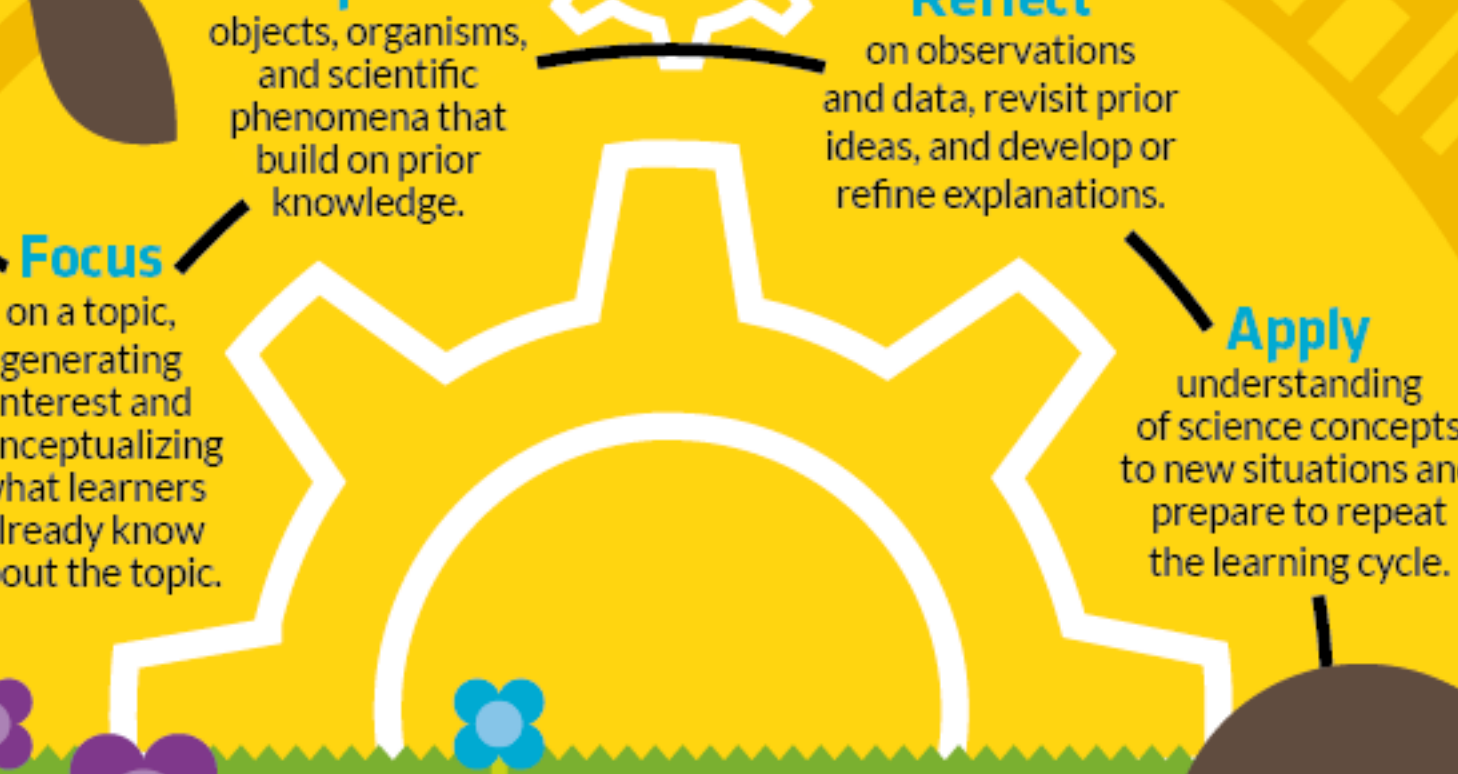


# Learning Science Through Inquiry

Paving the path to success

## Ada learns science through inquiry

Her science lessons use the **FERA** learning cycle.



Children can learn problem-solving skills using methods similar to the ones scientists employ that will lead them through parallel stages of discovery.

At a young age, Ada learns to:

- Develop her own questions.
- Collect evidence.
- Form a decision.
- Construct explanations.
- Communicate logically and clearly.

Ada's K-8 inquiry-based science classes have prepared her to succeed in high school biology, chemistry, physics, and Earth and space science.

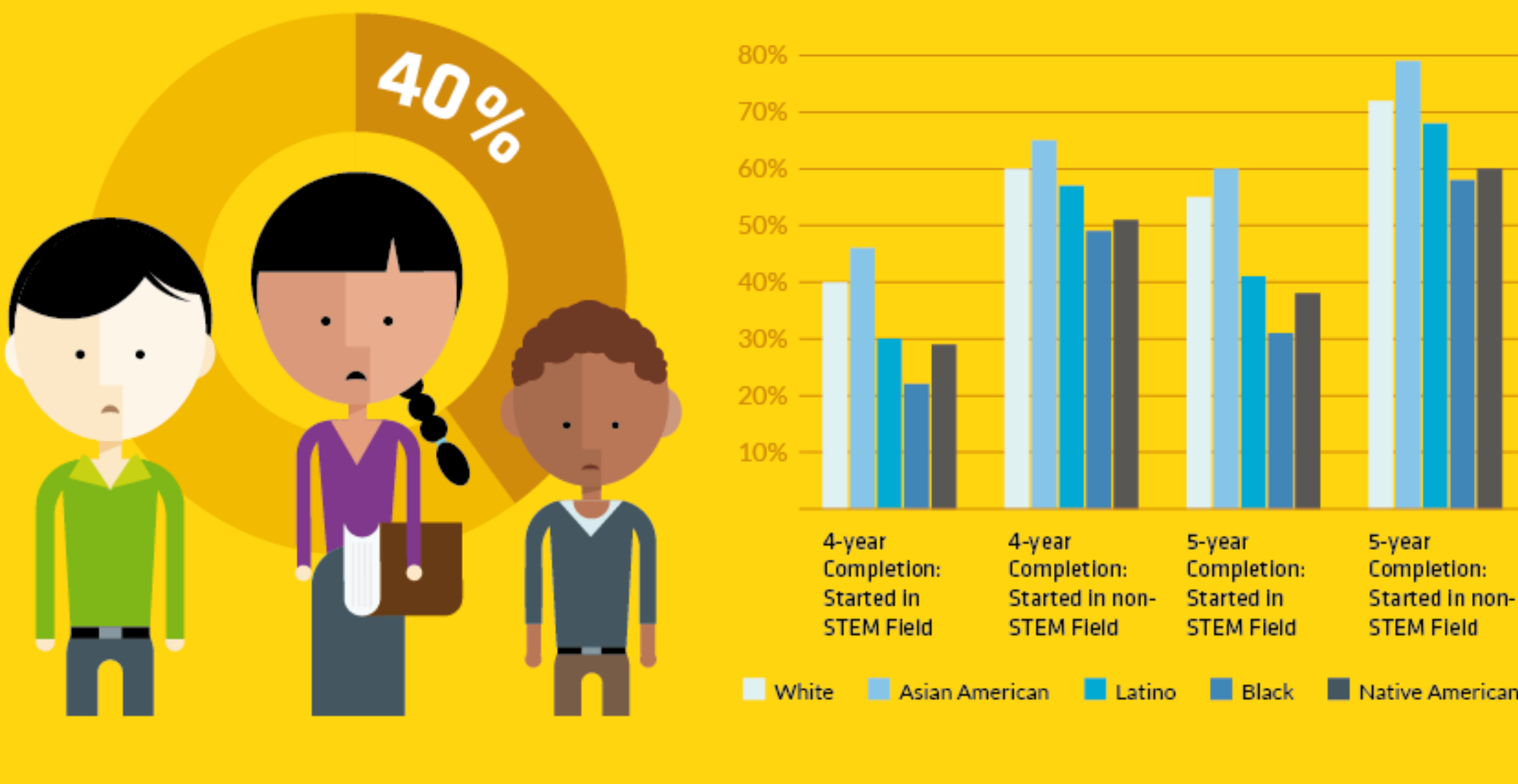
Ada enjoys science and excels in class

**STEM MAJORS**  
Engineering  
Computer Science  
Aerospace  
Biology  
Botany  
Genetics  
Neuroscience  
and many more...

Ada majors in science in college

## Ada's friends are not so lucky...

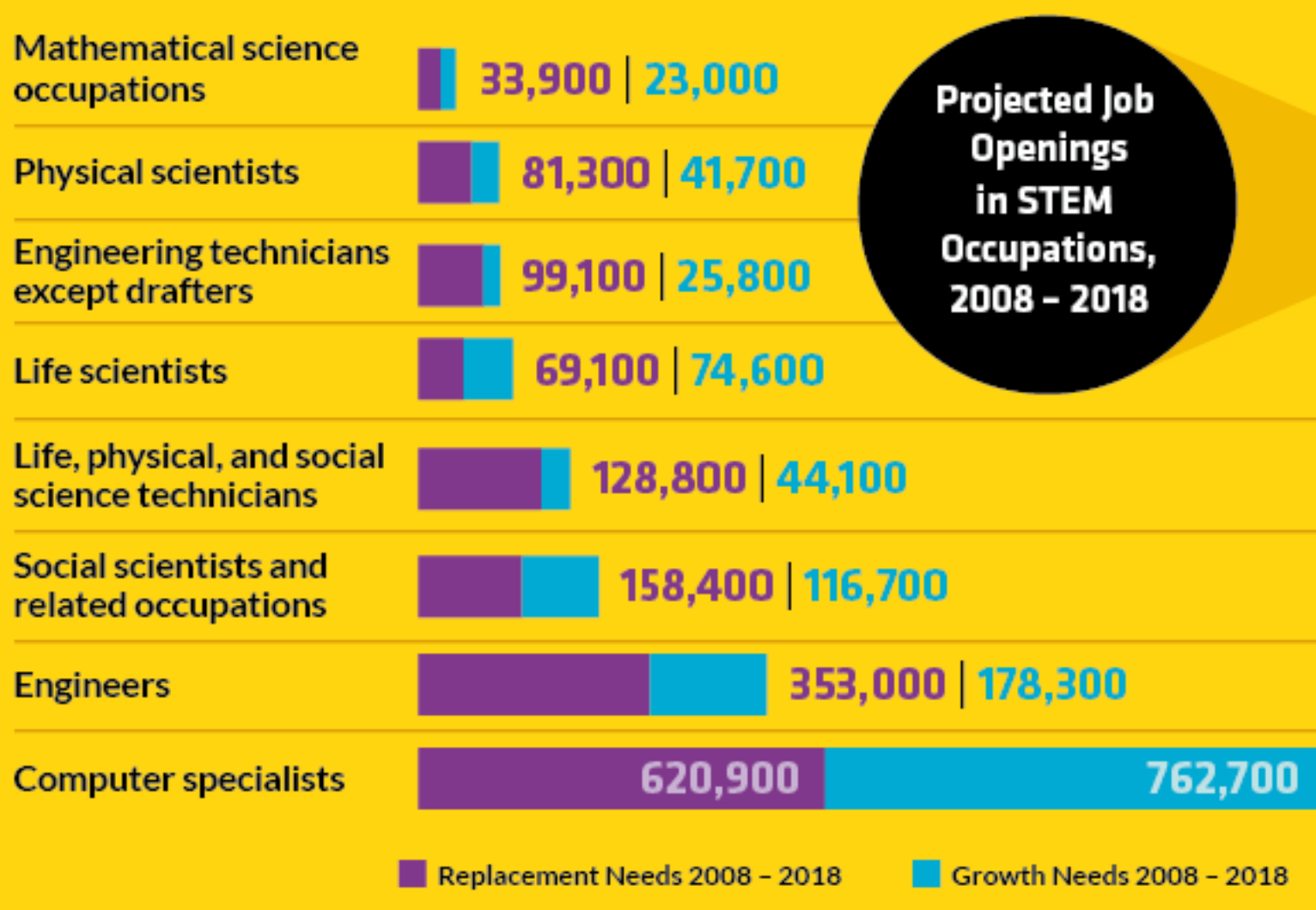
Retention rates in STEM majors are low. Fewer than 40% of students who enter college intending to study a STEM field actually end up doing so.



## Ada graduates ready for the workforce

### STEM career choices: average yearly salaries

High school diploma or GED	Associate's degree	Bachelor's degree or higher	PhD or professional degree
Payroll Clerk \$38,080	Health Tech \$41,830	Loan Officer \$67,960	Veterinarian \$82,040
Airfield Operations Specialists \$49,710	Radiology Tech \$56,760	Computer Programmer \$76,010	Astronomer \$96,460
Gas Plant Operator \$59,870	Registered Nurse \$69,110	Electrical Engineer \$89,200	Pharmacist \$111,570
Nuclear Tech \$67,520	Computer Systems Analyst \$82,320	Petroleum Engineer \$138,980	Oncologist \$266,000



Half of all STEM jobs don't require a Bachelor's degree and pay on average \$53,000. That's 10% higher compared to non-STEM jobs with the same educational requirements.

Economic forecasts project a demand for more than one million additional professionals with a degree in science, math, or engineering by 2018.

## 400 surveyed senior HR professionals

ranked **CRITICAL THINKING** as the most important skill their employees will need in the next five years.

**93%** of business and nonprofit leaders are primarily interested in a job candidate's "demonstrated capacity to think critically, communicate clearly, and solve complex problems."

## Ada's background helps her make informed choices about health for herself and her family.



Being scientifically literate helps her be a thoughtful global citizen.

flu vaccine

healthcare

exercise

nutrition

Carpools to work, thereby reducing weekly carbon output by **20%**.

Conserves water: **36** states are currently dealing with water shortages.

Stays up-to-date and well informed about science-based policy issues.

## Because Ada has a STEM job, she makes 33% more money compared to other women in non-STEM industries.

Average hourly earnings: STEM vs. non-STEM jobs

Job Type	Men	Women
STEM jobs	\$36.34	\$31.11
Non-STEM jobs	\$24.47	\$19.26

Men in STEM jobs make 25% more money compared to other men in non-STEM industries.

An inquiry-based education paves the way for effective learning in science.



Science and Technology Concepts™  
Transforming Science Education

Smithsonian Science Education Center

For more information about STC™, visit our website.  
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