

Dismantling Math Barriers for Future STEM Leaders with EdReady

The NROC Project and The Engineer Factory



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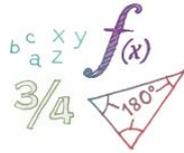
HOUSEKEEPING

- Use the Q&A area to submit questions as they arise, and our team members will be actively managing questions in the Q&A and Chat boxes.
- This webinar will be archived at [NROC.org](https://www.nroc.org), and you'll receive a follow-up email with a link to the recording and slides.
- Do you need help with Zoom? Email [community@NROC.org](mailto:community@nroc.org).

WELCOME POLL

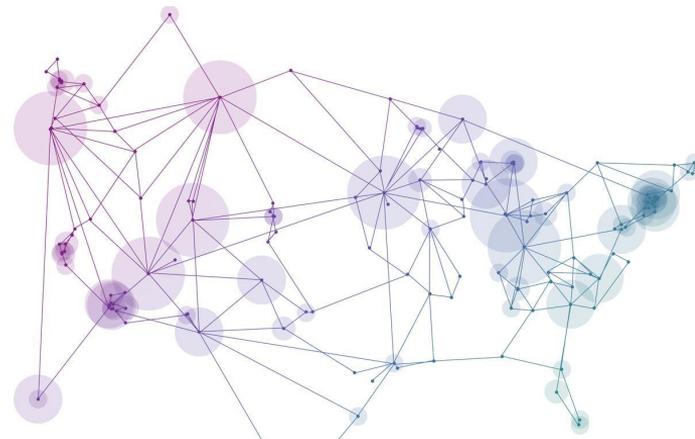
- We'd like to know who's joining us today! Please put your name, institution and current role in the chat. Welcome!

THE NROC PROJECT



Developmental Math
AN OPEN PROGRAM

EdReady®
Powered by NROC



2003



Algebra 1
AN OPEN COURSE



Developmental English
AN INTEGRATED PROGRAM



2026

NROC
founded

OER creation
and distribution

Adaptive learning
development

Diversification and
refinement

Scaling for equity
and impact

Mastery Status of Learning Objectives (Unit and Topic Level)



Untested: this material was not covered by the diagnostic



Not Ready: student has mastered less than 50% of included learning objectives



Needs Review: student has mastered 50-99% of included learning objectives



Doing Well: student has mastered 100% of *tested* learning objectives... but not everything has been tested yet



Mastered: student has mastered 100% of included learning objectives

TABE 9-10 Math - Easy-Medium
updated 07/21/2020 20:11


Show Details



Use Shapes



Not Assessed



Not Ready



Needs Review



Doing Well



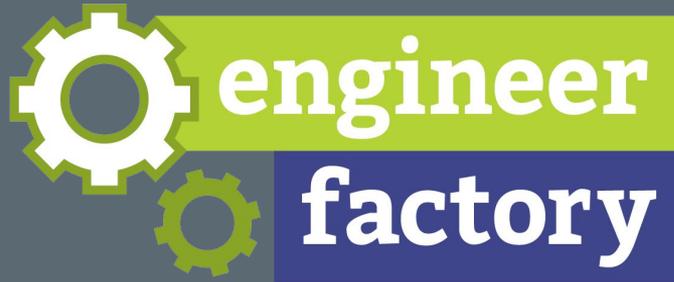
Mastered

Units you should study:
Topic Status:

Note: You have not been tested on every topic in the unit(s) below. Click on any unit at any time to check your mastery more fully.

	Whole Numbers			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	Fractions and Mixed Numbers		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
	Decimals									
	Measurement			<input type="checkbox"/>						
	Geometry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
	Concepts in Statistics	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>					
<input type="checkbox"/>	Real Numbers	<input type="checkbox"/>								

[View Study Path](#)



Dismantling Math Barriers for Future STEM Leaders with EdReady

March 18, 2026

Exploring the strategic partnership between the
Engineer Factory and EdReady

Audrey Thompson (Mrs. T) Backstory



- Grew up in South LA
- Earned BA in Political Science and MA in Urban Planning from UCLA
- More than 35 years of nonprofit leadership & program development experience
- Founded Engineer Factory in 2016 with family
- Engineer Factory has served more than 10,000 students via school-based, afterschool and summer programs
- Mother of three amazing kids and one adorable granddaughter (born 12/13/25)



Too adorable not to include

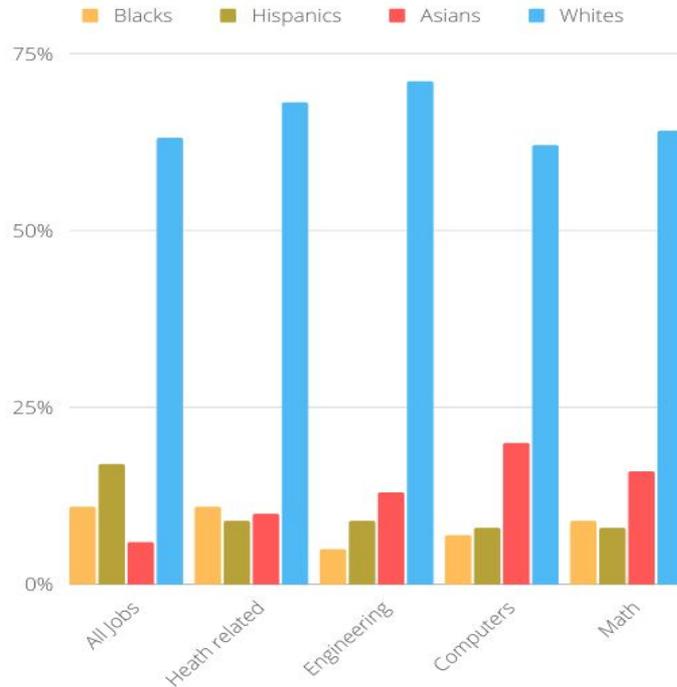


Engineer Factory Mission- What We Seek to Achieve

- The mission of the Engineer Factory is to strengthen the K-12 STEM education pipeline in underserved communities and increase the number of students from underrepresented populations (girls and students of color) who pursue higher education and careers in Engineering and STEM. This is accomplished through:
 - hands-on, project-based learning (STEM workshops & classes);
 - Competing in engineering competitions;
 - academic support, particularly math (Summer STEAM and #MathSwag);
 - professional development for educators;
 - exposure and linkages to the engineering industry & mentoring;
 - strategic alliances and partnerships with engineering-related programs;and by awarding scholarships to deserving high school students

Why we believe Engineer Factory is Needed?

Minorities Representation in STEM



Blacks

Black workers make up 9% of the STEM workforce, smaller than their share of all employed U.S. adults (11%).

Hispanics

Hispanic workers represent 8% of the STEM workforce, substantially lower than their 17% share of all employed.

Asians

Asian Americans are overrepresented in the STEM workforce (13%) compared with their share of all employed (6%).

*The rest of the percentage represents smaller groups of minorities.

Challenges to STEM(or Opportunities!



- ❑ Less than 20% of working engineers are women
- ❑ Less than 18% of working engineers are Black or Latinx
- ❑ **65% of female, Black & Latinx students in CSU's who enroll with a STEM major, CHANGE their major within the first 2 years. #1 cited reason is challenges with math**
- ❑ Gender and racial disparities in STEM is pervasive
- ❑ The Department of Labor reports that the US will need 1 million engineers/STEM professionals by 2030
- ❖ Engineer Factory seeks to position more students in underserved communities to be one of the million!

Math Challenges in our Community

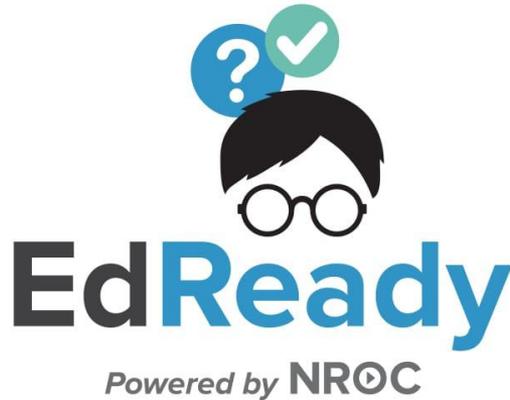
- Math proficiency in the schools in our community is under 20%. At some schools less than 10% of students are at grade level in math.
- One of our local school districts no longer offers Algebra 1 in middle school. For students with STEM futures, it makes it difficult to enroll in Calculus in high school.
 - Math is a “gatekeeper” for students pursuing STEM in high education and careers

CSU Summer Algebra Institute (2018-2025)



- Funded by the CSU Chancellor's Office, the Summer Algebra Institute (SAI) was developed to improve math proficiency of students in underserved communities to prepare them to enroll into CSU colleges.
- Engineer Factory operated sites in 2018, 2019, 2021 (virtual), 2022, 2023, 2024, and 2025 using STEM projects to reinforce math lessons
- Where we were introduced to EdReady
- More than 92% of our middle and high school students demonstrated improved math proficiency upon completing our summer program!

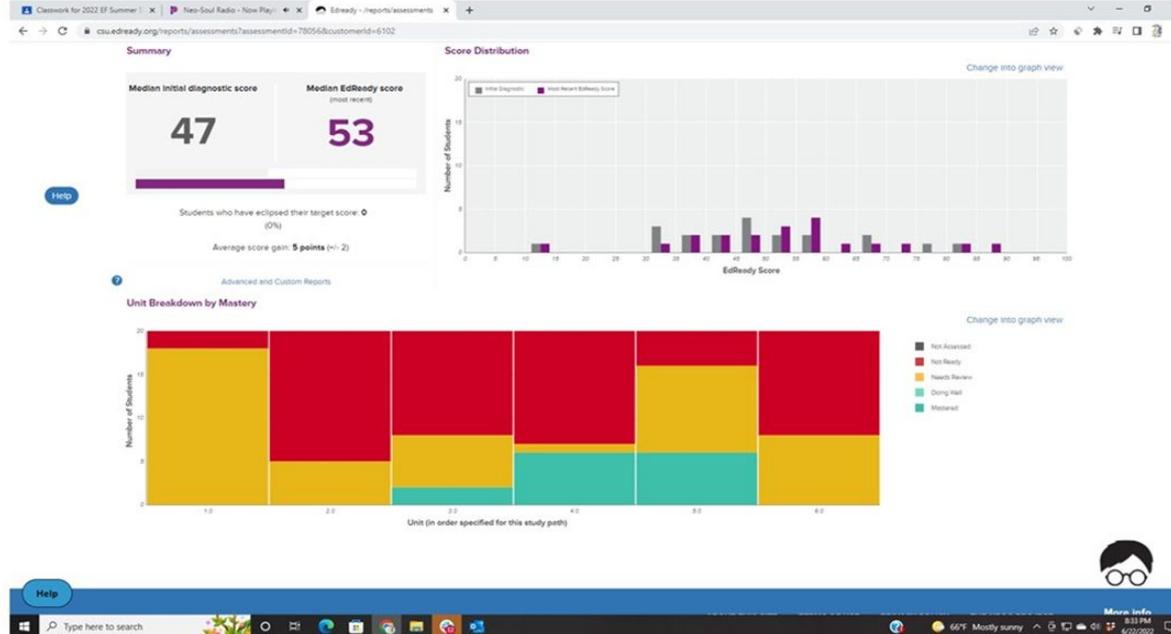
EdReady in the CSU SAI Program



- Math Assessment/
Diagnostic
- Personalized Learning Path
- Easy to Understand Lessons
in multiple Formats
- Inform Live Instructions
- Small Group and 1-on-1
coaching sessions with
Engineer Factory instructor
and STEM Coaches
- Weekly progress reports

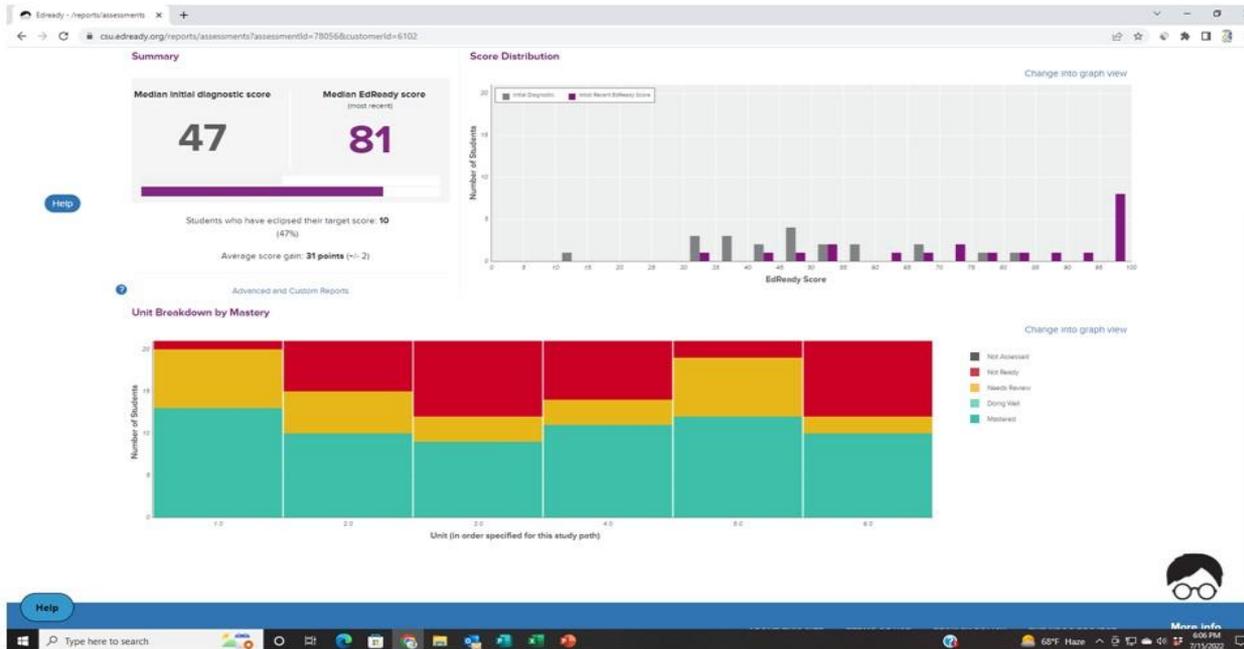
Initial Scores-Students Use EdReady Reports to Inform Live Instructions

Week 1 Foundational Math Summary



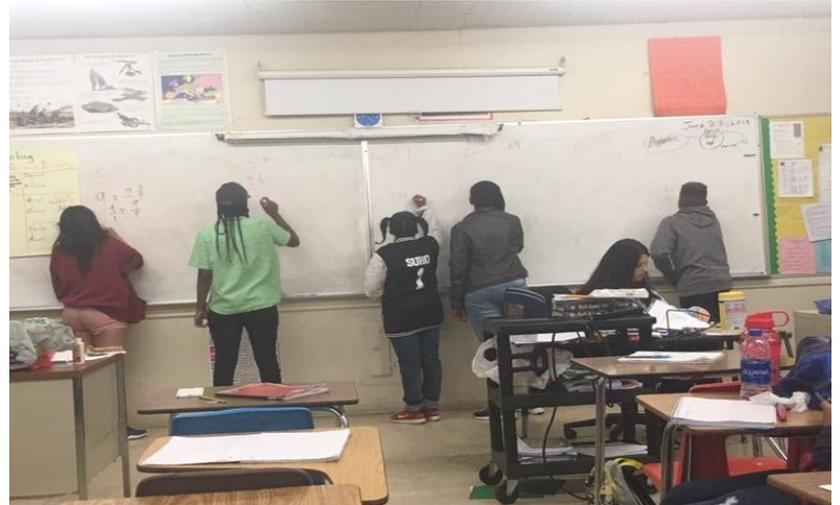
Post STEAM Camp Scores

Week 4 Foundational Math Summary



#MathSwag Program

- Year-round math program; build on summer gains
- Incorporate STEM activities to reinforce Math learning
- Gamify math learning
- Research best practices (especially for educating historically underperforming students – African American and Latino – expanding into LAUSD)
- Use a variety of learning approaches (traditional, digital, culturally relevant, tactile/hands-on, other?)
- Methods for evaluation
 - EdReady is a critical tool in this program



Contact us!

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Questions?

Please put any questions you have in the Q&A comments box, and we'll get to them in the order received!

Upcoming Events

Meet with our team members at upcoming events to talk more about what EdReady can do for your students!

*Be sure to join us for our **upcoming April webinar on April 23rd** with our partners at TN SAILS! Check our website for further details!*



Thanks for joining us today!

GET IN TOUCH

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Book a Demo:



Prepare your students for what's next.

