



Washington Mathematics Science Technology Public Charter School



WORLD SMARTS STEM CHALLENGE



A NEW KIND OF INTERNATIONAL VIRTUAL STEM COMPETITION. Today's youth need skills in STEM, innovation, and collaboration across cultures. The World Smarts STEM Challenge pairs high school teachers and students from different countries on gender-balanced, collaborative teams. Teams compete to create the best STEM (science, technology, engineering, and math) solution to global problems inspired by the UN Sustainable Development Goals.

The challenge builds skills in innovation, investigation, problem-solving, technology literacy, and collaboration with people from different backgrounds. The purpose is to increase opportunities for diverse students—boys and girls—to be equipped with the skills and confidence needed to be successful in STEM careers.

IREX PROVIDES



Teacher and student guides for a structured, 10-week curriculum flexible to use in class or after school



Professional development training for teachers



Technology support, including an online collaborative platform and virtual lesson plans



Expert coaching throughout the competition period



An opportunity to see what STEM can really do by supporting the winning team to further develop, prototype, pilot, and market their idea



It's going to help us in any STEM-related career. If you want to go to college and become an engineer... you will have to collaborate, brainstorm ideas, and come up with a solution.

-Kevin, student at High Point High School

ABOUT THE WORLD SMARTS STEM CHALLENGE

AUGUST

MARCH



TEACHER
DEVELOPMENT



THE CHALLENGE



VIRTUAL STEM FAIR



FINALIST CONTEST
AND SHOWCASE

IMPACT FROM YEAR ONE

250 high school students' passions ignited for STEM subjects in Washington, DC, Prince George's County, MD, and Ghana.

30 teachers completed in-person training in Accra, Ghana. The training built capacity in problem-based STEM teaching strategies. 100% of teacher respondents said they would include them in their everyday classroom with their students.

65% of US teams from schools with over half of the student body on free/reduced lunch (five teams from schools with 98% to 100% on free/reduced lunches).

34 teachers and 32 high schools from the US and Ghana participating.

100% completion and retention of all secondary student teams in the US and Ghana whose teachers received in-person training.

One student team of eight
and one teacher from the US



One student team of eight
and one teacher from
Ghana



Complete World Smarts
STEM Challenge Team of 16
students and two teachers



IREX is an independent nonprofit organization dedicated to building a more just, prosperous, and inclusive world by empowering youth, cultivating leaders, strengthening institutions, and extending access to quality education and information. Founded in 1968, IREX has an annual portfolio of over \$80 million, offices in 20 countries, and a global staff of 400. We work in more than 100 countries worldwide.