LANCASTER SCIENCE FACTORY TO



If you can't visit us, let us come to you! We can bring a variety of quality hands-on STEM programs to your classroom, library, or youth organization.

CHOOSE YOUR TOPICS

We have a wide variety of customizable workshops in topics like engineering, robotics, motion, and more. Look for these color-coded icons to help you choose a topic for your class!



Engineering



Environmental Sustainability



Robotics



Science Meets Art









Workshops are suitable for any

grade K - 8. Activities for each workshop may vary depending on grade level and your educational needs. Book a workshop for one classroom or for several in one day!

Continue to the next page for descriptions of each program!



Wind Power





Students will use an assortment of tools and materials to fulfill a specific design challenge. Students will examine how energy is transformed to generate electricity or explore real-world ways engineering can combat climate change. Activities based on grade level may include building a sailcar, and generating power with windmills.

Structural Engineering 🂹



Students will be presented with a design challenge where they must think like an engineer to solve it. Challenges based on grade level 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.



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 based on grade level may include circuit boards, snap circuits, or paper circuits.

Technology Technology

Robotics



Students will explore the basics of robotics and programming while interacting with Edison Robots. Robotics programs can be tiered for any grade level.

Create Art with Science





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

Newton's Laws of Motion

Students will learn about Newton's Laws of Motion and use them to perform dazzling feats! Activities based on grade level may include the tablecloth trick, remove the platform,

egg drop devices, balloon races, and

Biome in a Box

many more.





Students will learn about the different environments and habitats in which animals live. They will build an environment including terrain, plants, and animals in a box to take home.





Create a Constellation





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

Our Solar System



Students will learn the order and characteristics of the planets in our solar system as they design and create a model individually or in small groups. Activities will vary based on allotted time and grade level.

Hands-on Math

measurement, and more.



We know that getting students excited about math can sometimes be challenging. The Lancaster Science Factory has engaging hands-on math exhibits that help students feel more confident about math topics they are learning in class. Subjects include **fractions**, **place value**, **volume**, **shapes**,

More about Math

Our math exhibits make it easy to host a **math day** at your school (or DAYS)! Many schools have had success getting parents or even older students involved as "explainers" stationed at each exhibit.

These events are collaborative, and fun, and provide an opportunity for many students to build their confidence in math topics. Each activity is aligned with educational standards. Choose up to 7 from



the list below:

- Geometric Shapes
- Money
- Place Value (up to 1 Million) Measurement
- Fractions
- Time
- Tiling
- Volume: Cubes, Cylinders, Spheres
- Magic Squares

SCIENCE FACTORY TO-GO PRICES



Let us bring our unique and engaging hands-on STEM programs to your school!

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!