## The Need to Make Math More Relevant and Engaging for K-12 Students

Americans believe K-12 math education must be improved

## Overview

New research finds math is the subject most in need of updating, according to a robust survey of U.S. parents, teachers, and adults. Parents across racial demographic groups say they believe that their own child would be more likely to excel in math class if it felt more relevant and engaging.

Making math education more relevant and engaging will make it more likely that my child succeeds in math:


## Other Key Findings

Americans believe that for today's students to grow into successful adults, they need strong math skills - no matter what career path they choose.

- Parents, teachers, and the general public say that math is very important for preparing students for the real world (73\%) and for developing skills like reasoning and critical thinking (66\%).
- $56 \%$ of adults strongly agree that when students succeed in math class, they are more likely to succeed later in life.

When students succeed in math, they are more likely to succeed later in life:

$\square$ Strongly agree Somewhat agree ■ Disagree

However, Americans see a disconnect between the K-12 math education they believe our young people need to thrive in life and the one students are actually getting.

- $61 \%$ of parents say math education should ideally be "relevant to the real world," but only $21 \%$ would use this phrase to describe what their child's math education is like today.
- $56 \%$ of adults say math is one of the subjects most in need of updating, putting it at the top of the list for improvement.

Which two or three of the following academic subjects are most in need of updating and improvement in terms of the way they are taught?

| Math | $56 \%$ |
| ---: | :--- |
| Career and Technical Education (CTE) | $41 \%$ |
| Social Studies/History | $36 \%$ |
| English/Language Arts | $35 \%$ |
| Family and Consumer Sciences | $33 \%$ |
| Science | $31 \%$ |
| Arts | $14 \%$ |
| Gym/Physical Education | $12 \%$ |
| Foreign Language | $11 \%$ |

Americans believe the solution is to make K-12 math education more relevant to the real world and engaging for all students.

- Parents and teachers say an ideal K-12 math education would be relevant to the real world (64\%), useful (54\%), focused on creative problem-solving (52\%), and engaging (50\%).
- $96 \%$ of parents agree that making math education more relevant and engaging will make it more likely for their child to succeed in math.


## Which of the following best describe what you think K-12 math education should ideally be like?*

| Relevant to the real world | $64 \%$ |
| ---: | :--- |
| Useful | $54 \%$ |
| Focused on creative problem-solving | $52 \%$ |
| Engaging | $50 \%$ |
| Focused on process and following steps | $39 \%$ |
| Focused on the basics | $37 \%$ |
| Challenging and rigorous | $24 \%$ |
| Joyful | $24 \%$ |

## *Showing top responses; respondents chose up to four from a list of twelve descriptors

As the Bill \& Melinda Gates Foundation invests in improving K-12 math education for all students over the next decade, these findings will inform the foundation's work with its partners. Improving K-12 math education is a large-scale and longterm effort, but the research makes it clear that parents and teachers support this work to make math more relevant and engaging-so that students can use math as a tool to achieve their dreams.

## Methodology

- From July through December 2022, Global Strategy Group conducted qualitative and quantitative research on K-12 math education:
- In-depth interviews with 11 K-12 math education experts nationwide
- Online journals with 29 K -12 math teachers, 20 white parents of $\mathrm{K}-12$ students, and 21 parents of color of K-12 students nationwide
- 11 online focus groups among K-12 math teachers and parents in California, Florida, New York, and Texas*
- Nationwide survey of more than 1,500 American adults (with oversamples in California, Florida, New York, and Texas), 730 teachers, and 800 parents (with oversamples of Black, Latino, and AAPI parents)
*These states were selected because they serve high populations of Black and Latino students and students from low-income backgrounds.

