

HANDS-ON STEM WORKSHOPS



Your students can explore more STEM topics by adding a hands-on workshop to your field trip! Reinforce a subject from class or choose something new for them to explore!



CHOOSE YOUR TOPICS

We have a wide variety of workshops for grades K - 8 in topics like **engineering**, **environmental sustainability**, **robotics**, and more. Look for these color-coded icons to help you choose a topic for your class!



Engineering



Robotics



Electricity



Space



Motion



Environmental Sustainability



Science Meets Art

Workshops are available for any grade K - 8.

Activities for each workshop may vary depending on grade level and the length of the program. The maximum class size is 25 students unless otherwise noted.

Continue to the next page for descriptions of each program!



Unless otherwise noted, The Lancaster Science Factory can bring these programs into your classroom. See page 4 for details on LSF TO-Go programs!

Wind Power



Students will use a variety of tools and materials to create a sailcar that harnesses the power of the wind. Activities based on grade level may include testing and changing their design, speed competitions, or races.

Structural Engineering



Students will be presented with a design challenge where they must think like an engineer to solve it. Challenges may include keva plank blueprints, catapults, bridges, towers, or balancing nails.

Electric Motors



Students will explore the properties of electromagnetism and energy flow while building circuits that can power electric motors and generators. **45 minutes+ only**



Local Watersheds



Not available for Outreach

Students will learn to define a watershed, pervious and impervious surfaces, and understand the environmental impacts of runoff. This workshop uses the interactive Enviroscape model and is *most ideal for students in grades 2 and up*. **45 minutes+ only.**



Circuit Lab



Students will learn about electricity and how energy flows while building and experimenting with a variety of circuits from simple to complex. Activities may include circuit boards, snap circuits, or paper circuits.

Robotics



Students will learn the basics of robotics and programming while interacting with Edison Robots, Beebots, or others. Robotics programs can be tiered for any grade level.

Newton's Laws of Motion



Students will learn about Newton's Laws of Motion and use them to perform dazzling feats! Activities may include the tablecloth trick, remove the platform, the coin trick, balloon races, and many more.

Rainforest Biomes OR Marine Biomes (choose one)



Students will learn about the importance of the rainforest or marine biome and about the animals and plants that live there. They will create a biome model to take home.

Create Art with Science



Students will create a watercolor project using household items like salt, baking soda, and vinegar. Activities may be free-form or use stencils depending on grade-level and time. Watch the watercolor react with the items to create a unique piece of art. Students take home what they make.

Our Solar System



Students will learn about the planets in our solar system, their placement around the Sun, and how they move. Each student will complete a solar system scroll to model the distance between the planets.

Create a Constellation



Students will choose a constellation and use skills like measurement, cutting, and design to recreate it on paper.

FIELD TRIP PROGRAM PRICES

Options that fit your schedule. Price is per workshop.

25 minutes - \$75.00

45 minutes - \$135.00

60 minutes - \$175.00



For more information and to book your field trip visit
www.LancasterScienceFactory.org/fieldtrips

Turn the page for Lancaster Science Factory To-Go details.



LANCASTER SCIENCE FACTORY TO GO!



Let us bring our unique and engaging hands-on STEM programs to your school, library, or other youth serving organization!

Choose any workshop on this menu for 60 minutes or longer: \$250 per hour of instruction with a maximum of 6 hours per day.

TO BOOK THE SCIENCE FACTORY TO GO:

Contact Brooke Pikolas at 717-509-6363 x107 or bpikolas@tlsf.org

We are currently traveling within 50 miles of the Lancaster Science Factory. This radius conveniently includes: Lancaster, York, Reading, Harrisburg, Carlisle, Pottstown, West Chester, Northern Maryland, and more!

