



Transportation of the Future

Hosted by Bright Spark and Thrive Regional Partnership, **Transportation of the Future** is a design competition for students from 4th through 12th grades and higher education institutions. Participating schools are invited to form teams led by teachers to develop innovative solutions driven by application of design thinking.

Design Challenge:

How Might We reimagine the transportation system of the future to move people and products more efficiently while protecting our natural resources?

Project Scope

Transportation systems are essential to connecting people, places, goods and jobs. According to AAA's report, Americans average more than 290 hours driving each year. An average household in the tristate region travels more vehicle miles than the national average, likely due to the influence of rural counties that require greater travel distances to access the region's essential assets (jobs, hospitals and schools) and minimal use (less than 1%) of public transportation.

We are a region that loves driving our own cars (87% of commuters drive alone to work), but hate sitting in traffic and losing productive time. Unfortunately, the majority of the population faces this predicament as only 3% of the region's workforce represent those that work from home and telecommute.

The tristate region also experiences the highest volume of freight loading truck thru traffic than any metro in the country. This is due in large part to the vast amount of freight coming into the southeastern sea ports and our region's geographic location being a pass through to the Northeast and the Midwest. Additionally, truck traffic is also influenced by our economically vital existing industries dependent on the movement of goods to and from their facilities. These logistic dependent industries make up 40% of the gross regional product and supply 40% of the jobs in several of our region's counties.

We challenge you with designing a solution that advances the efficiencies of moving people and products, and improves access to the region's assets while protecting our natural treasures. Because of the fiscal constraints of building miles of new highways, this solution should maximize existing infrastructure.

What does our transportation infrastructure look like in 2025? How efficiently are our people and products traveling through the region? You should explore existing and developing transportation technologies (car, air, river, trucking, digital) while finding ways to optimize existing infrastructure.



Key Questions

- Who are the key stakeholders and what are their needs, wants, and pain points?
- What were the important observations and trends related to transportation and access to assets that inspired your solution?
- How will the community benefit from your solution? How does it increase efficiency of mobility? How does it improve access to the region’s assets?
- How is it different than the ways we travel to work and deliver products today?

Competition Schedule

The Design Competition will be established in 2 phases as follows:

Phase 1: Discovery & Exploration / Training (Fall Semester | September-December 2017)

Event	Date	Description
Competition Registration	September 1- November 15	
Entry Fee and Forms Due	November 15	Submit entry fee, rules & guidelines form and release form.
30 min Webinar Sessions with Thought Leaders	October 19 November 2 November 9 November 16	There will be webinars for teachers and students to attend. We will invite industry experts to provide their insights about Future of Transportation.
Design Thinking “Train the Trainer”	October 3 November 4 December 2	Teachers will have the opportunity to participate in a 90-minute design thinking course to learn to deliver an introductory design thinking exercise to their students.
Design Thinking Crash Course	October 3 November 4 December 2	There will be a 4-hour Design Thinking Crash Course available for teachers. There are 3 training date options available. Your registration code to receive sponsorship for this course will be included in your confirmation email after enrolling in the competition.
Design Thinking Coaching Check-in	November 2017 & January 2018	These are virtual check-in meetings for teachers to receive guidance on Design Thinking and ask any questions regarding the competition. There will be 2 check-in meetings – in November and January

Phase 2: Ideation & Execution / The Competition (Spring Semester | January-March 2018)

Event	Date	Description
Design Competition Kickoff	January 9	Design Competition kickoff material (video, project brief) will be delivered to teachers digitally.
Prototype Review	February 9 and 10	Participating teams will attend in-person or virtually to share in-progress prototype designs.
Final Submission	March 2	Entries to be digitally uploaded to the Bright Spark virtual submission site (details to follow) by 5:00 PM EST.
Student Design Awards	March 20	All participants are invited (details to follow).

* Dates and details are subject to change. Specific information will be shared prior to each major event.

Entry Work Required for Final Submission

- Digital presentation (PowerPoint or Keynote)
 - A typed descriptive statement articulating the solution, its impact and how it answers the Design Competition question
 - A storyboard of the user experience/journey
 - Answers to the key questions
 - A typed bibliography detailing and referencing the inspiration
- A tri-fold poster board, to be displayed at the award ceremony to showcase the completed work along with the physical prototype
- A physical prototype made of construction and recycled materials no larger than 3'x4'.
- A video clip, up to 3 minutes, mp4 format codec H264 describing solution and how it answers the main challenge statement and key questions

Judging Criteria

Each is allocated 20 points for a possible of 100 points:

- Design Thinking: Demonstrate your application of design thinking.
- Meeting the Challenge: Demonstrate how your solution and prototype address the design challenge statement.
- Innovation: Is your design inventive? Have you found a unique solution to the challenge?
- Design Aesthetics: Do visual and physical elements of the presentation and the prototype convey your solution effectively? Do they engage the senses?
- Development Potential: Is your solution sound? Do you have a viable, feasible solution?



Awards

Participating teams will be divided into 4 age groups for judging (Elementary, Middle, High, Higher Ed).

- Best Design is awarded to the top scoring team from each group
- Most Creative Design is awarded to the most forward-thinking team from all groups
- People's Choice is awarded to the team that received the most social-media recognition from all groups
- Most Regionally Innovative Design is awarded to the team that best captures the spirit of the tri state region's vision for responsible and inspired growth

Prizes shall be awarded at the discretion of the Judging Panel under the direction of the Advisory Board, and all decisions by the Judging Panel are final.

All teachers whose team complete the competition will be eligible for a Bright Spark Design Thinking Leadership Award.

Registration – September 1-November 15, 2017

K-12: Registration will be limited to 50 teams for the 2017-2018 Competition. To participate, each team should consist of a teacher leader and minimum of 2 students. Our recommendation is 6-8 students per team. There is a registration fee of \$350 per school for one final submission and \$250 for each additional submission.

Higher Education: Registration will be limited to 10 teams for the 2017-2018 Competition. To participate, each team should consist of a professor leader and minimum of 2 students. There is a registration fee of \$350 per school for one final submission and \$250 for each additional submission.

Registration fee includes competition materials, design thinking video and worksheets, design thinking coaching during the competition, in-depth design thinking training, and eligibility for participation in the Student Design Awards Ceremony. All design competition forms and registration fee are due by Wednesday, November 15, 2017.

Contact Us

If you have any questions, please contact Mary Kim at mkim@bridgeinnovate.com.

About Bright Spark

Bright Spark is an experiential adventure to ignite and build creative confidence for students and educators based on the premise that design thinking is fundamental to creating human centered



change. Fueled by inspiration, poised to imagine and brainstorm, relentless in creating bold solutions to complex challenges, designers have a vital role to play in enriching life's journey.

Learn more about Bright Spark programs and online resources at www.bright-spark.com!



2017-2018 STUDENT DESIGN COMPETITION BRIEF ACKNOWLEDGEMENT

Teachers, please sign and return!

I agree that I have read and understand the **Transportation of the Future Student Design Competition Brief**, and I agree to comply with all policies and rules contained therein.

Signature _____ Date _____