



Exponentially promoting Science, Technology, Engineering and Mathematics

2018 STEM Exploration Camp
(Build the Next Generation of STEM Leaders | #STEMmode)
July 16 – 21, 2018
Marvel Universe: Designing a Marvel STEM Youth Center
(based off the movie Black Panther)

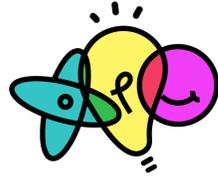
Welcome to the **Marvel STEM Universe!** We are excited to have your young scientists with us. We have a special mission for your girls: they will be designing a multi-purpose youth center in Oakland! This building will exist in the Marvel STEM Universe, and will allow the girls to also interact with other Marvel characters aside from the Black Panther movie (i.e. the Avengers, Guardians of the Galaxy, X-Men, etc). The girls will start with a macro-concept of engineering and design principles to create a virtual center, and end with a micro look of designing for an individual who may use the space. Not only will they walk away with this awesome experience of academics, but they'll also get to embody the world of marvel, and celebrate their efforts comic con style!!! By the end of Camp, the girls will:

1. Create an engineering design vision board
2. Design a 3D model of a multi-purpose youth center
3. Take tour of the Ed Roberts campus in Berkeley to view its Universal Design principles
4. Combine fashion with technology to create wearable clothing and accessories, and compete in a fashion show
5. Practice 21st century skills presenting their work to peers and family.

Day 1: Introduction to overall camp outcomes & theme

Outcome: Vision Board, and Completed Floor plan

Overview: the girls will get to know one another through icebreakers, and then be introduced to their task with a short clip of the movie Black Panther. After the video, they will also get to “meet their clients,” and split into two different age groups (7-11, 11-17) and begin working on their vision boards and floor plans.



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Day 2: Introduction to model making

Outcome: Virtual Model of Multi-space

Overview: The girls will be learning how to use either Tinkercad, or Google Slides to build a virtual model of their center. They will use their floor plan drafts from the previous day to complete the task.

Day 3: Interior Design

Outcome: Field trip to Ed Roberts Campus

Overview: The girls will be visiting Ed Roberts Campus. Located at a fully accessible transit hub, the Ed Roberts Campus is a national and international model dedicated to disability rights and universal access. The girls will take what they learned on this trip back to camp, to think about how to incorporate universal access into their own designs.

Day 4: Technology and Fashion

Outcome: Fashionable & Wearable Tech Suits made by the girls

Overview: This say will be all about STEM and fashion! Much like Princess Shuri in Black Panther, the girls will get a chance to design and make clothing articles that not only suite their clients needs, but also function within their center.

Day 5: MARVEL STEM-Fest (comic con style)

Outcome: Girls will present their work for the week, and participate in other STEM activities

Overview: This will be the day all girls get to show off their **Marvelous** work! The girls will take all of their project done throughout the week, and showcase it to one another comic con style. At the end of the day, there will be a fashion show with prizes for creative and innovative designs!



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Day 6: End of Camp Presentation

Outcome: Awards, Slideshow, Acknowledgments

Overview: We are inviting all families, partners, and volunteers to come celebrate the end of camp with us! This is a casual affair where families can see what the girls worked on all week, as well as learn more about Self-eSTEM, it's boards, and partners. Food will be provided as well as Self-eSTEM swag to purchase, and a few free giveaways!