



## CREATING CIRCUIT PAINTINGS AND CONTEMPORARY ART TO ENGAGE IMMIGRANTS, REFUGEES AND K-12 STUDENTS IN STEM

Texas Women and Girls in STEM Summit 2019



## About me:

- Bachelors in Engineering (*UT Rio Grande Valley*), M.A. STEM Education (*UT Austin*)
- Ceramics student @The Art School- The Contemporary Austin (2017-2019)
- Over 10 years of teaching, leading and creating initiatives and programs at **public schools, charter schools, universities and museums** across Texas.
- Pre-K to adults
- STEAM Education, Bilingual Education, Museum Education
- [www.mariel-robles.com](http://www.mariel-robles.com)



FINE ART INTEGRATION IN  
YOUR  
CLASSROOMS/PROGRAMS



Superflex, *One Two Three Swing!* Tate Modern, 2018.

WHAT IS  
CONTEMPORARY  
ART?  
INSTALLATIONS



Matt Connors, *Egypt, Hard G* 2015

# WHAT IS CONTEMPORARY ART? PAINTINGS



WHAT IS  
CONTEMPORARY  
ART?  
SCULPTURES

Mark di Suvero *CLOCK*  
*KNOT*, 2007

# STEM + CONTEMPORARY ART



- Materials
- Math:  
Dimensions,  
weight, geometry.
- Chemistry
- Electronics
- Design
- Construction

# STEAM & Literacy Program (*Pilot*)

## Community partner:

- **Posada Esperanza** is a volunteer-driven emergency homeless shelter in east Austin, serving recently-arrived immigrants and asylum seekers from around the world. Houses about 100 residents/ 60 families per year.

## Program Goals:

- Provide a safe and nurturing space for mothers and their children to create, learn and build strong relationships.
- Cultivate the love of reading, Art, while learning Math and Science.
- Develop a problem-solving mindset.
- Support and boost formal education.
- Nurture native language, culture, and traditions.



# Project-based STEAM

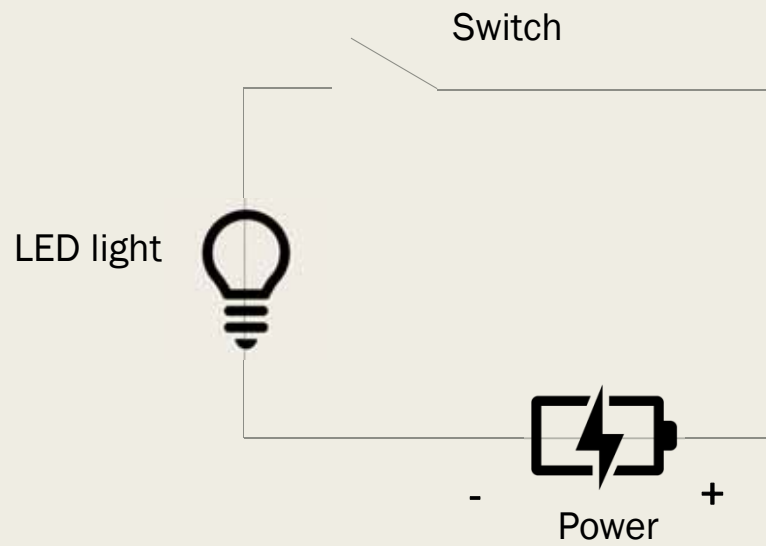
## Miró, Shapes (Geometric and Organic) & Circuits

- Art
- Literary component
- Math/Science/Engineering
- Real-life applications
  
- End product: Contemporary Art using [conductive paint](#).



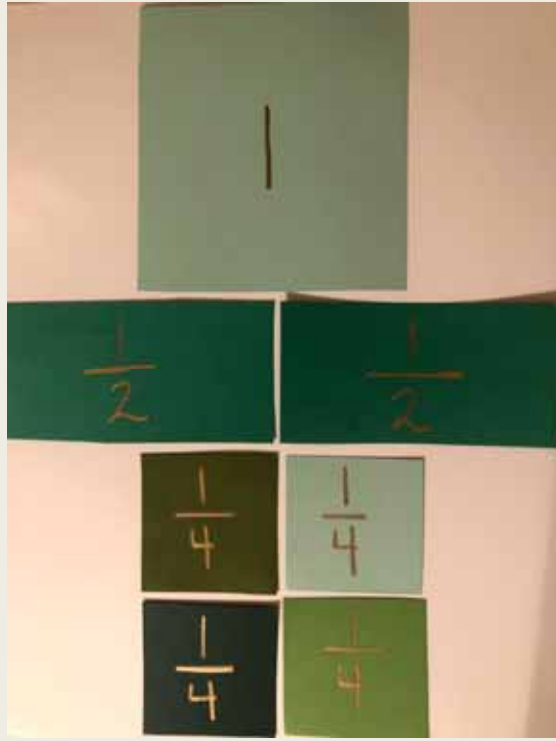


# Circuits, Science & Math





LATIN AMERICA, AFRICA, UNITED STATES



FRACTIONS, SHADES OF GREEN AND ART COMPOSITIONS



# CONTEMPORARY ART

- Story about fractions/rooms
- Fractions, geometric shapes
- Colors, shades of green
- Art composition/collage



Henry Matisse, The Snail 1953

# Lessons learned



Language



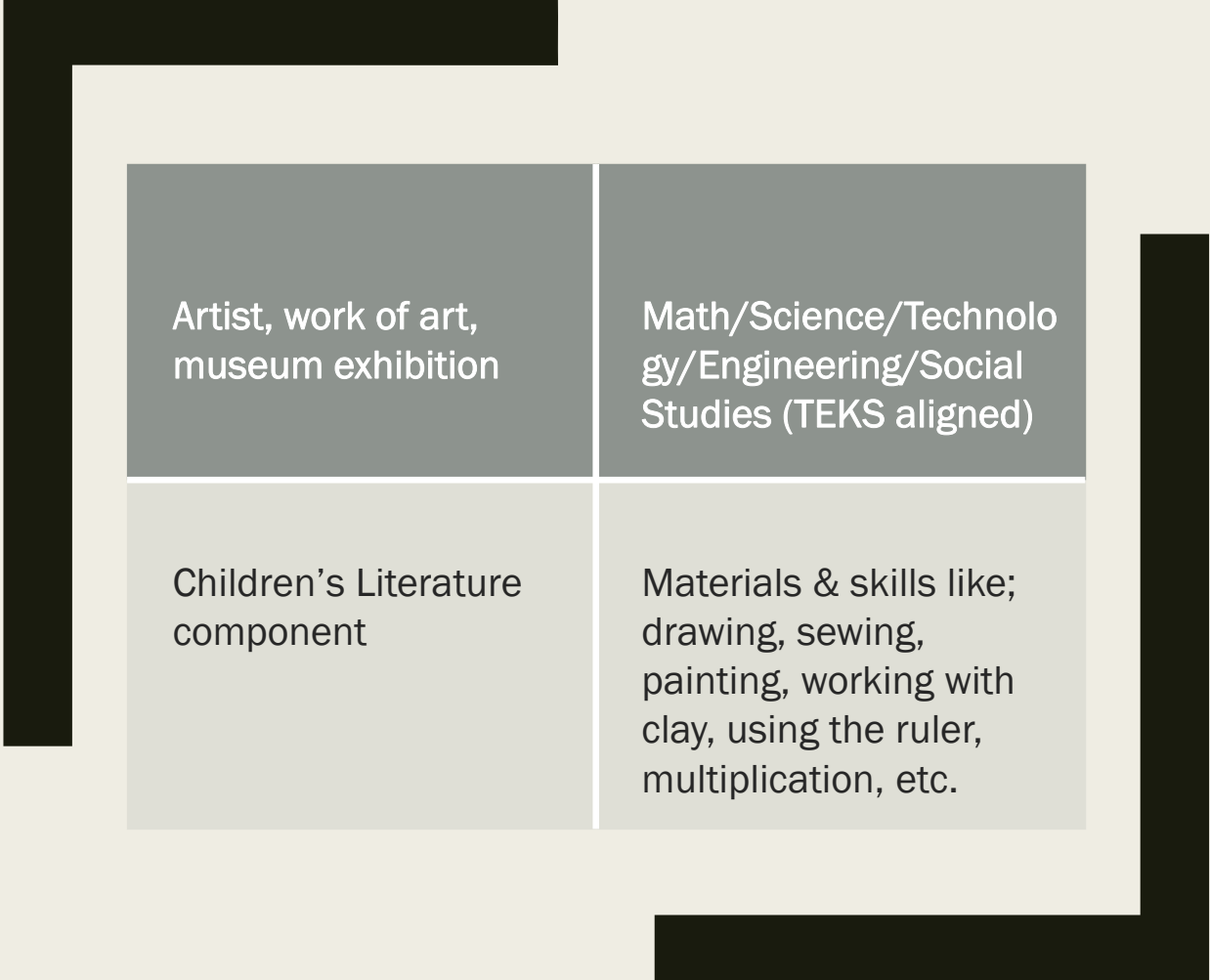
Age difference



Children's ability to stay seated



Designing engaging, culturally relevant projects



Artist, work of art, museum exhibition	Math/Science/Technology/Engineering/Social Studies (TEKS aligned)
Children's Literature component	Materials & skills like; drawing, sewing, painting, working with clay, using the ruler, multiplication, etc.

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# PROJECT DESIGN





Next level:

Visit a...  
Museum  
Science Center  
Park  
Government  
building  
Botanical Garden  
Library



IN PAIRS: DESIGN A SAMPLE  
PROJECT AND SHARE IT WITH  
THE GROUP.





# QUESTIONS



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