

# THE DUPAGE REGIONAL OFFICE OF EDUCATION

## 2025-26 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 Namrata Pandya [npandya@dupageroe.org](mailto:npandya@dupageroe.org)



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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. Email [Namrata Pandya, npandya@dupageroe.org](mailto:npandya@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.

Dates this session will be offered: September 23, September 25, and October 1.

### Catapults

After a short discussion of catapults, students will follow a schematic to build a 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.***

Dates this session will be offered: October 15, October 21, and October 23.

### Binary Beams: How the World Talks Using Light

Every email, text message, video, or game you play online or on your phone travels through light! Computers turn information into 1's and 0's, then send it as quick flashes of light through fiber optic cables. The cables carry the light super-fast across towns, countries, and oceans before turning back into the pictures and words you see. Learn how to send messages through fiber optic cables using a laser pointer.

Dates this session will be offered: November 12, November 18, and November 20.

### Cubelets

Use these SMART building blocks (cubelets) to create countless robot constructions with the help of three basic types of cubelets, one that senses, one that thinks, and one that acts.

Dates this session will be offered: January 21, January 27, and January 29.

### 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.

Dates this session will be offered: March 11, March 17, and March 19.

### Algorithm Adventures: Steps, Loops, and Logic

Algorithms are like secret recipes for computers! They use steps to follow instructions, loops to repeat things, and logic to choose what to do next. We dare you to follow the steps, byte by byte.

Dates this session will be offered: April 15, April 21, and April 23.

