

## DESIGNING A GARDEN BENCH

### COURTNEY BRYANT & JEFF MATHER, DREW CHARTER SCHOOL

**GRADE LEVEL AND CONTENT:** 2<sup>nd</sup> Grade Engineering Design

#### OVERVIEW

During this project-based learning unit, students participate in the design process to identify and solve a real- world problem at their school – designing and building a garden bench for Drew Charter School's TinkerYard. Students begin the unit by determining the resources needed, interviewing a master gardener, and researching details about garden benches. Then, with the help of a teaching artist, students use perspective drawing to sketch ideas for the garden bench. The unit concludes with students synthesizing drawings from the various groups, constructing the garden bench, and blending the bench with its surroundings.

#### STANDARDS ADDRESSED

**Engineering:** ENGR-Elem4; ENGR-Elem5; ENGR-Elem7; ENGR-Elem8; ENGR-Elem10\*

#### AVAILABLE MATERIALS

- Video of Unit
- Unit Plan
- Design Process Graphic Organizer
- Garden Bench Brief
- Annotated Perspective Image
- Annotated Garden Bench Image
- Annotated Protractor Image
- STEAM Project Mind Map
- Unit Planning Template

#### ABOUT THE TEACHER

*Courtney Bryant is currently a K – 5<sup>th</sup> grade Engineering and Design teacher at Drew Charter School in Atlanta, GA. Ms. Bryant holds a Bachelor's in Art Education from Case Western Reserve University and a Master's in Art Education from Maryland Institute College of Art. She was the Career and Technical Education Teacher of the Year in 2011 and the Elementary Winner for the Technology Association of Georgia's STEM Awards in 2015. She serves as the department chair and a member of the school leadership team.*

#### ABOUT THE TEACHING ARTIST

*Jeff Mather is a community-based public artist & environmental sculptor & teaching artist based in Atlanta. He is a lead artist, co-founder, and board president for the Atlanta Partnership for Arts in Learning. He coaches the designing and building of large-scale architectural sculptures. He is a member of Alternate ROOTS and several of his community-based public art projects have been funded by ROOTS' Community/ Artist Partnership Program. He has also been the lead artist for the On Site/Insight Program, coaching multi-school environmental art partnerships in Atlanta Public Schools.*

\*Standards adapted for the elementary level from the Georgia's middle and high school [engineering and technology standards](#)