

Housing & Geometry

By: Rebekah and Christine

Using the principles of culturally responsive pedagogy and anti-racism education, we were fortunate enough to teach a math lesson, which incorporated elements of geometry, number sense/numeration, and data management to a vibrant grade 6 class. The school that we taught at is an inner-city school located in one of the most multicultural communities in North America; more than 85% of the school population have English as their second language. The students in this class are all racialized students, either born in or have parents who were born in countries within South Asia, Southeast Asia or Africa. Moreover, many of these children live in one of the 22 apartment towers that surround the school.

At a glance, here is what we did:

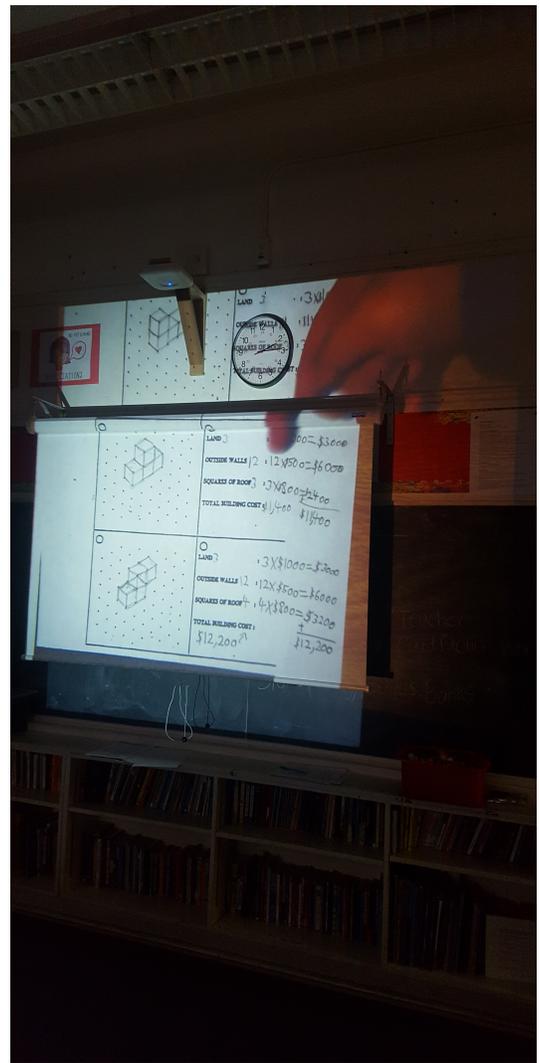
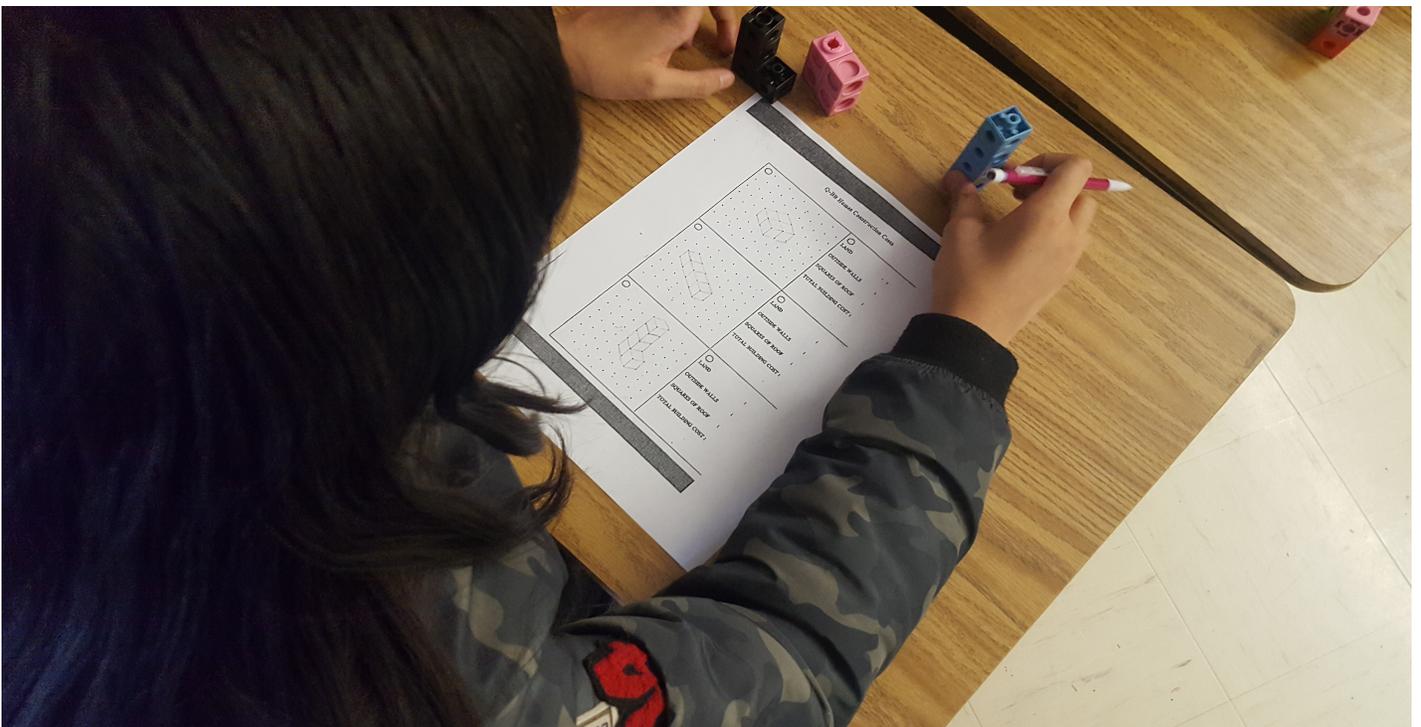
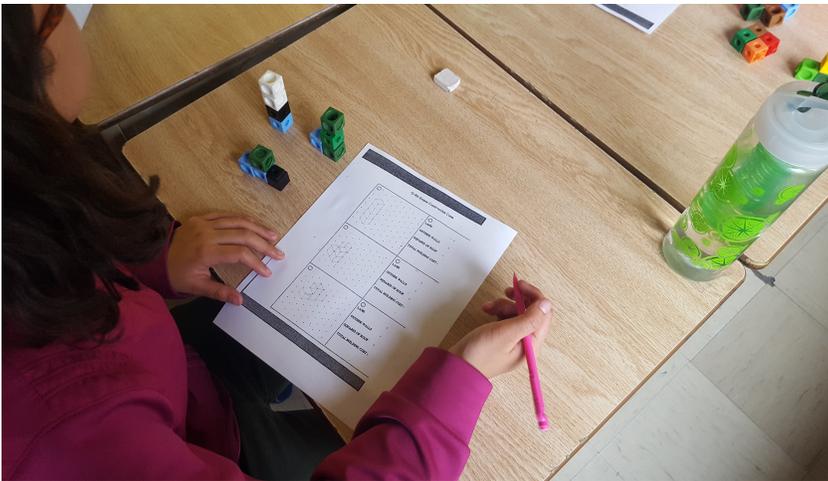
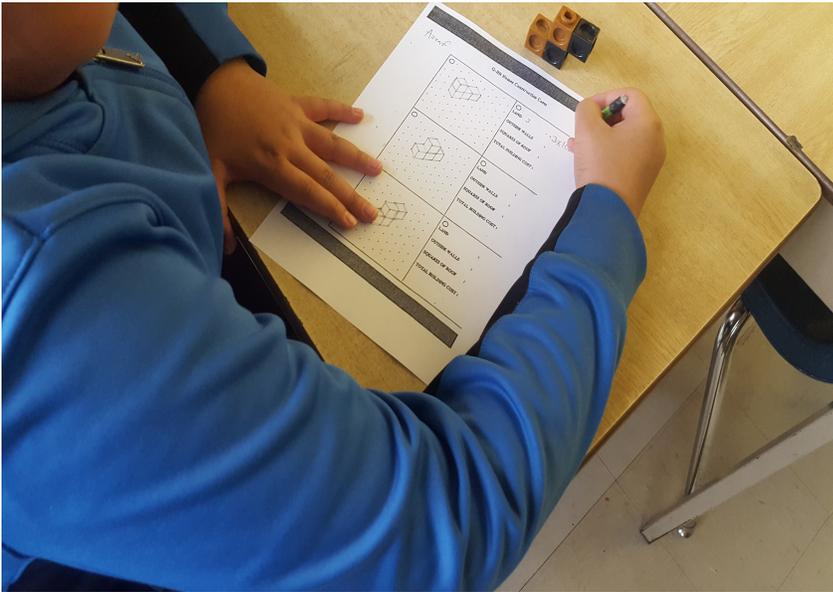
We visited the school and the surrounding community a week before we observed the classroom. We observed the community: playgrounds, stores, apartments, infrastructures, we also spoke to a few community members. In addition to this, we intentionally looked for how math was interwoven/used in the environment/community.



We went back a week later, this time we visited the classroom and observed the students and teacher as he taught a math lesson on calculating the area and volume of a 3D shape.

The following week we taught the students our own lesson adopted from a math workshop adapted from *Q-Bit Homes- O.A.M.E-Linking Assessment & Instruction in Mathematics*

- We shared our immigrant stories with the students- with a particular emphasis on our experience with acquiring housing
- We, along with the students, created a made-up family profile that would guide the next step in our task. We discussed the country our family would come from (could be Canada or elsewhere), how many people were in this family, what jobs the parents worked, and what factors were important to the family when considering housing (Ex. being close to transit? etc..)
- We told the students that keeping this in mind they had to use 4 cubes to create a home for this family that was affordable given their circumstances. We explained the instructions of this task in detail: telling them the cost of the roof, walls, land, and modeling how to construct a home and how to identify the roof, wall, and land.
- Some students then shared their work with the class



Children developing perspective taking skills and number sense through building structures and calculating the cost.