



2018 Design Challenge:

THE INCREDIBLE AND AMAZING
SUPERHERO ADVENTURE!

Saturday, April 21, 2018 at the Washington Pavilion

Challenge

Join us for the Washington Pavilion Design Challenge 2018, where teams are challenged to design and create a superhero (or superhero team) and a gadget or powers that addresses a specific task (chosen by the team) that would better humankind.

How to Get Involved

- Participation is as simple as registering to let us know you're in! Anyone is eligible to register a team – schools, community groups, and families are all welcome.
- Fill out the attached **registration form** and submit it to the Washington Pavilion by **April 6, 2018**.
- Details about specific tasks will be provided upon receipt of registration.

Age Categories

K-2nd | 3rd-5th | 6th-8th | 9th-12th

Teams with members that span multiple age groups will be placed according to its oldest members.

Team Size

Teams should have at least 2 and up to 5 individuals.

Cost

Free! There is no cost to participate in Design Challenge.
Cost of additional materials should not exceed \$10.

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YOUR ADVENTURE BEGINS...

SCENE 1:

- Gather your team and come up with a team name – decide if you will wear costumes as part of your presentation
- Register your team
- Superhero development – See the fine print section for details
 - Create your superhero/superhero team
 - Determine the task or challenge your superhero/team will overcome to better humankind
 - Determine your superhero power or create its signature gadget
- Gather materials
 - Use everyday objects and materials from home
 - Don't spend more than \$10 (list materials purchased and their costs or source in a journal)
- Create a journal to document your process throughout this challenge.**
- Practice your presentation

SCENE 2:

- Come to the Washington Pavilion for Design Challenge on April 21, 2018
- Check in
- Set up your display and present your superhero and journal to the judges at the designated time
- Proceed to the on-site challenge location and await the 2nd phase of judging

SCENE 3:

- On-site Challenge
 - ✓ Your superhero will be presented with a series of tasks/situations that your superhero might face.
 - ✓ Your team must use engineering to complete these tasks.
 - ✓ Your superhero may use its superpower or gadget to complete the task, or choose from an assortment of tools provided.
 - ✓ Tasks will increase in difficulty for each age group.
- Awards, prizes and cookies!

The Fine Print

(For Team Leaders and Parents)

Development and Construction

Design and create a superhero or superhero team (a la The Avengers) and a gadget or powers that addresses a specific task that would better humankind. Example: Superman's superpower is his incredible strength that allows him to hold up a collapsed bridge so a train full of passengers can safely cross the bridge to the other side. Your superhero/gadget should be constructed using everyday objects and materials from home. Please don't spend more than \$10 on additional materials.

Safety

While superheroes may use dangerous things like fire, liquid nitrogen and chemicals, the safety of all team members and participants should be the first priority. **The use of fire, dry ice, liquid nitrogen, chemicals of any kind, or any other hazardous materials in the creation or testing of your superhero and its super power is strictly prohibited.**

Presentation and Journal

Each team must document the development and construction process in a journal. This can be done in a variety of ways – PowerPoint slideshow, photo display, video diary, notebook...it's completely up to you! You could even present it in the form of a comic book! Just be sure it lists your materials and explains each stage of the design, construction and testing process.

Teams will have 5 minutes to present their superhero and gadget to the judges and answer any questions they might have.

Creativity in the journal and presentation is **strongly** encouraged, and points will be awarded for creativity. Have fun!

Demonstration and Functionality

Each team will be presented with a series of tasks that they or their superhero will need to complete. Teams will be provided with a set of tools (i.e. empty bucket, toothpicks, rubber bands) that can be used to complete the tasks. Teams may also use the superhero gadget or power to complete the tasks. Clues about the tasks and judges' rubrics will be posted on the Design Challenge page of the Washington Pavilion website beginning in March 2018.

Design Challenge Registration Form

Each team should fill out this form and return it via email or regular mail to the Washington Pavilion by April 6, 2018. Please print or type.

**All confirmations and correspondence will be done via email, so please be sure to include them below.*

Team Info

Team Name: _____

Age Category: K-2nd 3rd-5th 6th-8th 9th-12th

Individual Team Members (2-5 permitted)

1. Name: _____ Grade: _____ Age: _____

Parent Name: _____ Parent Email: _____

2. Name: _____ Grade: _____ Age: _____

Parent Name: _____ Parent Email: _____

3. Name: _____ Grade: _____ Age: _____

Parent Name: _____ Parent Email: _____

4. Name: _____ Grade: _____ Age: _____

Parent Name: _____ Parent Email: _____

5. Name: _____ Grade: _____ Age: _____

Parent Name: _____ Parent Email: _____

Adult Team Leader Info

Name: _____

Email: _____

Phone Number (for day of event): _____

Address: _____

City: _____ State: _____ Zip: _____

Media: Please note that unless otherwise indicated, the Washington Pavilion of Arts and Science may use names and photographs of students at the Design Challenge event for future publications, promotional materials (print and online) or educational materials. Please contact us if you have questions or concerns.

See you Saturday, April 21, 2018 at the Washington Pavilion!

Return Form

Email CLC@washingtonpavilion.org
Mail Washington Pavilion | Attn: CLC
301 S. Main Ave. | Sioux Falls, SD 57104
Deadline April 6, 2018

Questions?

Contact us at 605-731-2348 or
CLC@washingtonpavilion.org