

TEALS Program



Henry Ford Academy, Detroit MI

Building equitable, inclusive computer science programs in high schools

Equip all students for the future with CS

High school students who have access to inclusive and equitable computer science (CS) gain entry to a pathway to economic opportunity that is currently out of reach for many students.

Partner with the TEALS Program

TEALS (Technology Education and Literacy in Schools) is a Microsoft Philanthropies program that builds sustainable computer science programs in high schools, with a focus on serving students excluded from learning CS because of race, gender, or geography.

The TEALS Program:

- ✓ Helps classroom teachers learn to teach computer science on their own by pairing them with industry volunteers and proven curricula
- ✓ Engages students who previously didn't have access to CS education, increasing the likelihood that they'll continue their CS education and be more prepared for future employment

TEALS provides

- Sustained access to volunteers with deep knowledge of CS and industry experience
- A supportive community that allows teachers to build their subject matter knowledge
- Rigorous curricula and resources approved by CS educators and industry professionals
- Resources and training to develop diverse and inclusive CS classrooms
- Personalized support from a dedicated Regional Manager
- Remote or in-person volunteer support



Brooklyn College Academy, Brooklyn NY

Learn more about bringing the TEALS Program to your school at

Microsoft.com/TEALS

Since 2009, nearly 93,000 high school students have received CS education through the TEALS Program.



CS completely transformed my enthusiasm for my career in education. Every day, I wake up excited not only to teach, but to learn alongside my students.

– Bow Brannon III,
Austin, TX, TEALS teacher

Impact on students



52%



of TEALS students see themselves studying CS after high school.



83%



of TEALS students believe that CS allows them to be creative.



72%



of TEALS students believe people like themselves can be computer scientists.

The TEALS program serves 17,000 students at 500+ high schools in the United States and in British Columbia, Canada.

(During the 2021-2022 school year)



*2020-21 TEALS student exit survey

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How TEALS supports your school

	Co-Teach model	Lab support model	Graduation
Who's doing the teaching?	Teacher: 10 → 80% Volunteer: 90 → 20% 	Teacher: 80 → 99% Volunteer: 20 → 1% 	Teacher: 100%
Teacher's role	<ul style="list-style-type: none"> Classroom and teaching team management Learning computer science Completing all assignments Leading lessons at their capacity 	<ul style="list-style-type: none"> Classroom and teaching team management Leading 80%+ of lessons Continue refining CS understanding 	<ul style="list-style-type: none"> Teaching computer science independently of TEALS
Volunteer team engagement	4-5 days a week	2-5 days a week	Schools teach CS on their own.

Remote instruction

TEALS offers options for remote or in-person volunteer support. Using remote instruction, TEALS volunteers participate using video conferencing software that is chosen by the school. The remote option helps engage volunteers with long commutes to schools and is a great choice for communities with limited local technology professionals.



Smithville High School, Smithville TX

What your school needs to teach remote:

- Sufficient bandwidth, headsets, and webcams to connect students with volunteers
- TEALS training for teachers and their teaching teams to prepare for remote instruction
- Enlist a partner IT liaison for initial installation and ongoing support



I tell my students, 'I'm not an expert. I'm learning computer science with you!' My TEALS class is one big collaboration—and it's fun."

– Elaine May,
Warwick, RI, TEALS teacher

Making CS diverse, equitable and inclusive

TEALS collaborates with partner schools to build sustainable, diverse, and equitable computer science education pathways.

TEALS works with schools to create an action plan and make progress towards achieving commitments in the following:



Millennium High School, New York NY

Inclusive learning space	Diversity in enrollment	Inclusive instruction
Creating learning environments that are accessible and welcoming of students' identities, backgrounds, differences and perspectives without barriers or judgment.	Ensuring CS courses and programs have student enrollment rates that reflect the demographics of the larger school or community population, particularly in terms of race, ethnicity, gender and disability status.	Instructional practices and learning experiences that actively consider the context of youth in terms of interests, identities, cultural and linguistic practices, and histories.

EXAMPLES OF SCHOOL COMMITMENTS

<ul style="list-style-type: none"> Incorporate inclusive signals such as posters of role models from different backgrounds or displaying computer science in a creative way 	<ul style="list-style-type: none"> Create awareness of CS at your school by discussing how CS relates to other subjects or host a session to debunk CS myths 	<ul style="list-style-type: none"> Emphasize student engagement with peer and buddy programming and providing students the choice to help choose projects
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EXAMPLES OF TEALS RESOURCES

<ul style="list-style-type: none"> Provides poster examples for teachers and administration to place around the classroom and school 	<ul style="list-style-type: none"> Provides examples of CS "Culture Day" lessons incorporating volunteers to share with class and larger school population 	<ul style="list-style-type: none"> Provides lesson plans that include opportunities for groupwork as well as multiple project options
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TEALS supported courses

	Introduction to Computer Science	AP Computer Science Principles	AP Computer Science A	Computer Science Topics
Description	A semester or full-year course that explores a variety of basic computational thinking and programming concepts through a project-based learning environment.	A full-year course covering the fundamentals of computing, including creativity, programming, and global impact.	A full-year course focused on object-oriented programming and problem solving in Java. Equivalent to a first-semester, college level course in computer science.	A full-year course that focuses on specific applications of computer science fundamentals and can be taught after taking one CS course such as Intro to CS, CS Principles, or CSA.
Models Supported	Co-Teach and Lab Support	Lab Support	Co-Teach and Lab Support	Co-Teach and Lab Support
Where can I learn more?	aka.ms/TEALSintro	aka.ms/APCSPrinciples	aka.ms/APCSA	aka.ms/CStopics

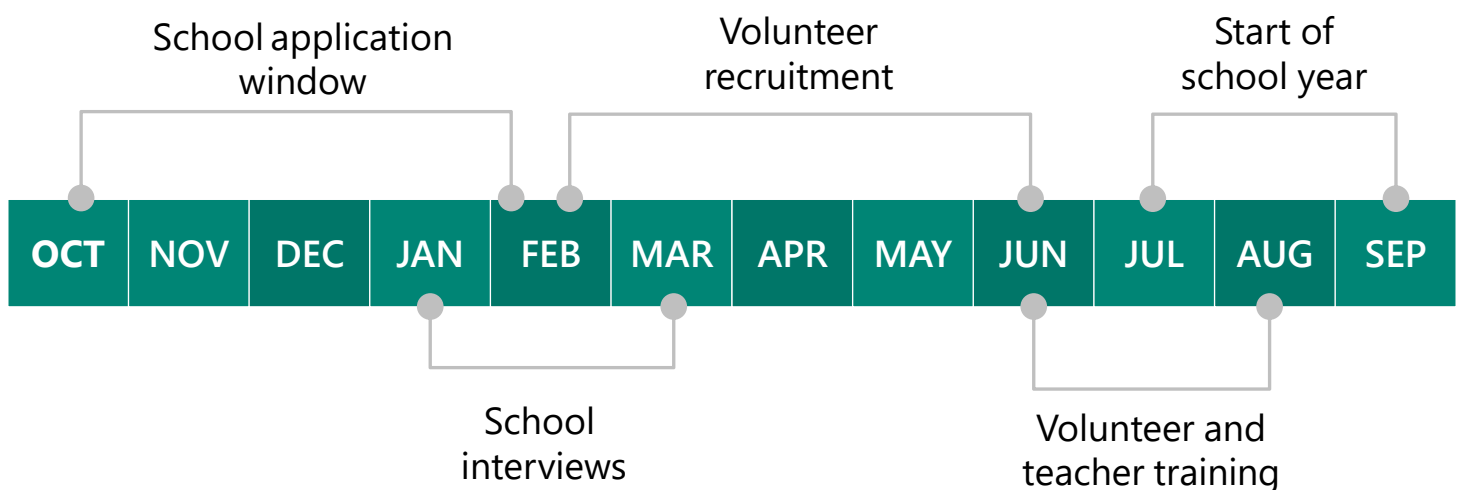
“ I learned so many things from my CS class I wouldn't have gotten from books or on my own. Our TEALS volunteers were actual programmers who shared what they were working on at work and even questions they ask during interviews. It was like I got real world experience in class.”

– Saad Rafiq,
Austin, TX, TEALS student

Partnership requirements

Potential school costs	<ul style="list-style-type: none"> • Costs incurred by volunteers (e.g. background check) • Curricular resources (if using a partner curriculum provider that charges a cost) • Remote teaching equipment (as applicable)
Class meeting time	<ul style="list-style-type: none"> • First period of the day
Diversity, Equity, and Inclusion	<ul style="list-style-type: none"> • Schools make Diversity, Equity and Inclusion commitments
TEALS volunteer recruitment	<ul style="list-style-type: none"> • Engage with the local community and your school's/district's network to share this volunteer opportunity
Data sharing	<ul style="list-style-type: none"> • TEALS classroom enrollment numbers • Student and teacher course experience survey • AP scores (if applicable)
Recruit classroom teacher	<ul style="list-style-type: none"> • 2+ years teaching experience • Attends required curriculum training and TEALS training • Commits to becoming a CS champion in the school
Identify school staff partners	<ul style="list-style-type: none"> • School administration contact • District contact (as applicable) • IT liaison (as applicable)

TEALS Program calendar



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TEALS Program

Putting high school students on a pathway to economic opportunity through equitable, inclusive computer science



Synergy Quantum Academy, Los Angeles CA