



# STARBASE Minnesota

**STARBASE Minnesota is:** a 501(c)3 nonprofit organization, founded in 1993 whose mission is to educate and inspire youth in science, technology, engineering and math (STEM). Since 1993, STARBASE has served over 58,500 Twin Cities' youth. STARBASE is a program of the Department of Defense and Minnesota National Guard who provide a state of the art facility, access to an exciting, technology-rich environment, inkind services and volunteers. STARBASE partners with six area school districts to provide STEM programming; 18 local STEM corporations partner to provide financial/inkind support and volunteer scientist and engineers to programs. In November 2017, STARBASE Minnesota-Duluth began serving the first of approximately 1,200 students each year on the 148<sup>th</sup> Fighter Wing. STARBASE has a 19-member Board of Directors with backgrounds in business, education, military and government. There are 60 STARBASE locations in the U.S.



**STARBASE Minnesota provided:** immersive five-day, 20-25-hour STEM programs for grades 4-5, with authentic and engaging learning aligned to standards. STARBASE also supported STEM learning long after STARBASE through the STARBASE Clubhouse, STEM Pathways initiative and provided volunteer mentors for after-school STEM programs through STARBASE 2.0. STARBASE partners with area colleges and universities to provide field experiences for future educators increasing student and future impact on classrooms exponentially.

### STARBASE served 3,551 students in FY17 from 36 Twin Cities schools:

Male	Female	Low income	ELL	African Amer	Asian Amer	Caucasian	Hispanic	Native Amer	Multi-Racial
49%	51%	60%	28%	25%	17%	25%	17%	2%	14%

### FY17 Student & Teacher Results: (measured by pre and posttests; surveys and evaluations

- 97% students increased knowledge / skills in science, technology, engineering and math
- 94% average pre/post improvement: 4<sup>th</sup> gr:33 percentage point gain; 5<sup>th</sup> gr:33; summer:37
- 97% students reported STARBASE made learning fun; 90% have increased interest in STEM
- 98% classroom teachers reported gains in own knowledge/teaching skills
- 91% teachers rated STARBASE excellent; 8% very good; 100% want to return.
- 8-10 years later, 99% of former STARBASE students surveyed thought STARBASE was valuable learning experience; 83% felt the program helped them understand STEM better and 79% said it increased their interest in STEM; additional positive impacts on graduation and college enrollment. *See full study conducted by Wilder Research.*

### FY17 Educator and Volunteer Participation:

- 101 military volunteered 382 hours at graduations, rocket launches, tours, and as mentors.
- 111 corporate scientists/engineers volunteered 284 hours, demoing “real world” STEM/careers.
- 183 educators participated 3,400 hours in the program, bringing STEM learning back to schools.
- 273 parents volunteered 1,600 hours assisting in the classroom, bringing STEM learning home.
- 64 pre-service teachers in college participated in over 450 hours of observation/field experiences.
- 19 STARBASE Board of Directors members volunteered 510 hours.

### Thank you to STARBASE Minnesota Funders, Donors and Partners in FY17:

Department of Defense; 3M; BAE Systems; Boston Scientific; Delta Air Lines; Ecolab; Microsoft; Pentair, St. Jude Medical; Seagate; Xcel Energy; UTC Aerospace; State of Minnesota and individual donors. Significant inkind products and services valued at \$693,514 donated by Microsoft; over \$14,000 from Stratasy.