

Case Study: walkSTEM@Dallas Arts District

In 2017, talkSTEM debuted two walkSTEM experiences in the Dallas Arts District that center around elementary and middle school math concepts. The walks are free of charge and take place in public spaces so that all people can take advantage of the experience. Both walks were designed by Dr. Glen Whitney, Founder and then President of the National Museum of Mathematics in New York City, and experts in the STEM education field. Stops in the Arts District include Booker T. Washington High School for the Performing and Visual Arts, the Morton H. Meyerson Symphony Center, and the Hunt Oil Building. As a resource-rich neighborhood, the Dallas Arts District contains a wealth of community partners with missions that work in synergy with the mission of walkSTEM.

walkSTEM in the Dallas Arts District was launched in conjunction with talkSTEM's Pi Day Math festival. walkSTEM's community partner, AT&T Performing Arts Center (ATTPAC) assis ted by providing free parking to all walkSTEM participants. Given the great success of the Pi Day Math Festival in 2017, walkSTEM was approached by ATTPAC with a partnership request for the Pi Day Math Festival in 2018. ATTPAC was a full partner in the 2018 festival.

walkSTEM organized ten docent-led walkSTEM@Dallas Arts District walks to take place during the festival; each walk was at capacity and there was a waitlist. walkSTEM docents are educators from area schools, universities, and informal learning spaces. Docents received training from Dr. Whitney and a stipend for their time spent in training and leading walks. Following the launch, guided walks were offered on the first Saturday of each month throughout 2017.

All stops in the Dallas Arts District walk were professionally filmed and uploaded to the walkSTEM Academy YouTube page. walkSTEM

Academy videos allow individuals to take self-guided walkSTEM tours of the district whenever guided-tours are not offered. Moreover, videos enable students, educators, and parents to experience the entire walk virtually. Support for the creation of these videos came from the City of Dallas Office of Cultural Affairs.

walkSTEM provided docent-led experiences for several school and nonprofit groups, including the Urban League of Greater Dallas, who then went on to visit one of the Arts Districts museums. Moreover, over 895 schools scheduled field trips to the DMA in 2017, where they were able to experience walkSTEM as part of their tour. Students are able to view the walkSTEM Academy video based on an artwork located right outside the

Watch Miguel Covarrubias' Genesis, The Gift of Life through a mathematical lens.

Similarly, visitors to the Nasher Sculpture Center, Wyly Theater, Margot and Bill Winspear Opera House, Meyerson Symphony Center, and Klyde Warren Park can take advantage of the walkSTEM stops situated at each of these sites.

HOW WALKSTEM@DALLAS ARTS DISTRICT HAS IMPACTED THE COMMUNITY

walkSTEM docent-led walks:

- O 750 people served at Pi Day Festivals in 2017 and 2018.
- O 250 people served during free first Saturday walks in 2017 (April -December).

Tours for nonprofit organizations and schools:

- O Urban League of Greater Dallas
- So SMAART Program of Trinity Chapter of The Links, Incorporated
- O Girl Scouts of Northeast Texas
- Family Gateway
- Irma Lerma Rangel Young Women's
- 0 Leadership School
- Family Gateway (A Day to Play community
- O Dallas Theater Center (Family Day event)

Educator training:

- 60 Dallas Museum of Art docents
- O Region 10 teachers (for credit, professional development workshop)
- Teach for America Education team at Trinity River Audubon Center, Dallas
- STEM Academy for Dallas ISD Science teachers at SMU Simmons

museum's doors.



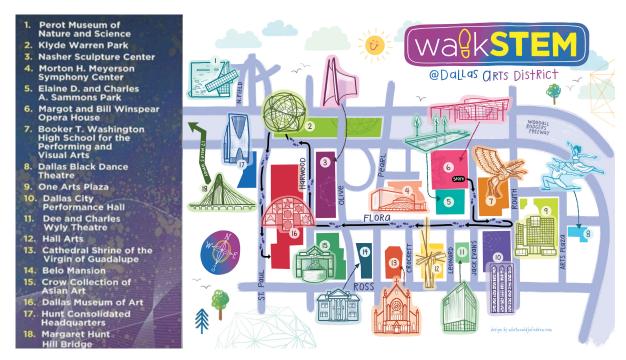
walkSTEM@Dallas Arts District led to many valuable partnerships and opportunities to expand the walkSTEM mission. walkSTEM received a second grant from the City of Dallas Office of Cultural Affairs in 2018 to create detailed educator guides for each stop in the Arts District. This grant was focused on the goal of providing equitable educational opportunities in Dallas. These guides contain activity sheets that educators can use before, during, and after the walk or virtual field trip, and are available as free downloads on the talkSTEM website. The Dallas ISD STEM department is actively encouraging all teachers to utilize these resources. The talkSTEM team presented these and other resources to about 700 Dallas ISD STEM campus leadership personnel (PreK-12) in September, 2018 by invitation of the Dallas ISD STEM leadership team.

Additional educator development experiences at the Dallas Arts District included a workshop for 50 Teach for America teachers who will be teaching at DISD and at Fort Worth ISD schools during the 2018-2019 school year. Held at walkSTEM's community partner space, Dallas Museum of Art, the workshop allowed teachers to experience walkSTEM methodologies and learn how to apply it to their classrooms. walkSTEM also collaborated with Texas Region 10 schools to deliver a teacher workshop in September, 2018. Region 10 is is comprised of 80 public school districts and 35 public charter schools across Kaufman, Rockwell, Hunt, Fannin, Grayson, Dallas, Collin, Ellis and a portion of Van Zandt counties. Moreover, high school girls from Irma Lerma Rangel Young Girls Leadership School, an all-girls school in Southern Dallas, participated in summer activities in the arts district through walkSTEM.

At the request of the DMA Education Department, DMA docents participated in a walkSTEM workshop in the fall of 2017. A walkSTEM guide for the *Cult of the Machine*, a new exhibition that opened at the museum in September 2018, will be designed in collaboration with museum staff for use in their family and homeschool programming.

The walkSTEM methodology not only provides a valuable experience for students to engage in mathematics in the real world, but it also works in union with museums and cultural institutions.

View the walkSTEM Academy "Dallas Arts District" playlist to see the 18 stops designed for this public space.



WALKSTEM@DALLAS ARTS DISTRICT HANDOUT FOR SELF-GUIDED AND DOCENT-LED TOURS.