# Bridging the Digital Divide through an immersive Design and Math Maker program

A hands-on project-based summer and after-school experience that exposes Black and underrepresented K-12 students to design and math to provide access and pathways to higher education.

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# Diversity and Design Panels and Workshops

Abimbola O. Asojo, Ph.D., AIA, LEED AP

## 2013 DIVERSITY AND DESIGN WORKSHOP

**GOAL:** Expose high school students of color to the design process through an interior design activity.

**DESIGN BRIEF:** Design a collage reflecting the relationship between design and culture.

**CLIENT:** African-American woman of Brazilian descent

#### IMAGES FROM WORKSHOP



## 2014 DIVERSITY AND DESIGN WORKSHOP

**GOAL:** Expose 4th through 12th grade students of color from Minneapolis and St. Paul schools to the design process through an interior design activity.

**DESIGN BRIEF:** Design an interior space to memorialize Nelson Mandela.

**CLIENT:** Memorial institution for Nelson Mandela

#### IMAGES FROM WORKSHOP



### 2015 DIVERSITY AND DESIGN WORKSHOP

**GOAL:** Expose 4th through 12th grade students of color from Minneapolis and St. Paul schools to the design process through an interior design activity.

**DESIGN BRIEF:** Design a getaway for the client using minimalism, biophilia, and sustainable design.

**CLIENT:** A famous artist from Brazil, Jamaica, Trinidad, Madagascar, Ghana, Senegal, Haiti, or Nigeria, whose cultural heritage has been a great influence on his/her work.

#### IMAGES FROM WORKSHOP



## 2017 DIVERSITY AND DESIGN WORKSHOP

**GOAL:** Bring a diverse group of 1st through 12th grade students from Minneapolis and St. Paul schools to the University of Minnesota Campus to expose them to design related fields and an institution of higher learning.

**DESIGN BRIEF:** Three-dimensional hands on exercise using LEGO to create a logo for the American Society of Interior Design (ASID) logo.

**CLIENT:** Interior Design Exhibit Space

#### IMAGES FROM WORKSHOP



Workshops sponsored by: College of Design RFP grant \$25,000, 2013-2015; Target Campus Grant \$1,750, 2013-2014; Micro Grant, University of Minnesota \$1,000, 2017; Brian Kelley, Director Young Builders and Designers, Collaborator in 2017 Workshop



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### 2018 DIVERSITY AND DESIGN SUMMER CAMP

GOAL: Hands-on making exercises and activities in interior design, architecture, product design, 3 D modeling and digital fabrication focused on the intersection between math and design for K-12 BIPOC students.

#### IMAGES FROM THE PROGRAM



#### 2018 DIVERSITY AND DESIGN SUMMER CAMP

**GOAL:** Campers built the Sir David Adjaye's Sugar Hill Affordable housing from LEGO in the summer 2018 camp.

#### IMAGES FROM THE PROGRAM



#### 2019 DIVERSITY AND DESIGN PROGRAM

**GOAL:** Hands-on making exercises and activities in interior design, architecture, product design, 3 D modeling and digital fabrication focused on the intersection between math and design for K-12 BIPOC students.

Campers built Wounded Knee Memorial Center by Tamara Eagle Bull from LEGO in the summer 2019 camp.

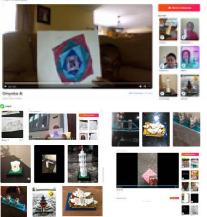
#### IMAGES FROM WORKSHOP



#### 2020 DIVERSITY AND DESIGN PROGRAM

GOAL: Online Building Bridges to Design and STEAM Careers for BIPOC K-12 youth. Creative exercises focused on the intersection between design, geometry and math using design precedents, building blocks, sketching and origami.





Workshops sponsored by: UMN OVPR; College of Design grant—\$10,000, 2013-2015; 2018-2020 Micro Grant, University of Minnesota—\$1,000, 2017; National Endowment of the Arts Grant —\$15,000, Cuningham Group; Perkins+Will; LSE Architects



Prepare2Nspire is an innovative, cascading, multi-grade mathematics tutoring and mentoring opportunity that includes graphing calculator technology.

Principal Investigator: Dr. Lesa Covington Clarkson, associate professor, has a history of working in urban schools with diverse populations in the Twin Cities.



Dr Clarkson and Prepare2Nspire High school students at Hidden Figures Movie Spring 2017.



Prepare2Nspire students in Math Class at Urban Research and Outreach-Engagement Center (UROC), University of Minnesota, Spring 2017.

## Instagram

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Introduction to Design and STEAM Careers Summer Camp



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perkinswill\_min Our studio recently participated in the Introduction to Design and STEAM Careers Summer Camp organized by Dr. Asojo at @umntwincities @umndesign

This week long camp, geared towards K-12 students in underserved communities, focuses on building awareness of careers in Architecture and Design by exposing them to fun, hands on activities as they learn about these professions and examples of architecture and design in their everyday lives.





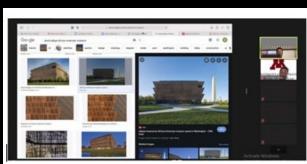




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## Cross-Cultural Design, 3D Modeling: TinkerCAD







# 3D Printing



## Math and Coding







## What did you learn about design and math in this summer camp?



# BRIDGING THE DIGITAL DIVIDE IN STEM THROUGH AN IMMERSIVE LOCAL AND GLOBAL MAKER PROGRAM. FEBRUARY 19 AND 26, NIGERIA

CAMP SAMPLER APRIL 9 AND MAY 14 @ UROC

BRIDGING THE DIGITAL DIVIDE: DESIGN AND MATH SUMMER CAMP

June 21, 2022 to July 1, 2022

2022 Funding: BestBuy Grant and GPS SDG Research Grants Program