

THE DUPAGE REGIONAL OFFICE OF EDUCATION 2024-25 STEM OUTREACH PROGRAM

Program Highlights

- Sessions are conducted by DuPage ROE STEM Squad members at your junior high or middle school.
- Each after-school session runs about one hour, but time can be adjusted to fit your schedule.
- One or two of the school's teachers must be present to assist and will be paid a modest stipend.
- All supplies provided.

Questions?
Contact Linda Korbus
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The DuPage ROE STEM Outreach Program engages DuPage middle and junior high school students in informal, after-school STEM learning activities designed to increase STEM-related interest and skills. These opportunities also assist schools as they develop their own after-school STEM Clubs and events. Email [Linda Korbus](mailto:lkorbus@dupageroe.org), lkorbus@dupageroe.org, for more information or to schedule.

Bubble Mania

Students will create soap bubbles and observe them. They will experiment with different mixtures and wands to create different types of bubbles: long-lasting, compound, large.



Catapults

After a short discussion of catapults, students will follow a schematic to build a PVC pipe catapult. In small groups, they will experiment with launching angles, as well as projectiles, as they launch the catapults to hit targets.

Requires the use of a large open space or hallway.



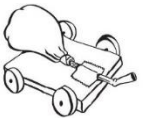
Code Crackers

Students will decode using different ciphers and explore the field of cryptology to help sharpen their organizational, communication, and observation skills. Your students may just go crackers for cryptology!



Make It Move

How can you make a car move, without an engine? Would Newton's Laws apply to a balloon car? Try building a balloon car to find out. Then race your car to see which ones go the straightest and farthest.



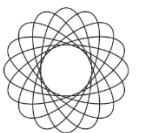
Optical Illusions

Our eyes and brain work together to figure out exactly what we see, or think we see. Students will investigate optical illusion types such as perception, distortion, paradox and persistence of vision to then make their own optical illusions.



DIY Spirograph

No need to purchase Spirograph, using common household materials, students engineer their own drawing tool and produce intricate designs, artistic patterns, and beautiful pictures!



Take it Outside

Students will study the flora and fauna on your school grounds by using a modified quadrant study. Sampling techniques, data collection, biodiversity: there is much to learn and so much to notice outside the classroom doors!



Toying with STEM

Link toys to STEM concepts through inquiry! By figuring out how toys work, students will apply problem-solving and critical thinking skills to make sense of their world while studying toy design.

Warning: Internet sites linked to toys may be harmful sites.



Veggie Volts

Build a battery from a beet? You bet! Using different metals and vegetables students will measure and determine how to produce the highest voltage possible. It's electrifying!



Whirlybirds

A simple piece of paper becomes a fascinating challenge as students experiment with weight and shape to explore how they impact aerodynamics.

Requires the use of a stairwell, balcony or stage.

