



Teaching *for*
TRANSFORMATION

Kiva Loans in Math Class Algebra 1 (Grade 9)

Kayley Fjording
The City School



Deep Hope:

What if... through our study of mathematics, we can discover beauty, joy and purpose; and reflect on God's character as we observe His creation.

Long Term Learning Targets:

- 🎯 I can discover purpose by **describing data** to meet the real needs of real people.
- 🎯 I can demonstrate compassion for Kiva recipients and provide opportunities for them to attain a microloan.
- 🎯 I can steward my time and resources by fundraising.

Curricular Outcomes:

Include the main state curriculum standards you covered during this FLEx/unit.

A-ACED.A.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

A-ACED.A.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.

A-AREI.D.12 Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

HSS.ID.A.1 Represent data with plots on the real number line (dot plots, histograms, and box plots).

HSS.ID.A.2 Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

Habits of Learning:

Curious Thinking... How much to charge for items they were selling? What was their fundraising goal? What made a good fundraising proposal? Why was Lions' Den Cafe more successful than our Algebra 1 class in fundraising?

Courageous Designing... of their fundraising proposals and some of their physical items, e.g. homemade earrings, T-shirt design.

See God's Story:

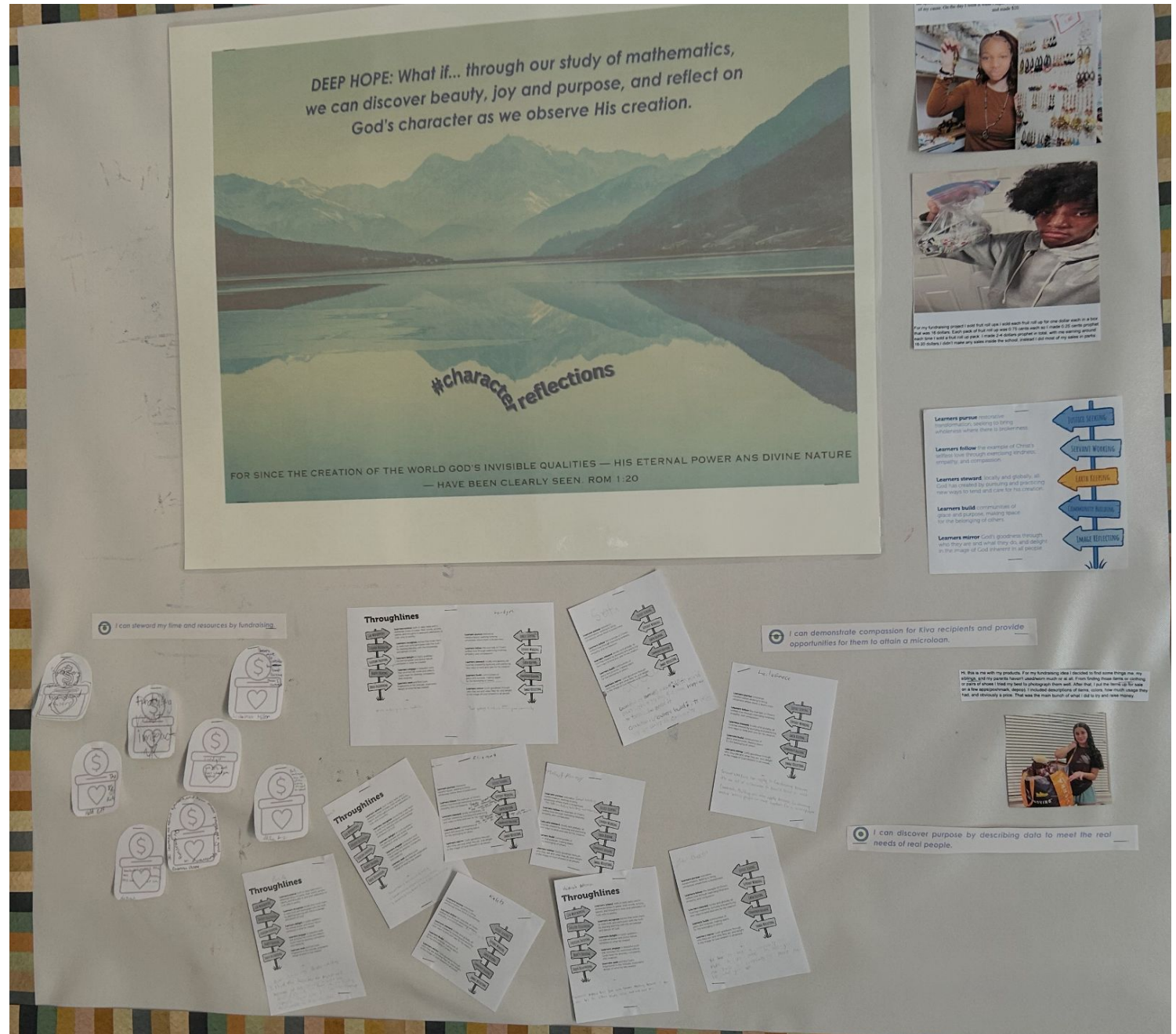
Creation	Fall	Redemption	Restoration
People have value because we are made in God's image. We have everything we need to flourish and are in close communion with God.	Because sin entered the world, we are separated from God. We have more difficulty laboring for our daily needs.	Jesus has provided a way for us to be reconciled to God and invites us to join him in the ministry of reconciliation to those around us.	We can participate in the work of restoring dignity in others, and building community by stewarding our God-given time and resources for the benefit of others.



Storyline

#character reflections

In our Algebra 1 class, we connected math to real-world impact by using our fundraising efforts to offer micro-loans through [kiva.com](https://www.kiva.com). This project reflected God's character —showing compassion, empathy, and kindness by serving others and taking creative initiative to meet real needs around the world. Through this, students not only applied their learning but also grew in reflecting God's heart through action.





Throughlines:

Community Building: The Throughline gave us a purpose for comparing our different sets of real data and talking about what made fundraising most successful for real people. It helped galvanize some action when they realized that their classmates were really fundraising.

Servant Working: Stewarding their time and resources for the benefit of others seemed to be a new concept for some. At first they either were reluctant to participate or had unrealistic expectations for their proposals. When they understood there were simple options available to them too, they were more willing to participate.

Formational Learning Experience

Real needs: Fundraising to offer micro-loans (\$25 each) to people who are wanting to transform their income-earning potential.

Real people: Entrepreneurs listed on [kiva.org](https://www.kiva.org) (learners chose recipients); people of good character in their communities.

Real work: Plan and implement parent-approved fundraising over a 1 month period. Compare the Algebra 1 fundraising data with the Lions' Den Cafe fundraising data.

INVITE

I shared with my Algebra 1 learners that I had previously had a small class of 7 learners who had raised money for 7 micro-loans through Kiva and that it had been a valuable learning experience for us. I invited them to participate in a similar fundraising FLEx.

Account overview

AVAILABLE TO LEND

\$20.64

OUTSTANDING LOANS

\$141.90

[Find a loan](#)

Your lending insights

\$380

Total amount lent

[My loans](#) →

16

Loans made

9

Countries
supported

[Lending stats](#) →

75th

Lending percentile



INVITE



Krista Wieder ✓

Nonprofit Executive

Greater Philadelphia · [Contact info](#)

500+ connections



Message

More



The City School



Eastern University

Ms. Krista Wieder came to talk to our Algebra 1 class and shared her extensive fundraising experience with us. She emphasized the importance of communicating purpose, building relationships, budgeting, and donations. We learned about the 80/20 rule.

About

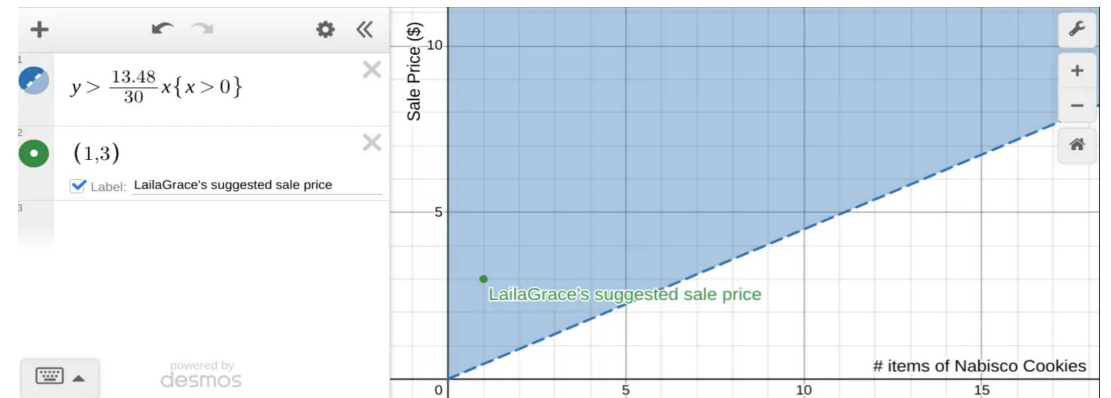
I am an expert in the fields of nonprofit management, fundraising, and community and economic development. My expertise includes project management, strategic planning, marketing, neighborhood planning, community engagement, real estate development, business development and leveraging sustainable funding. I have also worked in the fields of government, education and workforce development as well as with local community development and nonprofit organizations.

My goals are to continue to seek the betterment of our communities through strategic partnerships in order to increase the equity of individuals, businesses and organizations. I also embrace identifying long-term solutions to encourage sustainability of efforts built and created.

NURTURE

- Learners were shown examples and followed along with creating their own spreadsheet, and graphs on Desmos graphing calculator to graph their inequalities.

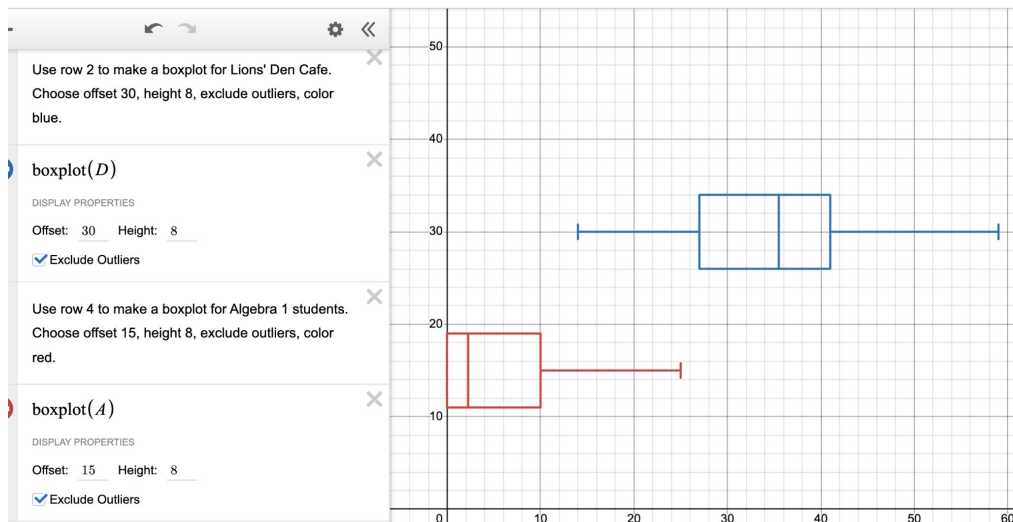
Example	Unit Cost	# items	Cost per item
Ready			
Waters	3.98	40	\$0.10
Variety Herr Chips	13.18	42	\$0.31
Pop Tarts 2-pack (cherry, strawberry, blueberry, cinnamon brown sugar)	9.98	24	\$0.42
Capri sun juice	9.99	40	\$0.25
Kool Aid juice	8.39	40	\$0.21
Nabisco Cookie Packs	13.48	30	\$0.45
Future Ideas			
Mini soda (Ginger Ale, Sprite, Fanta grape, Fanta orange)	14.49	30	\$0.48
Wellsley Farm soda	9.99	30	\$0.33
Cola Variety	18.29	30	\$0.61
Welch's Fruit Snacks	13.99	90	\$0.16
Sour Patch/Swedish Fish	19.99	200	\$0.10
Oatmeal Creme Pies	4.79	12	\$0.40
Twinkies	5.99	16	\$0.37
Cosmic Brownies	4.79	12	\$0.40



EMPOWER

- Learners discovered purpose by describing data to meet the real needs of real people.

Box Plots



Boxplots

Discuss your observations about the boxplots, using data to support your answer? Are there any outliers?



The boxplot tells me the most money the lions den cafe made was 65 and for the alg 1 the most they mad was 25. the money the lions den make weekly is 35.5 and for lions den cafe 2.25. theres was an outlier on 65



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EMPOWER

For this project, I decided to sell earrings in order to raise money for my school. A couple years back I made jewelry as a hobby, but never sold it. So I saw this as a great opportunity to do something with my large supply. A friend of my mother owns a hair salon and allowed me to use her space to sell my product. There, I had a small table and a display stand and informed clients of my cause. On the day I went it wasn't super busy, so I only sold about 4-6 pairs of earrings and made \$20. - LGM





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For my fundraising project I sold fruit roll ups. I sold each fruit roll up for \$1 each. In a box that was \$16. Each pack of fruit roll up was \$0.75 each so I made \$0.25 profit each time I sold a fruit roll up pack. I made \$2-4 profit in total, with me earning around \$18-20. I didn't make any sales inside the school, instead I did most of my sales in parks. - KR





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EMPOWER

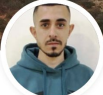
Hi, this is me with my products. For my fundraising idea I decided to find some things me, my siblings, and my parents haven't used/worn much or at all. From finding those items or clothing or pairs of shoes I tried my best to photograph them well. After that, I put the items up for sale on a few apps (poshmark, depop). I included descriptions of items, colors, how much usage they had, and obviously a price. That was the main bunch of what I did to try and raise money. - EO



EMPOWER

- I can demonstrate compassion for Kiva recipients and provide opportunities for them to attain a microloan.







Tawfeeq in Palestine

Tawfeeq will use his loan to pay for the treatment costs. The number of people with bank accounts is on the rise in the Middle East, a vital step in driving economic opportunity.

What's next

- ✓ Your contribution is received
- Their loan is funded
- They use the money to improve their life
- They start repaying you in 15 weeks







Dr. Tracey J. in United States

Dr. Tracey J. will use her loan to empower youth with emotional intelligence to overcome life's challenges. 3 in 5 U.S. business owners felt less stressed about finances after support from Kiva.*

What's next

- ✓ Your contribution is received
- Their loan is funded
- They use the money to improve their life
- They start repaying you in 4 - 8 weeks



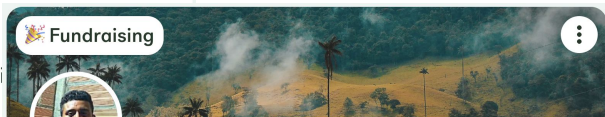



Ahmad in Palestine

Ahmad will use his loan to buy a solar system. The number of people with bank accounts is on the rise in the Middle East, a vital step in driving economic opportunity.

What's next

- ✓ Your contribution is received
- Their loan is funded
- They use the money to improve their life
- They start repaying you in 11 weeks





Luis Alfonso in Colombia

Luis Alfonso will use his loan to buy a freezer for storage. People living in poverty in South America has decreased from ~30% in 2002 to less than 20% by 2020.

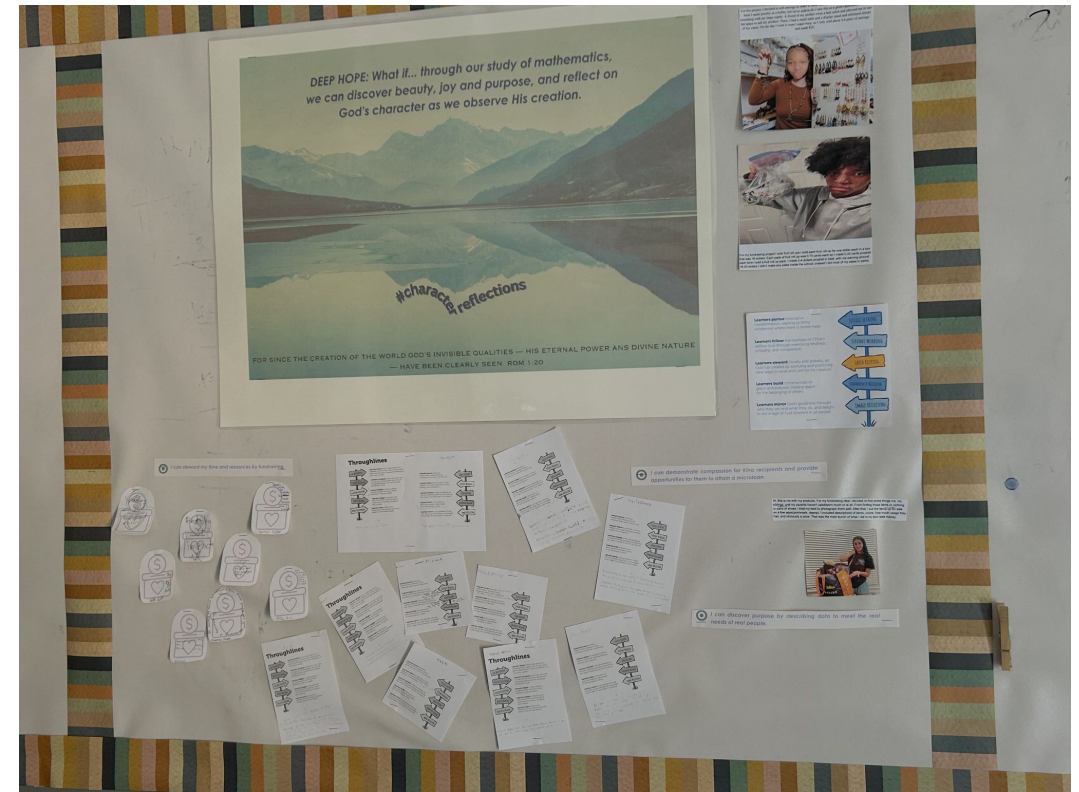
What's next

- ✓ Your contribution is received
- Their loan is funded
- They use the money to improve their life
- They start repaying you in 11 weeks

Student Reflections

I see mine in deep hope via the fact that I reflected on myself in God's character. - BF

It connects with God's character because He is a generous, caring God. - LGM



Student Reflections

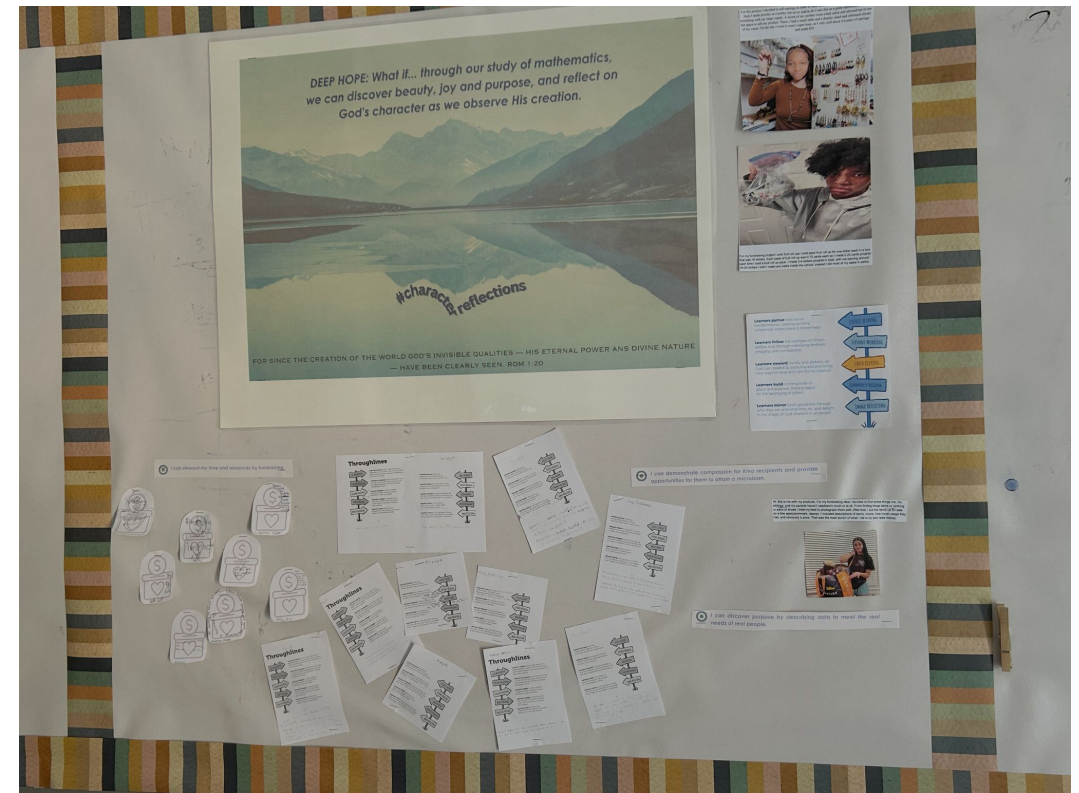
It shows others our love from God through our actions. - SAd

because money is connected to math and through money we are able to fulfill the wishes of others purposes and bring them joy with the help, doing this fundraiser is like God answering prayers. - KP

It can help with passion toward others with giving to people and help with the rules that Jesus set for us. - KR

It really taught me hard work and that my actions could benefit others with the algebra one whole shebang it really lightened up my world this is not about the Kiva participants although they were there, for me for me this is about me and how I would grow as a person. - BF

It teaches me how to use my resources better. - SAm



Teacher Reflections:

How were Deep Hope and long-term learning targets realized through FLEx?

- The learners made connections between describing data and how it related to both fundraising efforts.
- They initially struggled with wanting to fundraise for people they didn't know as I had chosen the organization (change next time). There was joy and purpose in reflecting God's character and showing compassion to the recipients of the microloan.
- Students stewarding their time and resources for the benefit of others seemed to be a new concept for some.
- There was creativity and beauty in their ideas for fundraising, e.g. selling earrings, designing T-shirts, repurposing items etc.



Letter to Families:

Good evening!

I wanted to let you know a bit more about our current Formational Learning Experience in Algebra 1.

Our Deep Hope in Algebra 1 this year is:

What if... through our study of mathematics, we can discover beauty, joy and purpose; and reflect on God's character as we observe His creation.

Formational Learning Experiences (**FLEx**) are opportunities for the learner to engage in "real work that meets a real need for real people". We are looking at applying some of the attached Throughlines as we seek to have an impact beyond our school.

We had a guest speaker, Ms. Wieder, speak to our class last week about the purpose and practicalities, and mathematical considerations of fundraising. Mathematical skills of estimating, budgeting, applying linear inequalities, and describing data are incorporated.

If our class of 10 learners are able to raise \$25 or more, we will be able to offer a microloan to a [Kiva](#) recipient entrepreneur. Students were asked to consider what they could do to participate in our class's fundraising.

They have the opportunity to consider working in a group or by themselves with their proposed project.

It is not intended to be more time-consuming than regular homework over the month of March, or risk losing money. I have particularly asked them to discuss it with their families to get their approval so that they are staying safe, choosing something appropriate for their skillset, that fits in with their other responsibilities.

I did a similar FLEx with a previous math class and 7 learners raised \$175 over the month and we were able to offer 7 Kiva microloans.

Previous learners have sold homemade food and baked goods after school, washed cars or babysat for families and friends, sold snacks or drinks or crafts locally etc. Other learners I know have also organized pre-orders of silicone bracelets, T-shirts or string bags etc that were popular items sold to other learners.

I hope your child finds this FLEx to be a valuable learning opportunity beyond the classroom.

In partnership,



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Checklist for website publication

As part of our ongoing curation of TfT stories, we invite you to prepare your TfT story for inclusion on our website! Please complete the checklist (right) and email your PowerPoint to your school designer. Please include your information below so we can reach out to you with questions, should they arise.

Name: Kayley Fjording

Email: fjording5@hotmail.com

School: The City School

Overall:

- ☐ Story is easily understood by someone not familiar with it.
- ☐ Permission for student names/photos to be shared throughout TfT network
- ☐ Spelling/grammar/sentence structure
- ☐ Links are active (and are linked to items that can be shared throughout TfT network)
- ☐ Photos & artifacts included and plentiful; photos and student reflections are used to tell the story

Slides include:

- ☐ Deep Hope
- ☐ Long Term Targets
- ☐ Curricular Outcomes
- ☐ Habits of Learning
- ☐ See God's Story
- ☐ Storyline
- ☐ Throughlines
- ☐ FLEx
 - ☐ Includes real work, real needs, real people
 - ☐ Involves "top 3 tier" real people
 - ☐ Tied to curricular outcomes
- ☐ Invite
- ☐ Nurture
- ☐ Empower
- ☐ Student Reflection
- ☐ Teacher Reflection