# STEM









# HERE THERE AND EVERYWHERE ...

MUSEUM COMES TO YOU
OUTREACH LABS
STEM STATIONS
VIRTUAL STEM LABS



# 1

#### OUTREACH PROGRAMS BRING THE MUSEUM TO YOU!

Are you looking for an interactive STEM activity for your next event? Look no further than the Terre Haute Children's Museum. Our outreach programs **come to your location** and make science come alive.

For more information, please visit <u>thchildrensmuseum.com/education2/outreach/</u> or for questions email <u>outreach@terrehautechildrensmuseum.com</u>.



#### OUTREACH LABS

- For up to 30 students in 1st-5th grades in a classroom-like setting.
- STEM lessons provide the WOW and inspiration to start a unit or can conclude a unit by engaging students in a fun hands-on experience.
- Students actively engage in science or engineering practices during the 45-60 minute program.
- Cost is \$250 per session. Discounts for multiple sessions and scholarships are available.
- Outreach events outside of Vigo County are subject to a transportation fee.

#### OUTREACH LAB TOPICS



#### **CODING WITH COLOR**

Use color sequencing skills to guide your Ozobot through mazes, avoiding dangerous pathways to success at the end.



#### **CRAZY COASTERS**

Explore force and motion as you work in teams to build a marble roller coaster. Can you engineer a loop?



#### **GRAVITY'S GRASP**

Give gravity a whirl as we demonstrate how it affects space objects and getting a craft to safely land.



#### **GROSS SCIENCE**

Let's get gross and explore the inner workings of our bodies, from runny noses to digestion.



#### IT'S SHOCKING

Use an electroscope to see static electricity then safely build an electrical circuit to create light.



#### **LUNAR ADVENTURE**

Prepare to live on the moon. Choose a location and discover a way to get the oxygen to breathe.



#### **OUTREACH PROGRAMS**



#### STEM STATIONS

- For all ages.
- 1 hour event where kids DO science!
- Choose from hands-on science activities for a small group or large event.
- Participants flow from one activity to another, spending 5-10 minutes at each.
- THCM staff members facilitate up to two stations and train your volunteers to lead additional stations.
- Cost is \$100 for the first station for one hour, \$190 for two stations for one hour, and \$25 for each additional station. Additional hours can be added for \$25 each. Scholarships are available.
- Outreach events outside of Vigo County are subject to a transportation fee.





#### STEM STATION TOPICS





Explore how center of balance affects what your body and buildings can do.

#### BOT ADVENTURES

Program your Ozobot, a mini robot, to travel to the castle. Use color coding to lay out the path as you learn how to instruct a bot.

#### **BOTTLESS WATER**

Can you hold water in your hand? Learn to be eco-friendly while satisfying your thirst.

#### **BUILD A SPACECRAFT**

Design and build a spacecraft to study an object in our solar system.

#### CARDBOARD CONSTRUCTION

Use Make-do screws and screwdrivers to engineer a cardboard creation.

#### ELECTRIFYING ELECTROSCOPES

Build an electroscope to understand static electricity.

#### **EXPLODING BAGS**

Create mini-explosions with baking soda and vinegar.

#### GEOMETRIC BUBBLES

Use Zometools to make two and three dimensional bubble shapes.

#### GUESS THAT SMELL

Use your built in nanosensor to explore the smell works.

#### MARBLE ROLLER COASTERS

Discover how energy and forces work in roller coasters. Engineer a marble through a loop.

#### **SOYBEAN NECKLACES**

Plant a necklace that grows as you wear it over the next few weeks.

#### STOMP ROCKETS

Build and launch a rocket to better understand the design of rockets.

#### **OUTREACH PROGRAMS**





### VIRTUAL STEM LABS MAKE SCIENCE EASY!

Want a hands-on science experience without the complications of bringing someone into your classroom? The Virtual STEM Labs are your solution. The museum makes it easy - we supply the materials, the instructions, and an educator to guide discussion and explain the science. All you need is an enthusiastic adult to supervise and guide the students in 1st-5th grades. For more information, please visit <a href="mailto:thchildrensmuseum.com/education2/virtual">thchildrensmuseum.com/education2/virtual</a> or for questions email outreach@terrehautechildrensmuseum.com.



#### VIRTUAL STEM LABS

- For classes of 1st-5th graders within a 30 mile radius of Terre Haute.
- A kit of all necessary materials will be delivered to the school for up to 30 children per class at least two days before you lead a lab experience.
- A link to a pre-recorded video that gives step-by-step instructions to show the students while they engage in the 30 minute experiment and collect data on day 1.
- A live 20-30 minute Google Meet with a museum educator who will discuss their results, lead them into analysis, and explain the science behind the experiment on day 2.
- A single teacher may book this for their classroom, or an entire school can offer it to all
  of their classrooms.
- Aligned to Indiana and Illinois science standards.
- \$230 per class for your choice of topic.

#### **BEAR'S SHADOW**

Students create and observe changing shadows from sunrise to sunset and discuss how that might apply to the earth and the moon during eclipses

#### BIRDS BEAK BUFFET

Students explore how bird beaks are adapted to different types of foods birds consume.

#### **MAKING AN IMPACT**

Students explore how the mass, shape, velocity, and angle of impactors affects the size and shape of the crater.

#### SUPER SNOT TO THE RESCUE

Students make and model snot to discover the role it plays in protecting our bodies from germs.

#### WILD WILD WIND

Students engineer a wind detector that responds to a breeze and a gust and are introduced to the Beaufort Scale.





#### WE HAVE A FIELD TRIP TO MEET YOUR NEEDS!

Visit the museum! Bring your whole class to the Terre Haute Children's Museum for a day of creation, learning, and fun in a science and technology atmosphere! To schedule a field trip at the museum, please visit <a href="mailto:thehildrensmuseum.com/visit/field-trips/">thehildrensmuseum.com/visit/field-trips/</a> For questions contact Tess Jacks-Grindle at tjacks@terrehautechildrensmuseum.com.

#### SELF EXPLORATION

- 2 hours of exploring the museum for students in PreK-2nd grades.
- Cost is \$6/student; \$3/chaperone; and teachers/school staff are free.
- Available for groups of 15 or more total students with 1 adult per 5 children.
- Payment must be made in one transaction. We accept cash check or credit card.
- Select weekdays beginning at 9 a.m. and are scheduled up to every 30 minutes thereafter.
- On a Friday during the school year, you may add a visit to the Ropes Challenge Course for students who are at least 48" tall. The cost is an additional \$7/person (adults and children).

## FIELD TRIP EXPLORATION LABS

- Available to all groups required for students 3rd grade or older.
- Museum staff leads a 45 minute STEM lesson with opportunities to play in the museum for 1 hour.
   You choose the topics (see below) for the labs. Lessons align with state standards and science practices.
- For groups of 15 or more students. Chaperones are \$3 each and teachers/school staff are free.
   Prices for students varies from \$7-\$9.
- Labs are conducted Wednesday through Friday.

#### FIELD TRIP EXPLORATION LAB TOPICS

#### BALANCE

Experiment with balance in this Leap Into Science workshop that pairs well with our Ropes Challenge Course.

#### COCKROACH MAZES

Combine your love of design and insect behavior in this interactive lab.

#### MATTER MATTERS

Students challenge their ideas about solids, liquids and gases.

#### SHAPING PLANETS

Students explore how impact craters have shaped all parts of our solar system – even Earth.





#### SCHOOL-WIDE FAMILY NIGHTS

Plan a playful night at the museum for all your families. It is a great time for children to play together and for parents to mingle or to play with their children creating family memories. To schedule a Family Night visit: <a href="mailto:thehildrensmuseum.com/familynight">thehildrensmuseum.com/familynight</a>. For questions contact Jamie at <a href="mailto:jmcdowell@terrehautechildrensmuseum.com">jmcdowell@terrehautechildrensmuseum.com</a>.