## STEAM into Service





By adding art into STEM, we bring five fundamental disciplines (science, technology, engineering, art, and math) together to spark our students' creativity in solving real world problems.

## What is STEAM into Service?

STEAM into Service is a hard science, project based learning initiative led by our professional staff. Through its weekly seminars, the class empowers, teaches, and nourishes our elementary-age students through hands-on learning projects. The program is built around semester-long service projects that engage K–5 students in STEAM (science, technology, engineering, art, and math) lessons as they problem-solve for a need in the community. Each project culminates with a contribution to the community. Students are constantly

encouraged to question, inquire, experiment and discover during our weekly seminars. As they explore and discover different community needs, they are challenged to creatively think about ways to solve and fill some of those needs. Through individual exploration, teamwork and classroom collaboration, students actively engage to find a solution. Often, we bring in professionals who work in the field to help us get an inside look at the process or the target demographic. As they tackle community needs, our students use the engineering design process to develop and test their solutions. The engineering component of STEAM education puts the emphasis on the process and design of solutions and challenges students to constantly assess and adjust their design throughout each task.

## Student Give Back Through:

Establishing a "reading garden" at Knoxville Botanical Gardens and Arboretum

Collecting used shoes

Donating canned food

Making and donating blankets and pillows

Decorating and gifting two rain barrels food to Beardsley Community Farm

Making soup for Ronald McDonald House

Processing food at Second Harvest Food Bank

Donating food from our "urban garden"

Our students are developing the mindset of active community contributors who use knowledge to serve society.

## <u>Unique Experiences</u>

Touring a construction site

Visiting a food lab

Printing with a 3D printer

Learning in an Engineering Lab

Creating structures with an architect's

schematics

Preparing and giving TEDTalks on

Deconstructing media use of imagery

environmental issues

for emotional responses