Fall 2021 Outreach Team
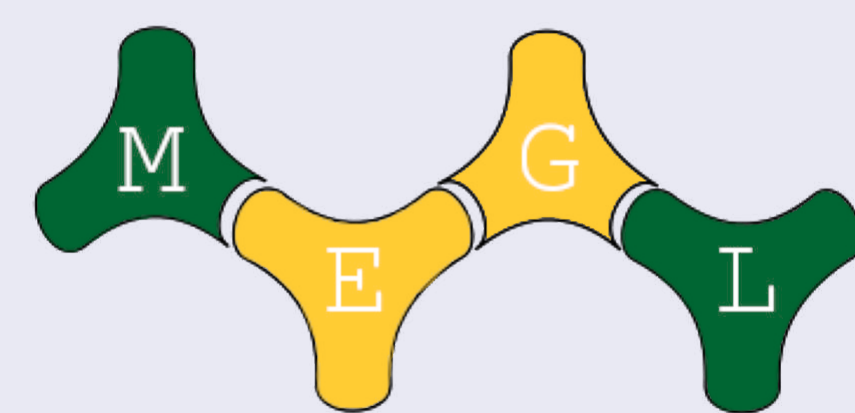
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Mason Experimental Geometry Lab

GEORGE MASON UNIVERSITY

December 2021

Introduction

This semester, we began to transition back into in-person activities. With COVID safety in mind, we are now offering almost every one of our talks in either an in-person or online format. With an additional two interns this semester, we launched into a successful semester by holding parallel sessions of You Can Count on Monsters. We also launched social media for MEGL and successfully switched to a new website!

Activities

- You Can Count on Monsters
  - Prime factorization
- Really BIG Numbers
  - Linear, polynomial, exponential, and factorial growth
- Your Teachers are Lying to You
  - Context matters in mathematics
- Playground of the Infinite
  - Hilbert's infinite hotel
- Snowflake Symmetry
  - Group theory
- Hyperbolic Crochet
  - Hyperbolic geometry
- **Irrational Thinking - Online!**
 - **Irrational numbers**
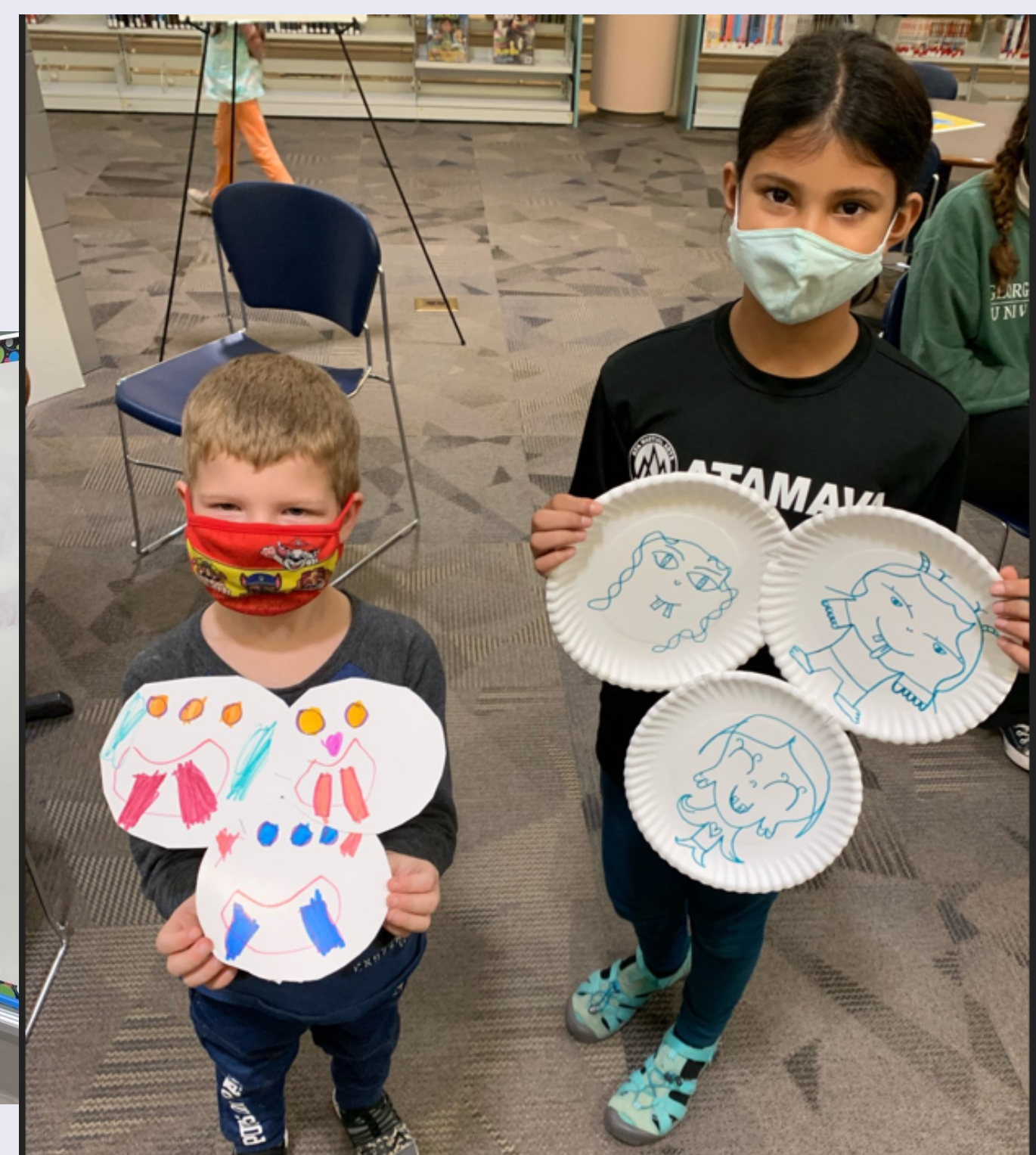
Accomplishments

MEGL by the Numbers

- Number of students reached:
  - Elementary and Secondary Schools:
   640 K-6 students reached bringing our total to 8806 students reached overall!
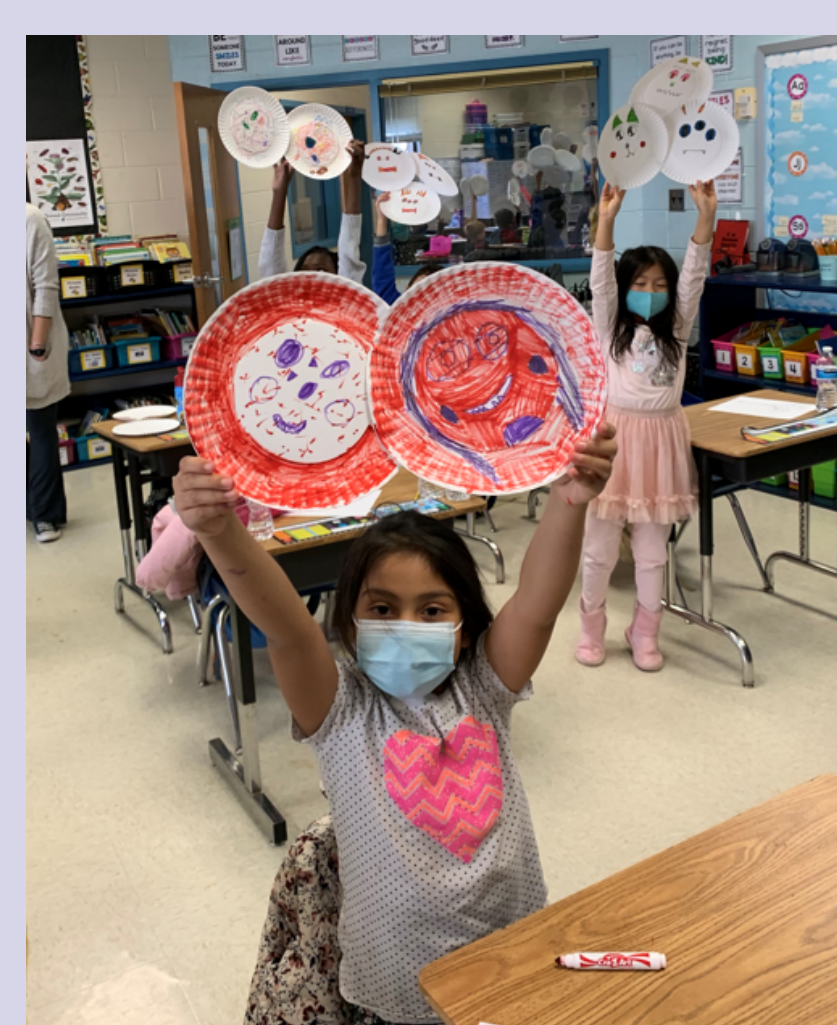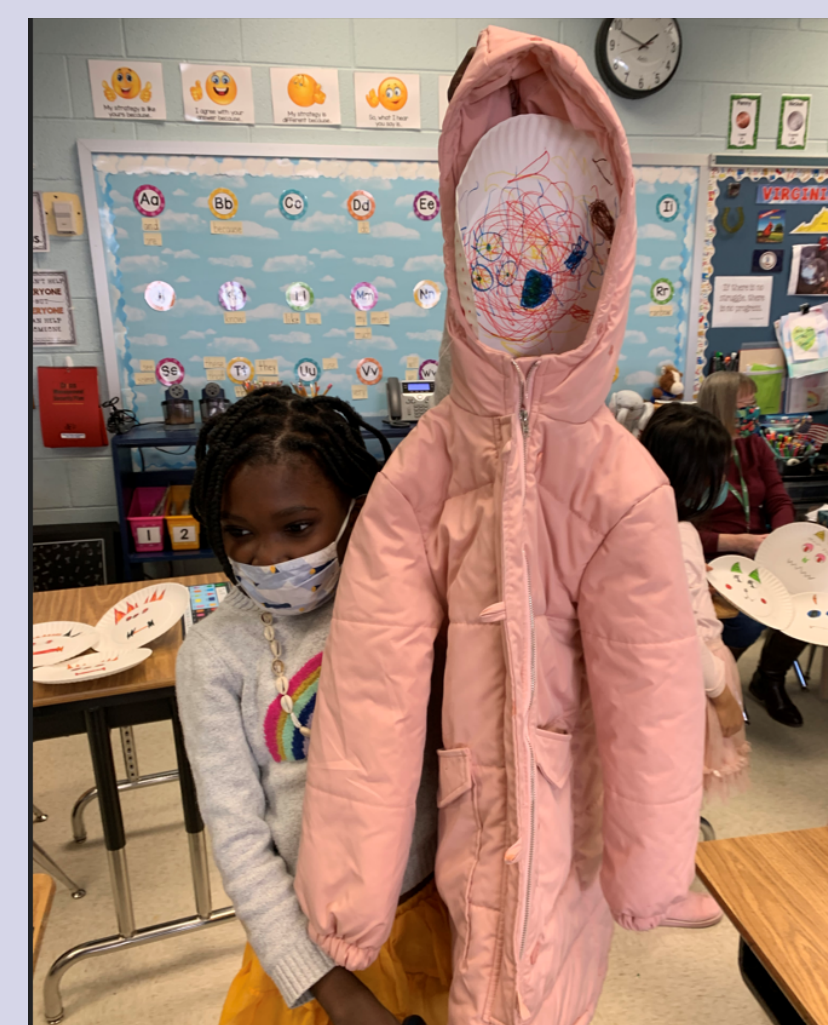
- Performed You Can Count on Monsters for five entire grade levels at three different schools.
- MEGL is now on social media (Instagram, Twitter)!
- Successfully created a new MEGL Outreach web page.
- All five current members are trained on Can Count on Monsters, allowing us to conduct parallel sessions of YYCoM.
- We had a mathematically correct breakfast.
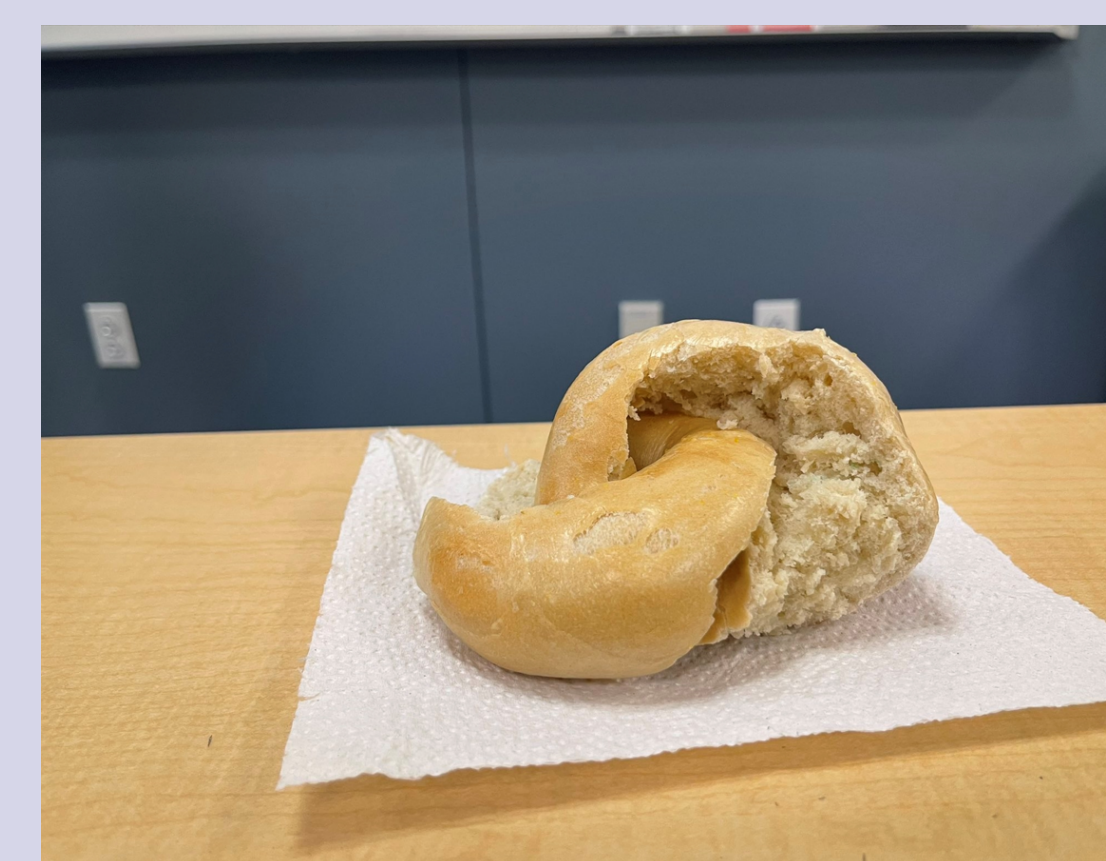
Adapting During COVID

Transitioning in person has been a great success since our team grew. We have successfully conducted many in-person activities with more to follow in the Spring. With safety in mind, we applied modifications to activities such as virtual visits to classrooms, hand sanitizer stations, preparing materials kits for virtual engagement in liars.
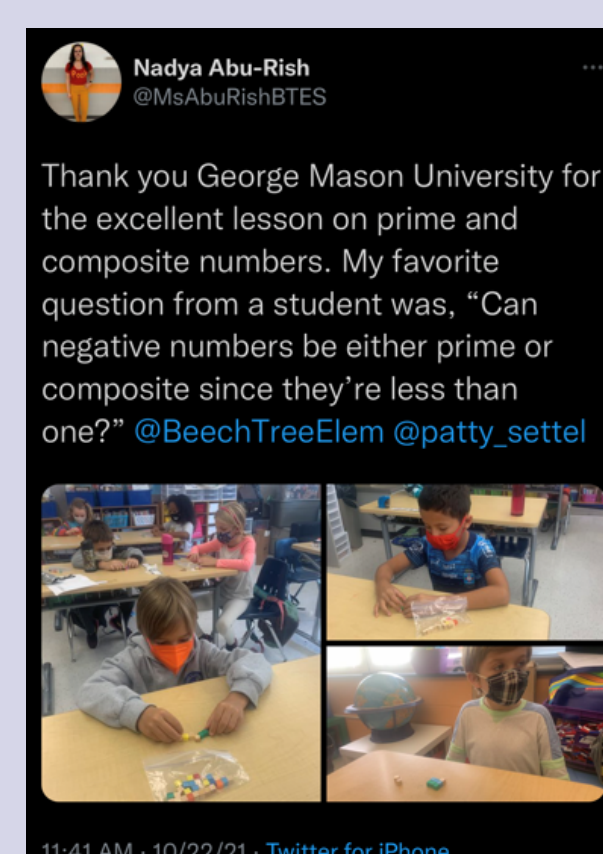
Pictures
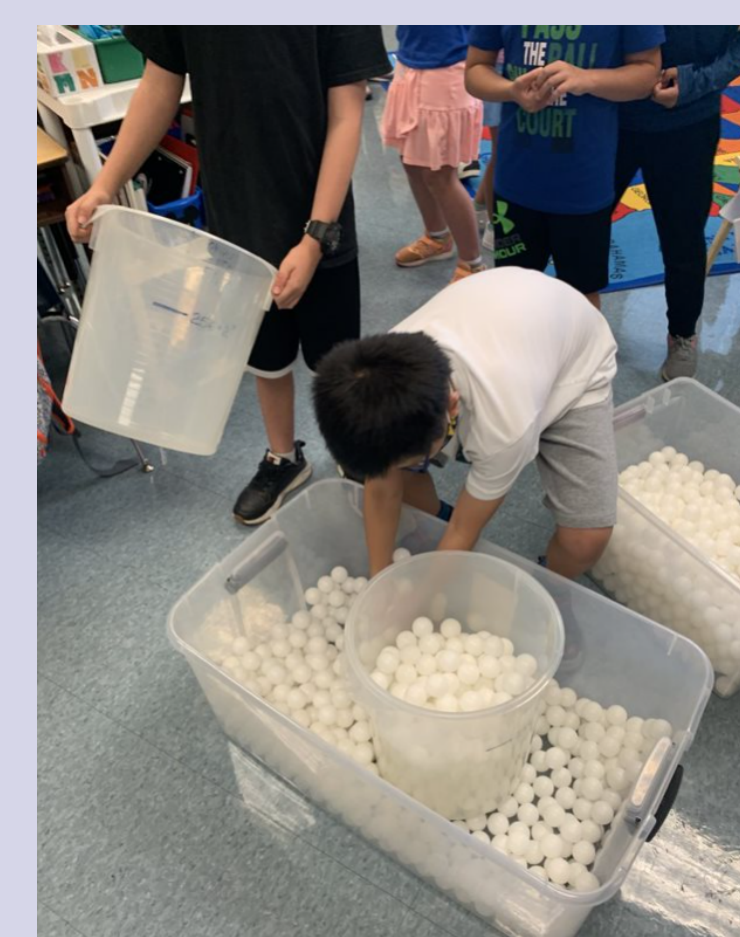
Future Goals

- Reach more students and target more secondary school students, as well as members of the GMU community.
- Create an in-person version version of Irrational Thinking.
- Conduct activities for teachers and parents
- Create more follow-up lessons

Potential New Activity Themes

- Mathematical Puzzles
- Topology Magic
- Counter Examples in Mathematics

More Pictures