We discussed the importance of pattern recognition, prime numbers, and factoring. The students applied these concepts in a study of elementary cryptography, beginning with a basic cipher and ending with RSA encryption. Students discovered the challenges of factoring. They also learned modular arithmetic.

In groups, students were assigned a field of study and asked to write a script for a video in which they incorporated fractions.

As part of a lesson on adding and subtracting multi-digit numbers, students created budgets. We also included a classroom discussion on the importance of higher education.

In the Classroom

In both schools, conceptual knowledge is always emphasized. We explore the fundamental ideas of numbers, geometry, and early algebra through exploratory activities.