

DuPage Middle School and Junior High Innovators, the DuPage Regional Office of Education STEM Squad Invites You to Participate in the Third Annual

Solutions Showcase

Here's the Challenge:

Work with a team from your school to redesign an item to make it more functional or more efficient. Make a working prototype of your redesigned item and present it in a 3-minute video in the form of a Public Service Announcement, Commercial, or "Shark Tank" Pitch!

Some ideas to get you started:

- ✂ What items do people need or use every day?
- ✂ What are the problems that currently exist with these items?
- ✂ What are some ways in which changes could improve those items?
- ✂ What item do you want to redesign to make it more functional or efficient?



Solutions Showcase Details

Remember:

The engineering design process is a multistep process challenging students to come up with creative solutions to problems.

Synopsis of Showcase Solutions Challenge

- Teams collaboratively identify an object or item to redesign for the showcase.
- They use the engineering design process to redesign the object or item and make a working prototype of their improved item.
- Students observe safety precautions while completing all work, using adult supervision, as needed, with tools and materials.
- Students present their redesign in a team-created video. (*Details in Entries Section on Page 3.*)

Real World Application for This STEM Project

Improving on an object's design is an important step in the "problem solving and creative solutions" mindset. To be problem solvers, students must practice planning and designing solutions to problems by engaging in authentic design challenges.

- ☑ Teams must consist of 3-5 students from your school.
- ☑ Students must currently be in grade 5, 6, 7, or 8. All team members need not be in the same grade level.
- ☑ All teams must have a teacher sponsor from the school. Teachers may sponsor more than one team from each school.
- ☑ The sponsor of each team must complete a registration form on behalf of the team and each team member must submit a media release form completed and signed by a parent or guardian.
- ☑ The video submitted must be **submitted in MP4 format and be no longer than three (3) minutes**. Entries will be disqualified if they exceed 3 minutes, even by one second.
- ☑ Videos must be submitted by the sponsor. A link and instructions will be provided to sponsors once applications have been reviewed and accepted.
- ☑ Content may not in any way promote or suggest illegal activity or actions. Anything construed as a violation of federal, state, or local legislation or law is strictly prohibited.
- ☑ The video must be presented as a public service announcement, commercial, or "Shark Tank" pitch. In addition to your sponsor, it is suggested that someone outside your group check your script and video before the sponsor submits it.
- ☑ If the video is done in a language other than English, an English translation must be included.

Questions? Email Patricia Zriny, pzriny@dupageroe.org

Solutions Showcase Requirements

Solutions Showcase engages students in a collaborative activity that builds STEM skills by using the engineering design process.

Participants

- Solutions Showcase is open to students attending schools in DuPage County.
- Teams of three to five students from the same school must be sponsored by a certified staff person from their school.
- Students must currently be in grade 5, 6, 7, or 8. Students from the same school do not have to be in the same grade.
- Schools may have more than one team with the same or different sponsors.
- Sponsors must submit a completed Registration Form for the team(s) they sponsor. All participants must submit a signed Media Release Form.
- Teams not registered by the required date will not be permitted to enter the Solutions Showcase.

Entries

- The promotional message produced by the students must be submitted via a link that will be provided later to sponsors. Only registered sponsors may submit the final product.
- Official entries may not exceed three minutes, even by a few seconds.
- The content of the videos must relate to the topic. Entries related to other topics will not be accepted.
- The content of the message cannot in any way promote illegal activity or actions that violate federal, state, or local legislation, rules, ordinances, or other similar criteria.
- The DuPage Regional Office of Education STEM Team will review each entry to determine whether it qualifies. The decision of the STEM Team is final.
- Qualifying entries will be posted on the DuPage Regional Office of Education STEM website and may appear in other media outlets of the DuPage Regional Office of Education.
- Notification of approval will be sent directly to team sponsors.

Timeline

- Sponsors of teams must register their teams by **4:00 pm on Friday, February 24, 2023.**
- Teams may start work on their project any time after their team registration has been approved, which will be done by email to the sponsor.
- All video entries must be delivered to the designated folder/link no later than 4:00 pm on Friday, April 28, 2023, at which time additional entries will be blocked.

Additional Requirements

- All sponsors and student participants must submit a signed media release form for videos to be posted.
- A copy has been attached. Individual copies will be emailed to all sponsors and parents/guardians of team members.

Questions? Email Patricia Zriny, pzriny@dupageroe.org

Solutions Showcase Registration Form

A completed registration form for each team must be submitted by the sponsor. Email forms to Patricia Zriny at pzriny@dupageroe.org no later than 4:00 pm on Friday, February 24, 2023.

PLEASE PRINT OR WORD PROCESS

School Name:	
School Mailing Address:	
Team Sponsor Name:	
Position (mark or highlight one): Teacher Administrator Other (specify)	
Contact Email:	Contact Phone:
<u>Student #1</u> <i>(first name, last name)</i> Name: Grade (mark or highlight one): 5 6 7 8	<u>Parent/Guardian Information for Student #1</u> Name: Phone (with area code): Email Address (required):
<u>Student #2</u> <i>(first name, last name)</i> Name: Grade (mark or highlight one): 5 6 7 8	<u>Parent/Guardian Information for Student #2</u> Name: Phone (with area code): Email Address (required):
<u>Student #3</u> <i>(first name, last name)</i> Name: Grade (mark or highlight one): 5 6 7 8	<u>Parent/Guardian Information for Student #3</u> Name: Phone (with area code): Email Address (required):
<u>Student #4</u> <i>(first name, last name)</i> Name: Grade (mark or highlight one): 5 6 7 8	<u>Parent/Guardian Information for Student #4</u> Name: Phone (with area code): Email Address (required):
<u>Student #5</u> <i>(first name, last name)</i> Name: Grade (mark or highlight one): 5 6 7 8	<u>Parent/Guardian Information for Student #5</u> Name: Phone (with area code): Email Address (required):



Dr. Darlene J Ruscitti, Superintendent
DuPage Regional Office of Education
421 N. County Farm Road
Wheaton, IL 60187

Solutions Showcase Media Release Form Spring 2023

Email completed forms to Patricia Zriny pzriny@dupageroe.org

For Parents/Guardians of Participating Students:

I grant the DuPage Regional Office of Education the right to capture, gather, and post photographs, videos, and/or other recordings of my student while engaged in Solutions Showcase activities. I understand that such representations can be used by the DuPage Regional Office of Education or its employees/service providers for any lawful purpose, which may include publicity, marketing, illustration, advertising, and web and social media content related to the work and responsibilities of the DuPage Regional Office of Education. Under no circumstances will the items be used for the financial benefit of the DuPage Regional Office of Education. Published information may include student and school/district information.

My signature below indicates that I have read, understand, and agree to the above.

Print Parent/Guardian Name: _____

Print Student's Name: _____

Parent/Guardian Signature: _____

Date: _____

For Sponsors:

I grant the DuPage Regional Office of Education the right to capture, gather and post photographs, videos, and/or other recordings of me while engaged in Solutions Showcase activities. I understand that such representations can be used by the DuPage Regional Office of Education or its employees/service providers for any lawful purpose, which may include publicity, marketing, illustration, advertising, and web or social media content related to the work and responsibilities of the DuPage Regional Office of Education. Under no circumstances will the items be used for the financial benefit of the DuPage Regional Office of Education. Published information may include my name, title, and school/district information.

My signature below indicates that I have read, understand, and agree to the above.

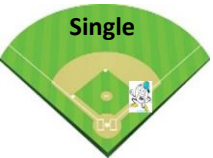

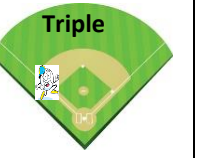

Print Name: _____

Signature: _____

Date: _____

2023 Solutions Showcase Rubric

This is the rubric the team will be using when reviewing the videos.

	 Single	 Double	 Triple	 Out of the Park!
Collaboration				
Team identified a problem to solve.				
Team made a working prototype showing improvements of their selected object or item.				
Evidence suggests team observed safety precautions while completing their work.				
Engineering Design Process				
Evidence suggests the team used the Engineering Design Process in making their prototype.				
Team came up with a creative solution to their problem.				
Presentation				
Each team member had a role in the presentation.				
Presenters spoke clearly in the video.				
The team appeared to be well-prepared.				
The video was engaging for the audience.				
<input checked="" type="checkbox"/> Checklist <i>(check box when completed)</i>				
	Team consists of 3-5 students in grades 5 th – 8 th .			
	Teacher sponsor completed registration form.			
	Each team member submitted a completed media release form signed by a parent or guardian.			
	Video was reviewed and critiqued by the sponsor.			
	The video is in MP4 format.			
	Presentation was a public service announcement, commercial, or “Shark Tank” pitch.			
	Video did not exceed 3 minutes.			