

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2022 Volume III: Ethnic Studies: Theory, Practice, and Pedagogy

Revealing Truth: An introductory Unit for Algebra I

Guide for Curriculum Unit 22.03.02 by Annie Lerew

This ten-lesson unit is for a 9th grade Algebra 1 course and is recommended to be taught as the first unit of the course. Most students enrolled in this course in my school district are classified as "behind" or "severely behind" grade level. Typically, students lack mathematical enthusiasm and have great anxiety about studying mathematical topics. Students frequently self-classify as "bad" at or "hating" math. The teachers of this unit should be focused on dismantling systems of oppression that exist in mathematics curriculum and classrooms that often leave Black, Latinx, and Indigenous students disenfranchised from their own mathematical potential. Acknowledgement that mathematics classrooms are not race neutral spaces will be a key component to successful implementation of this unit.

This unit aims to help students reframe their own thinking about studying mathematics through two simultaneous and equally important strategies. First, students will spend time reflecting on their own mathematical stories and heritages culminating in a project where students write personal math narratives, which they will submit at the end of the unit. Second, the unit focuses on the history and very nature of mathematics. Students will spend time writing and thinking about the infinitesimal and infinite, patterns, irrationality, and the history of humanity's interactions with these concepts.

Through individual writing and thinking as well as small group and full class discussions, students will unpack their own mathematical histories and rebuild their frameworks around the discipline in ways that will serve them throughout their high school mathematics endeavors.

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