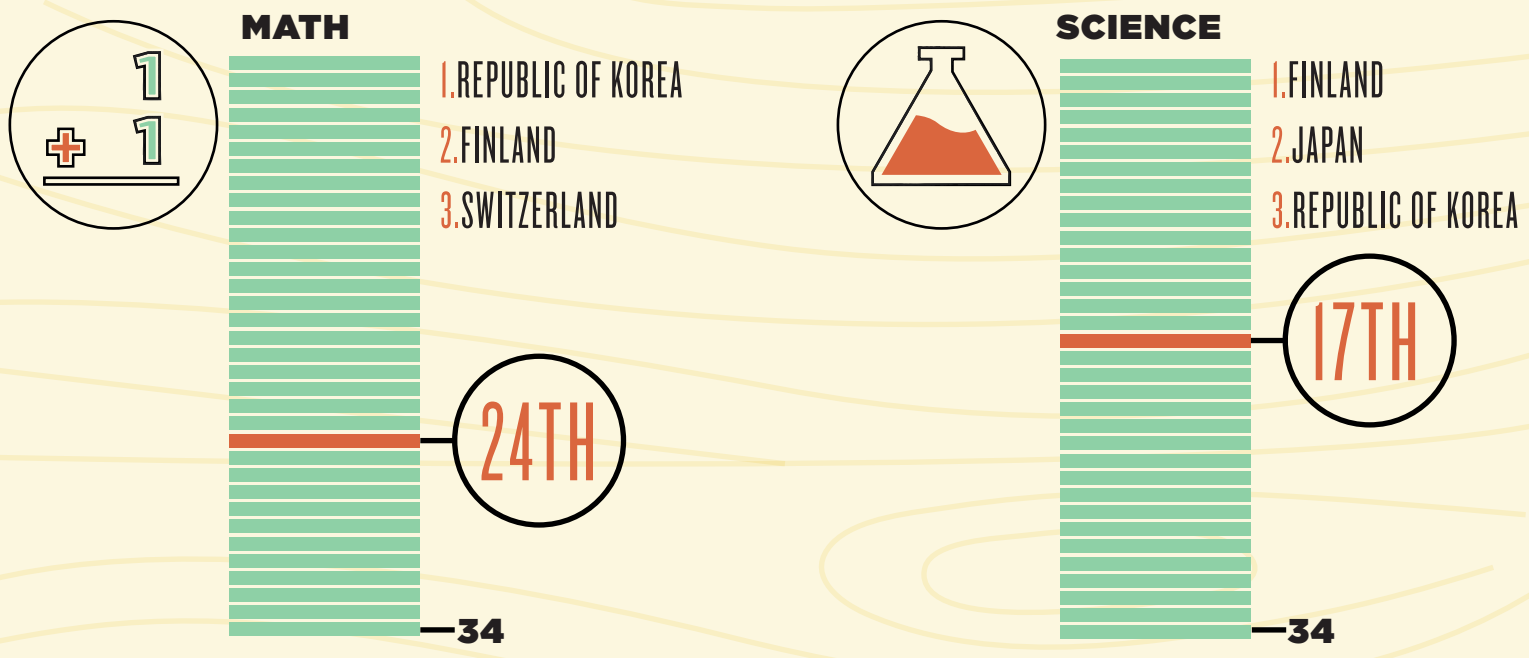
STEM FOR THE AGES

THE VALUE OF EDUCATING STUDENTS IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS

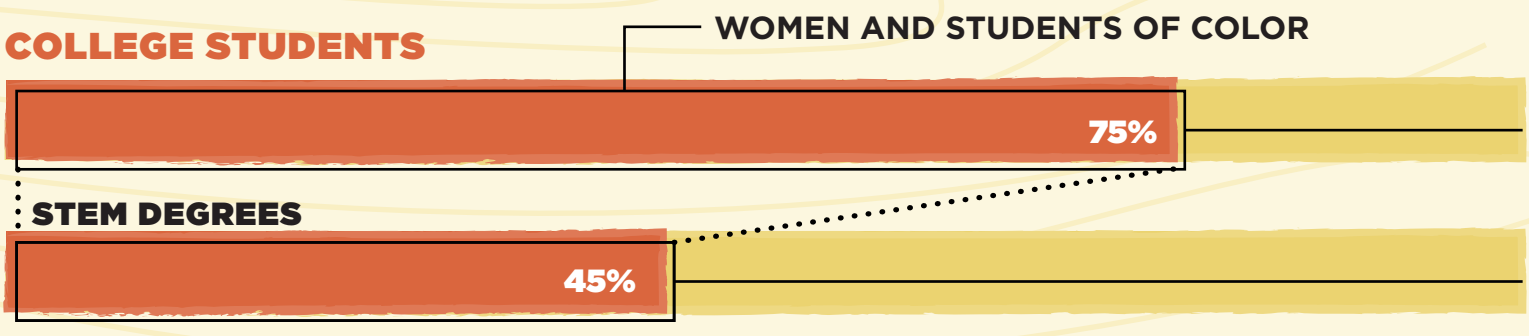
80%

80% of the fastest growing occupations in the United States depend upon mastery of mathematics and scientific knowledge and skills, but students are not currently equipped to satisfy this growing need.

ON THE 2009 PROGRAM FOR INTERNATIONAL STUDENT ASSESSMENT (PISA), THE U.S. RANKED:

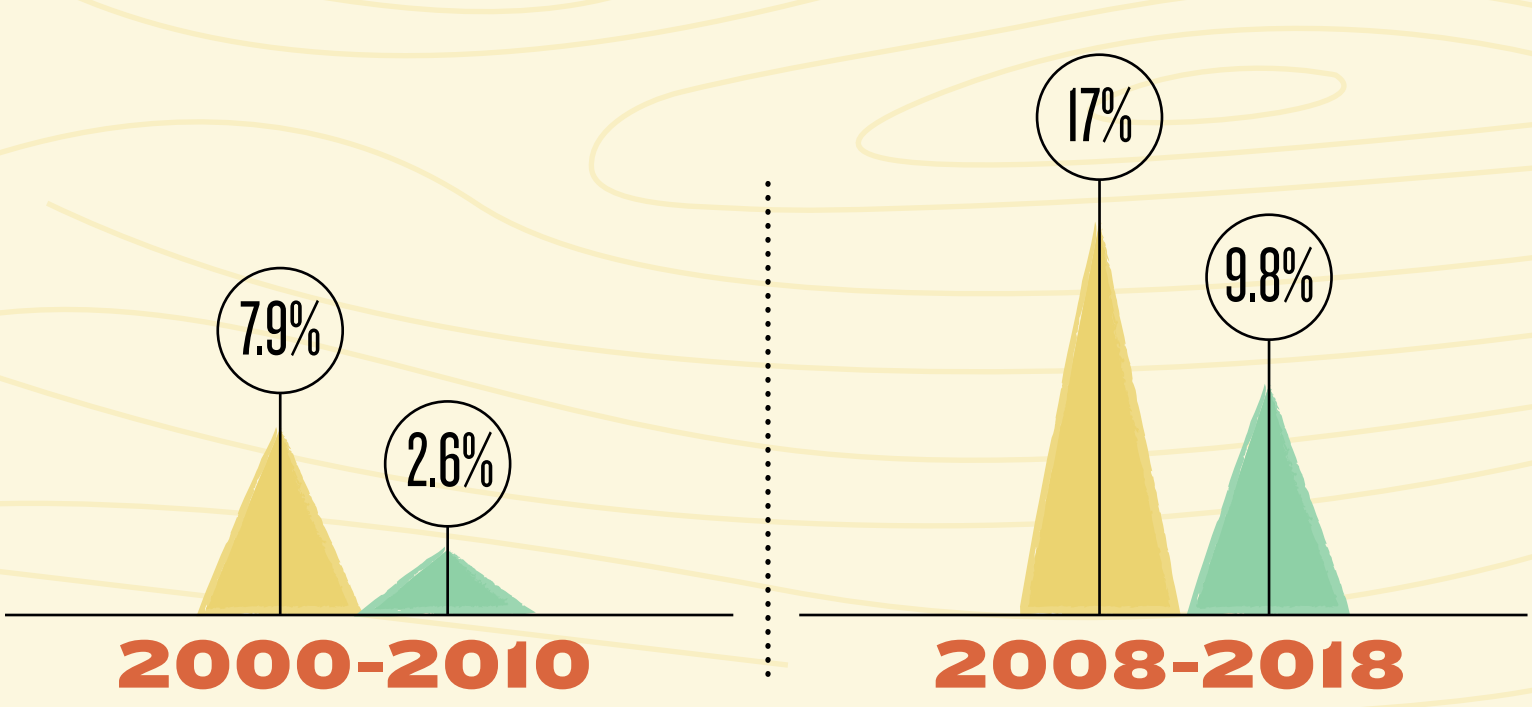


75% of all college students are women and students of color, but they represent only 45% of STEM degrees earned each year.



WHY IT MATTERS

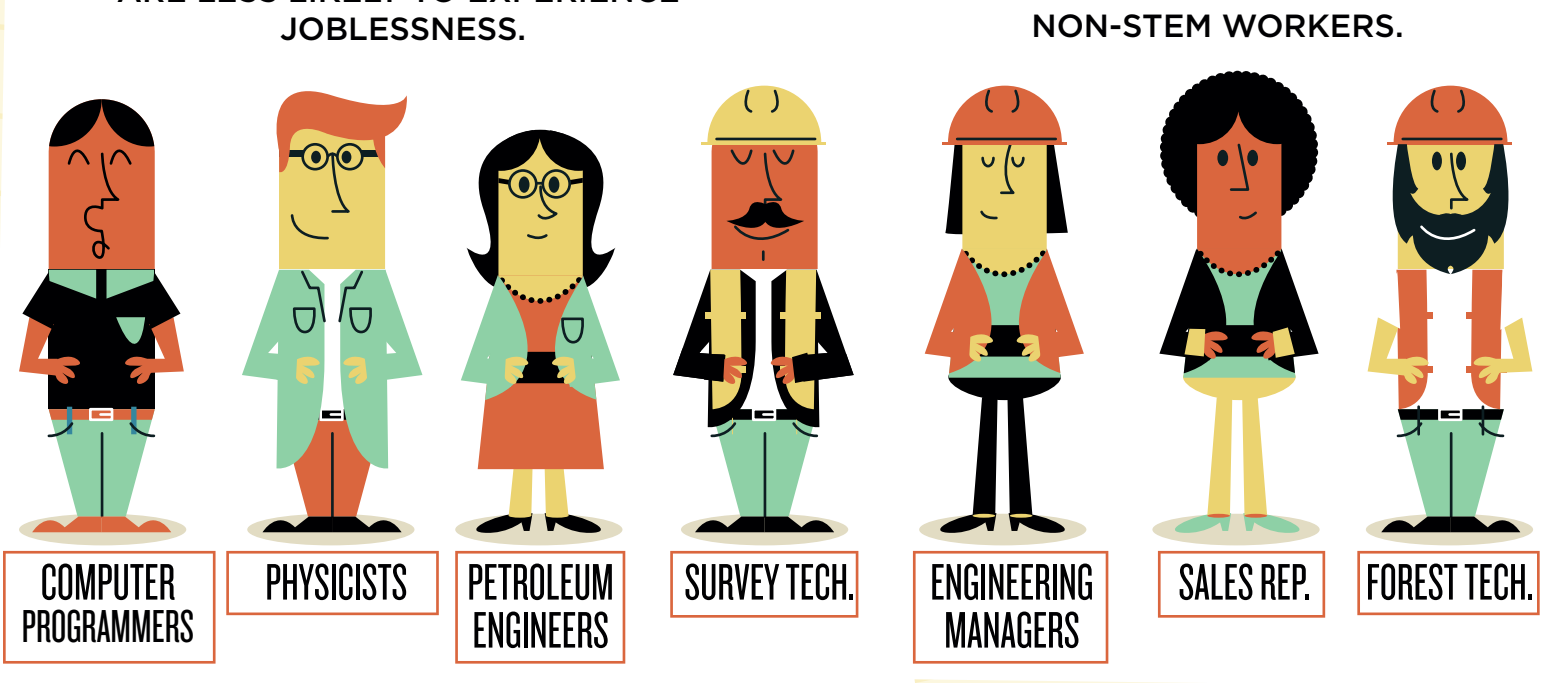
OVER THE PAST 10 YEARS, GROWTH IN STEM JOBS WAS 3X GREATER THAN THAT OF NON-STEM JOBS.



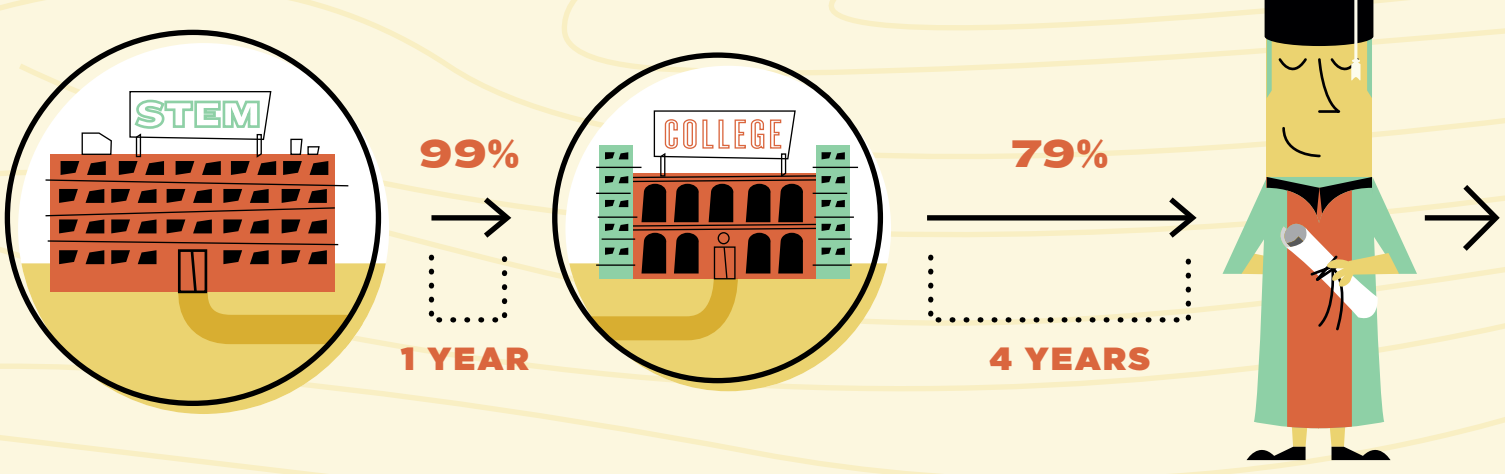
WORKERS WHO HOLD STEM DEGREES ENJOY HIGHER EARNINGS REGARDLESS OF OCCUPATION AND WORKERS IN STEM OCCUPATIONS:

ARE LESS LIKELY TO EXPERIENCE JOBLESSNESS.

COMMAND 26% HIGHER WAGES THAN NON-STEM WORKERS.

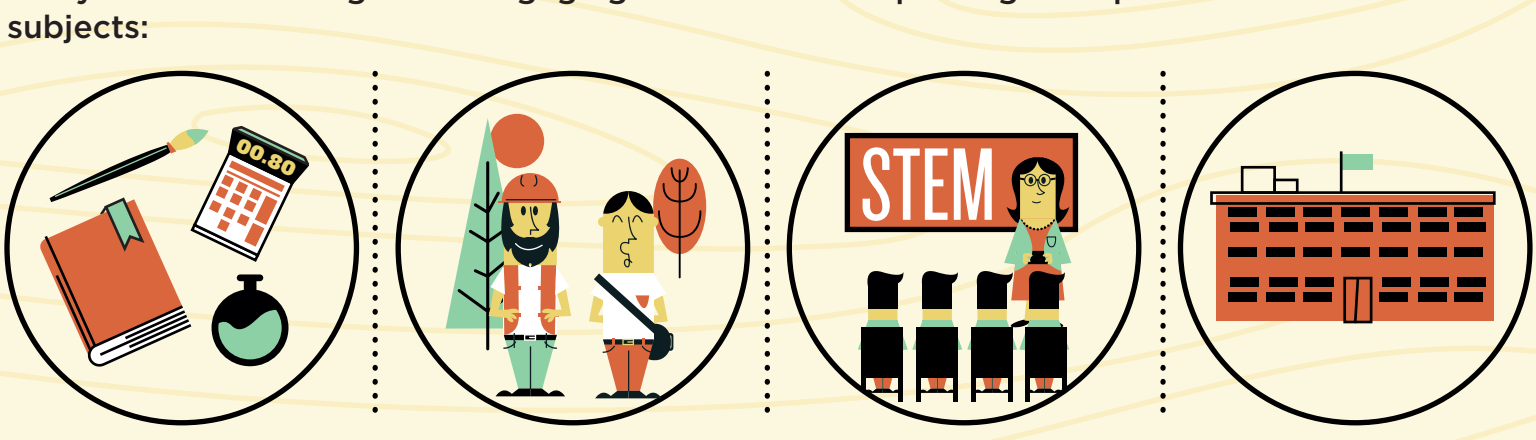


99% of STEM school graduates enroll in college within one year of high school while 79% complete college in four years.



WHAT WE CAN DO

Triggering students' interest in pursuing more technical fields begins in schools. There are many effective strategies for engaging students and improving their performance in STEM subjects:



Interdisciplinary project-based learning

Real-world learning through internships, mentors

Teachers trained to work in specific STEM disciplines

Opportunities for college instruction during high school years

EVEN THOSE WHO DO NOT PURSUE WORK IN STEM FIELDS WILL NEED SOME LITERACY IN THESE AREAS IN ORDER TO NAVIGATE ISSUES SUCH AS POLICY, CLIMATE, HEALTH, AND TECHNOLOGY.

STEM KNOWLEDGE EXTENDS BEYOND A CAREER; IT'S KNOWLEDGE FOR LIFE.

TO LEARN ABOUT INNOVATIVE STRATEGIES FOR STEM TEACHING AND LEARNING, GO TO: EDUTOPIA.ORG/STEM-STRATEGIES

Sources Bill and Melinda Gates Foundation | Career Academy Support Network | Journal of Engineering Education | National Research Council | Organisation for Economic Co-Operation and Development | President's Commission on STEM Learning Engagement | President's Council of Advisors on Science and Technology | The Information Technology and Innovation Foundation | U.S. Department of Commerce | U.S. Department of Labor Bureau of Labor Statistics

edutopia

SCHOOLS THAT WORK

A COLLABORATION BETWEEN EDUTOPIA AND COLUMN FIVE