



# Chemistry Club Provides Transformative Academic Experiences for Students at Burton Hill Elementary

Authors: Mark Sayegh, Tatum Harvey, Aidan Meek, Madison Price, Dylan Walters, Emma Wilner, Sunny Yusufji  
Faculty: Julie Fry, Heidi Conrad, Kayla N. Green, Texas Christian University

## Overview

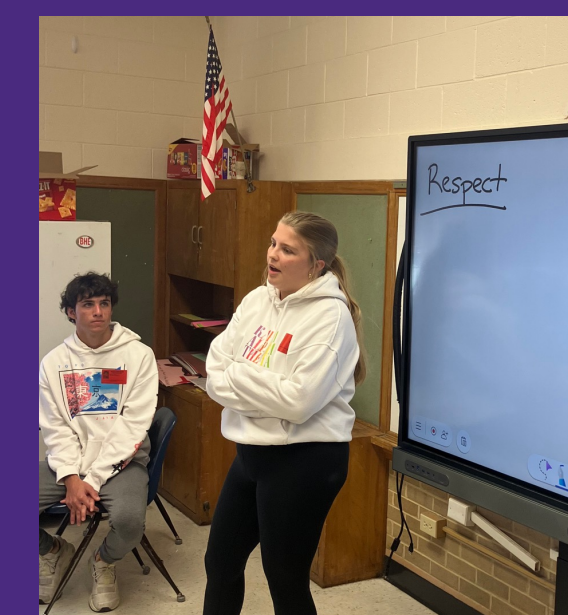


- Host weekly science club
- 16 to 30 3rd-5th graders

### Goals

- Create hands-on learning experiences, foster scientific curiosity, and teach students to learn to think like a scientist through engaging experiments in chemistry, physics, and biology.
- Offer mentorship, build confidence, and encourage students to pursue a career path in STEM.

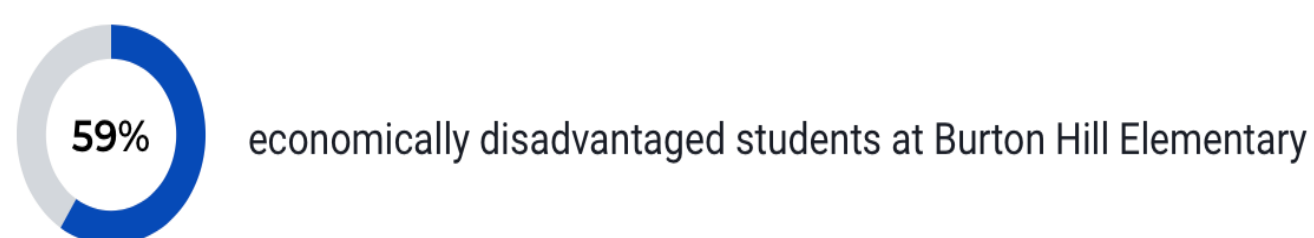
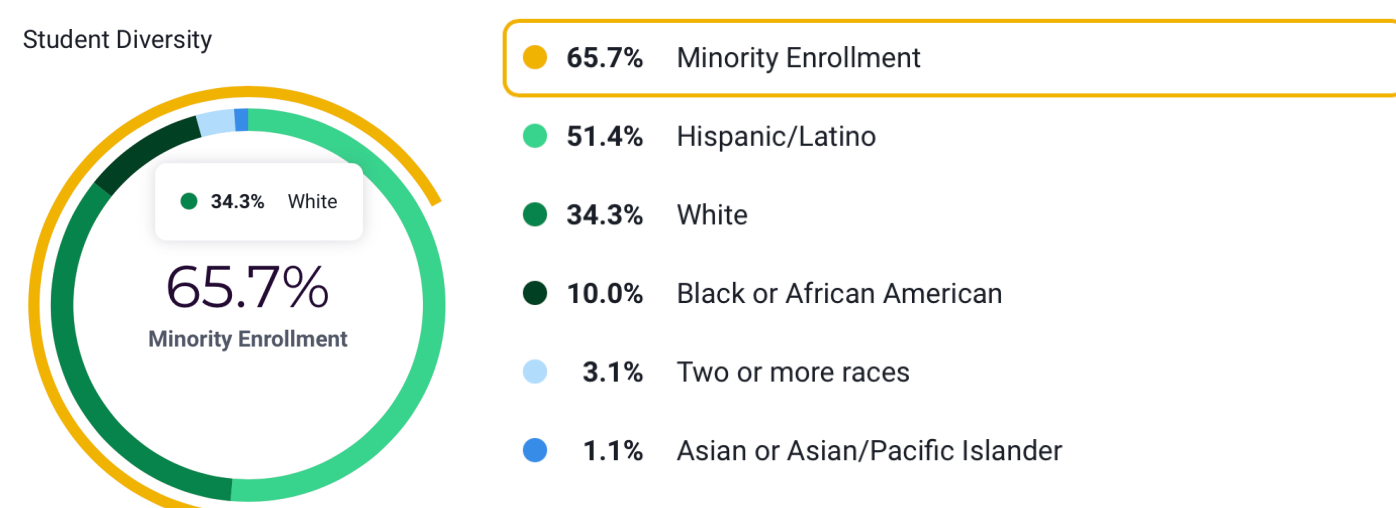
“The kids gain a lot from [Science Club] and they truly love it. They have grown in their personal life tremendously which has been awesome to see as a teacher.” – Mrs. Barbara Stewart



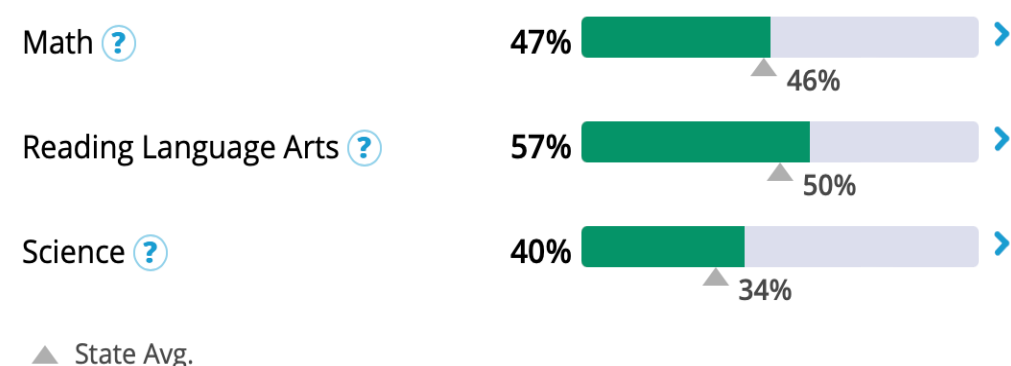
## Academic Impacts

- “We have seen the kids a lot more engaged with our content and it has really **benefited them academically.**”
- Students are able to grasp a better understanding of content through **hands-on experience**
- Students are exposed to additional content, leading to **improved performance in the science STAAR exams**
- They become “**more confident** in their skills as **independent students** and allows them to think in new ways.”

## Background of the Community



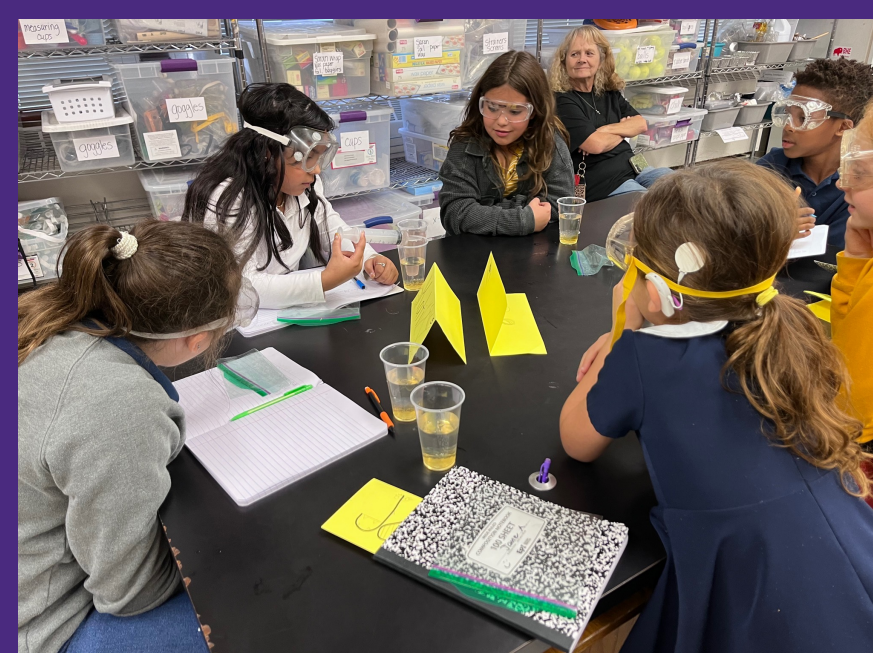
- In early grades, the focus on learning is reading and math while science is put on the back burner
- The 5th grade science curriculum is **only 65%** of what they need to know for the STAAR test
- We aim to educate, expand, and build career passion in the field of STEM for each student.



- 40% of students test at or above the proficient level of science.

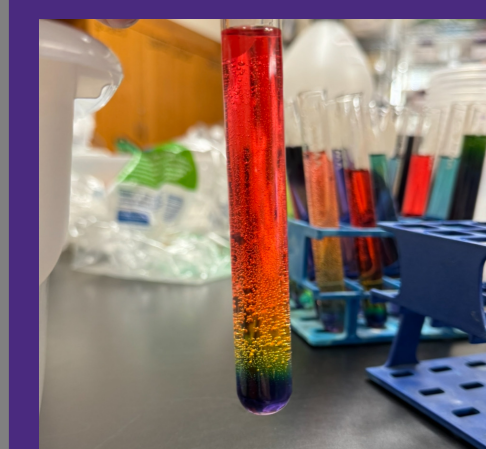
## Project Description

- Students keep detailed records of their experiments in their lab notebooks, including safety, materials, procedure, hypothesis, and observations.
- Teach the students about the science happening during each experiment
- Encourage class participation to keep the students engaged in the activity.
- “Word of the day” focuses on teaching the kids valuable life lessons such as perseverance, respect and kindness.
- Mentorship initiative: TCU volunteers lead by example, showing the students that pursuing a career in STEM is possible no matter who you are or where you come from



## Notable Experiments

- Rainbow Test Tubes
- Homemade Ice cream
- Homemade Orbeez
- Coca-cola and mentos
- Soda Can Crush
- The Clock Reaction



## Future Direction

- Continue attending Burton Hill next year to further expose the students to science and mentor them
- Methods are in place to ensure that the science club will continue to grow

## Personal Impacts

- Students “admire the volunteers and have a lot of fun doing experiments with college students” which **fuels their curiosity** to learn more.
- Engagement with the club **boosts confidence** among current students
- Encourages peers not in the Science Club to sign up and become more **involved with their education**
- “Last semester we had 25 kids sign up for it each week and almost the same amount on a waitlist! The students at Burton Hill Elementary love this club and it only grows in popularity each year”.
- “Fun”, “Engaging”, “Educational”, and “Happy” were a few words that students used to describe Science Club.

## Acknowledgments and References

Mrs. Barbara Stewart  
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 US News; GreatSchools.org