIDGEPORT FAMILIES MATH-ART CONNECTIONS



## AN EVENING WITH GOHAR DASHTI: ARTIST & PHOTOGRAPHER

**MARCH 30, 2022 | 5 PM TO 6 PM**  
**VENUE: C'PORT LIBRARY, 6TH FLOOR**

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This is the second session in our art-math-culture series. Do you enjoy art? Do you like learning about different cultures and traditions? Learn how Gohar Dashti uses geometric patterns common in Islamic art and architecture from the Middle East and North Africa as inspiration for collages.







**You can show up!**

[Home](#)[About Squirrel Fest](#)[Volunteer](#)[Become a Vendor](#)[Sponsor](#)

# Squirrel Fest is On!

R.A. Long Park at the Longview Civic Circle – 1445 17th Ave, Longview, WA 98632

Get excited! Our 11th Annual Squirrel Fest returns August 19th 2023.

Sponsorship and performer applications are available now.

[BECOME A SPONSOR](#)[BECOME A VENDOR](#)









**What are the opportunities for sharing math experiences within your community?**



1. Centering Students & Families
2. Centering Communities & Cultures
- 3. Centering Yourself**

## Mr. Adrian

What math do you see?

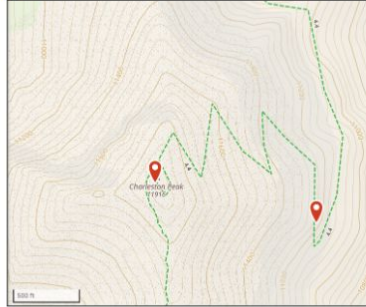
Do you think the size of the pot matters? Why or why not?

Tamales cooking



**Math in my culture:** Every year my family gets together on Christmas tradition in my family's culture. Although they take quite a long time to prepare, tamales are a traditional food. I always have a friendly competition to see who can make the best tamales.

## JOHN



One way I use math outside of work is when I go hiking. Math helps me understand the terrain. For example, if I know the elevation of a particular mountain might be, I use a **topographic map** to see elevation (the difference in height between two points in a valley is). Here, each brown line (called a **contour**) shows a different elevation. If I follow a contour line and head to another one, I would have gone up or down 40 feet.

?

**In what ways do you engage in math for your own purposes?**



**Who is centered?  
Who is centering?**

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