2018 – 2019
FIELD TRIP & PROGRAM GUIDE
Toledo’s Science Center • 419-244-2674 • imaginationstationtoledo.org
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All curriculum is aligned to Ohio Learning Standards. Find standards under the Resources section of the Educators menu online at imaginationstationtoledo.org.
We want to be your science education partner!

Whether you’re a preschool teacher who loves bringing hands-on experiences to your students, a science specialist for your district looking for inspiration or a classroom teacher in need of resources to reinforce the concepts you’re teaching, Imagination Station is here to help!

We are excited to offer several NEW experiences for the 2018 – 2019 school year.

- **Flight: The Sky’s the Limit** provides the chance for your students to test their aviation skills, while developing their understanding of the scientific principles behind flight.

- **Popnology** is a temporary exhibition we’re hosting in the fall of 2018. This exhibit explores the progress of science fiction into science fact. It connects how technology has been influenced by movies, books, television, art and futurists, and illuminates emerging technologies that are just now showing up on our cultural radar. Check with a Reservation Specialist to make sure you book your trip while this temporary exhibition is in town.

- **Our Homeschool programming** is all new for the 2018 – 2019 school year and is focused around three themes: Biology, Technology and Energy.

- **Themed Science Weeks** offer activities and programming that dive deep into one area. This year we’re exploring the science behind Mary Shelley’s “Frankenstein” as we celebrate the 200th anniversary of the book this October. We also have special activities and programming offered throughout the year that celebrate Chemistry, Engineering, Earth Day and Innovation.

- **Prep4Ed professional development sessions** offer educators one-on-one time with our Education Specialists to help you plan a field trip that will maximize your learning outcomes and, of course, FUN on the day of your field trip.

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**Imagination Station wants to be your science resource this school year.**

Feel free to call us with any questions. We’re happy to talk through the best outreach program to meet a specific standard or the exhibit you can’t miss when you bring your students, and we’ll even share how you can complete some of our favorite demonstrations in your classroom.
Eat It Up!
Eat it Up!, a highly interactive exhibition focused on nutrition and exercise, illustrates how the choices your students make today affect their bodies. Get your students’ hearts pumping as they take on the Wheel of Fire and the Heart Rate Rally, Smash Your Food to smithereens and literally Get in the Action. Eat Smart, Play Hard. Have Fun. The choice is yours!

Energy Factory
Energy Factory offers students a glimpse into the world of oil refining and solar power. Students can manipulate the energy output of a photovoltaic wall, compete against their friends using sunlight, program a robotic arm and command a kid-friendly oil refinery.

Grow U
Grow U celebrates the world of agriculture and farming! Take your students’ farm knowledge to a whole new level, and be the next contestant on FARM 101: Know It to Grow It! This interactive game show takes your students on an entertaining and educating journey from field to table. Grow U also features several interactive exhibits that offer both a local and global perspective on agriculture in the 21st century.

Our Learning Worlds focus on specific content to help structure your field trip experience. Whether you’re teaching your class about earth science, energy conservation, engineering or healthy habits, our Learning Worlds offer unlimited opportunities for exploration.
IDEA Lab
IDEA Lab inspires students to light it up, send it soaring, take it apart and make it spin, race it faster and create something great!

Explore science, art, engineering and design as you construct robots, build marble races and wire circuits. Your students will come to life in this learning world. Each experience is designed to foster critical 21st century skills like creativity, problem solving, persistence and innovation while promoting the idea that learning is fun!

You can add value to the experience by scheduling one of our Think Tank workshops that promotes these same core skills, all while addressing specific learning standards.

See pages 8-9 for more information about this programming.

Little KIDSPACE
Little KIDSPACE invites our littlest adventurers, kindergarten age and younger, to hop aboard a fire truck, shop in the grocery store or climb their favorite tree house, all while learning about forces, motion, math and life science.

Don’t miss our daily Science Story Time featuring an interactive story and activity in the Little KIDSPACE Studio.
Tuesday – Saturday: 11:15am
Sunday: 1:15pm

Mind Zone
Mind Zone is home to the Distorted Gravity Room, one of our visitors’ favorite exhibits. Mind Zone helps your students discover how the mind processes, interprets and creates illusions and perceptions. You won’t believe what you see.

Water Works
Water Works is an entire Learning World devoted to the slippery science of water, and dedicated to exploring nature’s most powerful resource. Our water and erosion tables, giant water vortex and fascinating weather exhibits, including the Hurricane Chamber, are sure to delight inquisitive minds at any age.

Special Attractions

NEW Flight: The Sky’s the Limit
Take your students’ learning to new heights. Students will hop into the cockpit of a Saab 340 and test their aviation skills. While flying the friendly skies, they’ll learn about the science of flight and many of the dynamic and varied STEM careers in aviation.

Simulator Theater
OVER THE EDGE!
$2 per person
42” height requirement
Experience an exhilarating journey as you dodge snow-covered trees on a mountainside, balance on the edge of the cliff, outrun an avalanche of boulders and careen down an abandoned mine shaft.
Our exhibit guides were created with the assistance of area K–12 educators, and will help structure a field trip that aligns directly to the concepts you are teaching in the classroom. These guides, available online, include student data recording pages, chaperone instructions and a post-visit activity to complete back in the classroom.

**Early Childhood**
**Age 5 and younger**
Your littlest explorers will learn about forces, motion, math and life science in this guide designed around our safe and friendly Little KIDSPACE.

**Eat It Up!**
**Grades 3–5 and 6–8**
This guide helps your students commit to making healthy choices in their lives. Students learn how much fat, salt and oil is contained in some of their favorite foods. They also explore how the heart is a muscle and what they need to do every day to keep it healthy.

**Energy Factory**
**Grades 3–5 and 6–8**
Send your class on an energy exploration as they learn about energy production and conservation. Students will discover more about renewable and non-renewable energy sources in this engaging guide.

**Forces**
**Grades 3–5 and 6–8**
Exploring some of our most exciting exhibits – the High Wire Cycle, the Giant Lever and the Tennis Ball Launcher – students will discover how simple machines make work easier, and they will better understand the unseen forces that affect us all.

**Grow U**
**Grades 3–5 and 6–8**
Raise your students’ agriculture IQ! This guide encourages your students to become scientists as they observe bees, study water drainage and get excited about agriculture in an interactive game show.

**Home/Classroom Energy Audit**
**Grades 7 and 10**
Help your students better understand the importance of saving energy at home and school with these engaging guides.

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**Ohio’s Learning Standards Key**

- Earth & Space Science
- Life Science
- Physical Ed/Health
- Physical Science
- Science Inquiry & Application
- Technology & Engineering Design

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Eat It Up! presented by: [PROMEDICA](https://www.promedica.org)

Energy Factory presented by: [First Solar](https://www.firstsolar.com)

Grow U presented by: [The Andersons](https://www.theandersons.com)
Combustion ■
Grades 3-10
Stand back for this explosive presentation! Students learn what creates combustion and the importance of fire safety. Your students have never seen a demonstration like this!

Motion Mania ■
Grades 1-10
Discover Newton’s Three Laws of Motion at their most entertaining. Your students will have a blast as they learn about force, momentum and acceleration.

Matter Mayhem ■ ■
Grades 1-9
Explore solids, liquids and gases like never before! Using liquid nitrogen, this demonstration gives a comprehensive overview of the phase changes. Watch water freeze before your eyes, witness the explosive power of evaporation and discover how “cool” condensation can be.

Sounds of Science ■ ■
Grades Pre K-10
Discover sound through some unconventional noisemakers. This demonstration makes cups squeak and rods scream. “See” sound as water jumps and lasers bounce – all in the name of science.

Method to the Madness ■ ■
Grades Pre K-8
Observe water defy gravity, be amazed as metal sparks and be awed by the incredible abilities of a liquid -320° F. This demonstration will inform your students about the importance of good observation and following the scientific method.

Our Extreme Science Theater features daily interactive demonstrations that explore fundamental science concepts with an exciting, EXTREME twist.
Don’t miss these special themed weeks guaranteed to engage your students in hands-on exploration! Plan your field trip around activities that complement what you are teaching in the classroom. Talk to our Reservation Specialists and schedule your visit during one of these exciting weeks of programming.

popnology
FROM SCI-FI TO WI-FI

September 28 - January 6
Spooky Science
October 26 – 31
It’s alive!!! Explore Mary Shelley’s world of “Frankenstein” with a modern-day twist. FrankenScience activities will take place in the IDEA Lab and throughout the building. Have a hair-raising good time exploring our Electrostatic Generator, sew together different parts of stuffed animals to make a unique FrankenPlush, reanimate with Oobleck, dissect cow eyes in the Think Tank, and experiment with dry ice and shrunk (apple) heads.

National Chemistry Event
November 16 – 18
Take off to outer space during these exciting days and explore the chemistry of the universe! What is the chemistry that makes each planet in our solar system unique? How does a rocket propel a spacecraft? What is the chemical composition of a comet? Discover these answers and more!

Girl Power
February 9
Girl Power gives young women in our community the opportunity to meet and learn from women in the STEM fields. This event offers your students a special EXTREME demonstration from Imagination Station, special activities prepared by STEM professionals and the opportunity to explore the science center.

National Engineering Week
February 18 – 24
It’s a week of creativity and construction! Students will craft Simple Machines using ramps, pulleys, levers, screws and wedges. Whatever their brains can imagine is possible with a little work and ingenuity.

Little Scientists Week
March 12 – 17
Little Scientists Week is designed especially for the youngest scientists, ages 5 and younger. Get your mini explorers excited about the world around them through hands-on, fun activities crafted to appeal to their interests and meet their educational needs.

Earth Day Celebration
April 16 – 20
There’s only one planet Earth, and your students can learn how to take care of it as they reduce, reuse and recycle bottle caps! Have them save and bring along bottle caps to Imagination Station where they will create art, lawn ornaments and jewelry using wire, hot glue and other decorations.

Innovation Week
May 7 – 12
Follow the path all the way to Imagination Station this week, where your students can connect with the world of circuits. They can explore energy sticks and figure out which materials are conductive and which are not, have hair-raising fun with a Tesla Coil and tinker with circuit blocks. It will be an electric good time!

Land a Mars Rover; immerse yourself in nine different 3-D environments; meet the galaxy’s most beloved droid, R2-D2; take a pic with Doc’s DeLorean from “Back to the Future”; test drive robotics and so much more!

Your students will become budding Popnologists when they dive deep into four featured areas of this cool temporary exhibition and get hands-on with the science and technology in our everyday lives – where we’ve been and where we’re going.

Popnology Group Rate: $4
Take your students’ learning to another level! Our 45-minute Think Tank Workshops address specific content that can be difficult to teach in the classroom – dissect a cow’s eye, create an electronic greeting card and get hands-on with the food web. These workshops offer structured curriculum during your field trip. Call our Reservation Specialists today to find out how to meet your students’ learning goals during one of our exciting workshops. We guarantee it will be the highlight of your visit!
Electro Dough
Grades 3-5 and 6-8
Flour and water aren’t just for baking cakes. Learn about electrical circuits with play dough. Your students are the electrician and the inventor. Play dough is an approachable way to teach even the youngest learners about circuits by creating dough models that light up!

Eye Opener: Cow Eye Dissection
Grades 6-8
Take your students’ vision to a new level by exploring the eye of a cow! Through the technique of dissection, they’ll examine the wonders of the cow’s interior eye. Walk away with an understanding of the difference between the vitreous humor and aqueous humor... and a new perspective on how we see the world around us.

Jitter Critters
Grades 3-5 and 6-8
Design a creature, then learn how to use a motor to get your creation moving. Your students will teach their critter to dance and doodle, slide and shake in a way that’s all their own as they learn about electronics, engineering and design.

Marble Machines
Grades K-2, 3-5 and 6-8
Can you speed it up? Can you slow it down? Can you change its direction? Using everyday materials, students will engineer their own pathways for marbles and try to successfully meet our design parameters as they get hands-on with the engineering design process.

Papertronics
Grades 3-5 and 6-8
Your students will light up someone’s life with a paper creation that truly shines. A little copper tape, some LED light bulbs, wristwatch batteries... and voila! They’ve created a circuit! But that’s not all. Now merge the circuit with your paper creation. All they’ll have to do is press the right spot to complete the circuit and see the light.

Wise Up: Owl Pellet Dissection
Grades K-2, 3-5 and 6-8
Be part of science research and have a hoot as your students learn about owls and their environments. This workshop gets hands-on with the food web. Identify bones and collect data to help researchers learn more about owl habitats across the country. Your class can become honorary citizen scientists!

Student Cost: $5 per participant
Minimum of 15 students per session, maximum of 30.

Reserve Today: To reserve your space, call 419-244-2674 ext. 250.
This nine-workshop series, broken out into three topics, runs from 10:30am – noon. Sign up for the entire series at a reduced rate, or choose from our individual workshops. Space is limited to 30 students per session, and reservations are required.

**Member Cost:**  
$12 per class/ $100 series

**Non-Member Cost:**  
$17 per class/ $145 series  
Imagination Station admission must be purchased separately.

*Reserve Today: To reserve your space, call 419 244 2674 ext. 250.*
Biology Series
Wise Up: Owl Pellet Dissection
Wednesday, September 19
Your students will be part of science research and have a hoot as they learn about owls and their environments, and get hands-on with the food web. Students will identify bones and collect data to help researchers learn more about owl habitats across the country.

Eye Opener: Cow Eye Dissection
Wednesday, October 3
Take your students’ vision to a new level by exploring the eye of a cow! Through the technique of dissection, they’ll examine the wonders of the cow’s interior eye. They will walk away with an understanding of the difference between the vitreous humor and the aqueous humor … and a new perspective on how to view the world.

Squid Dissection
Wednesday, November 7
Your students will learn all about this mysterious sea creature by taking a careful look at the outside. Then, using dissection techniques to explore the inside as well, they will discover how the squid’s internal body structures help it survive in its underwater environment.

Technology Series
Scratch Coding
Wednesday, December 5
Students will learn how to use drag-and-drop coding. Combining their knowledge of storytelling with instruction in coding, students will bring their own computer-programmed stories to life in animated fashion.

LEGO® Robotics
Wednesday, January 9, 2019
Who hasn’t dreamed of creating their own robot and programming it to follow their commands? In this workshop students will get to do just that, through the use of specialized LEGO® kits and coding software.

Soldering
Wednesday, February 6, 2019
Students will understand the process of soldering and its many contemporary uses. They will get to try it out for themselves by creating their very own light-up badge to wear proudly, demonstrating their newly learned skill.

Energy Series
Sewn Circuits
Wednesday, March 6, 2019
Explore the flow of electricity through simple, parallel and series circuits. Students will put their knowledge to the test by sewing their own light-up objects using both hand sewing and sewing machines.

Electric Guitars
Wednesday, April 3, 2019
Students will experiment with the energy of sound while learning how it transmits from place to place. Then, they will learn more about how musicians put their knowledge of sounds to good use creating musical instruments. Using that knowledge, students will create their own electric guitars.

Light It Up!
Wednesday, May 1, 2019
From candles, to the first light bulbs, to modern LED lights, the way humans have seen in the dark has changed dramatically over time. Students will explore a variety of ways that light can be created, along with exploring circuits and creating their own candles to take home!

Imagination Station is your educational partner. This monthly program, for students in grades 2 – 8, covers a variety of topics from motion to matter and all the fun, messy science in-between. Come ready to explore hands-on science and learn with other families.
Students have the opportunity to be scientists with 12 hands-on activities. Imagination Station comes to your school, day or night, to get students and parents excited about science. Festivals include materials aligned to Ohio and Michigan learning standards.
Energy Festival ■ ■ ■
Grades Pre K-10
Students explore energy options and draw conclusions about how we can best meet our energy needs. Complete circuits, see how heat transfers and hunt down clues to discover the differences between renewable and non-renewable resources.

Forces and Motion ■ ■ ■
Grades Pre K-10
This experience will reinforce Newton’s Three Laws of Motion. Students discover the science behind some of the world’s greatest inventions and put their knowledge of motion to work building roller coasters, launching film canister rockets, creating button flywheels and much more!

Structures ■ ■ ■
Grades Pre K-10
Build big with hands-on math and engineering activities designed around some of history’s most notable creations. Students will have the opportunity to build their own geodesic domes, create a keystone arch and design a house stable enough to withstand an earthquake.

We provide:
• Materials for 12 interactive science activities
• Teacher curriculum guide
• Content standards alignment for Ohio and Michigan
• Data recording pages for each student
• “What I Did Today” take-home sheets
• Post-visit extension activities
• In-school marketing materials and support
• Volunteer recruitment letter
• Trained educators who provide support throughout the event
• 30-minute training for teachers and adult volunteers prior to the start of the event
• Free admission pass to Imagination Station for every student with an adult purchase

Cost:
$1,000 for groups of up to 300 participants, plus $.60/mile outside Lucas County.

For details, reservations and larger group pricing, call 419-244-2674 ext.134.
Please note: Reservations should be made at least two weeks prior to a scheduled program.

Ohio’s Learning Standards Key

- Earth & Space Science
- Physical Science
- Science Inquiry & Application
- Technology & Engineering Design

Energy Festival presented by:

FirstEnergy Foundation

Toledo Refining Company
WORKSHOP ON WHEELS
Let us help make learning easy! The science center comes to your classroom with all the materials needed for one hour of exciting hands-on learning. As your partner in science education, we will provide all the pre- and post-activities to make a larger impact and give you more time for lesson planning. Chemistry, physics, earth and space science...you name it – we have a program!

Chemistry

**Grades 3-8**
Chemistry has never been so interesting. Students will discover substances with strange and surprising properties. They will explore the differences between chemical and physical changes while experimenting with film canister rockets, and at the end of the workshop they will create endothermic and exothermic reactions.

Energy Explorations

**Grades 3-7**
Increase your students’ awareness of environmental sustainability through hands-on explorations with thermal houses and windmills. Discover more about energy consumption and conservation to prepare your students to be stewards of a more sustainable future.

Engineering Design Process

**Grades 2-8**
During this workshop, students will confront challenges as they design and build. Utilizing the engineering design process (Think It. Build It. Test It… Do It Again!), your class will think like engineers and see the creative and dynamic side of this important field.

Fossils Rock!

**Grades K-5**
Let your students travel back in time using scientific inquiry to discover the world of dinosaurs. During this workshop, students will become paleontologists and dig for artifacts to learn how scientists study creatures that disappeared 65 million years ago.

Rocks, Minerals and Soil

**Grades 6-8**
During this workshop, we will discuss the composition and properties of the Earth’s interior. Students will experiment and determine the properties of various rocks and minerals and identify their common and practical uses.

**Cost:**
$375 for two of the same workshops, plus $.60/mile outside Lucas County.

For details and reservations, call 419-244-2674 ext. 134. Please note: Reservations should be made at least two weeks prior to a scheduled program.

**We provide:**
- Teacher curriculum guide
- Pre-visit activity
- Hands-on material/s for 30 students
- Post-visit extension activity
- Content standards alignment for Ohio and Michigan
Matter Series
Making Matter
Grades K-2
Students will explore solids and liquids firsthand by melting ice, freezing water and observing phase changes in front of their eyes. They will even end the workshop with a sweet treat using liquid nitrogen!

Matter of Fact
Grades 3-5
Students learn about the different states of matter while they watch experiments with liquid nitrogen. This workshop creates a lasting memory as students compete to melt ice, and then ends with a burst that is truly unforgettable.

Material Matter
Grades 6-8
Investigate the properties of matter. During this workshop, students will experiment with substances like gold, wood, air and polystyrene and compare their mass to their given volume.

Motion Series
Marble Machines
Grades K-2
Innovate and explore the creative, fun side of motion. Turn funnels, tubes, clothespins and dowel rods into a creative marble run as students change the motion of a marble through zigzags, twists, turns and loops.

Newton’s Roller Coasters
Grades 3-5
Explore the physics behind these exciting thrill rides by experimenting with velocity, momentum, acceleration and speed. Students will learn about Newton’s Three Laws of Motion and end the workshop by building their own roller coasters.

Tricky Trajectory
Grades 6-8
Discover the forces of flight; lift, drag, thrust and weight. Students will design flying machines and explore direction, magnitude and different types of potential energy.

Sound & Light Series
Sounds of Science
Grades K-2
Experiment and investigate with vibrations and sound. Students will see and feel sound vibrations, hear loud versus soft volumes and pitch changes by creating some unconventional noisemakers.

Alarming Circuits
Grades 3-5
Explore conductors and insulators by testing common materials and discover which materials allow electricity to flow easily. Students will learn that electrical energy can be transformed to sound energy by creating an alarming trip line.

Papertronics
Grades 6-8
Explore the flow of current by testing simple, parallel and series circuits. With a few simple parts, students will make their own electronic greeting cards that light up.

Ohio’s Learning Standards Key
- Earth & Space Science
- Life Science
- Physical Science
- Science Inquiry & Application
- Technology & Engineering Design
**Workshop on Wheels**

**Cost:**
$375 for two of the same workshops, plus $0.60/mile outside Lucas County.

*For details and reservations, call 419-244-2674 ext. 134. Please note: Reservations should be made at least two weeks prior to a scheduled program.*

**We provide:**
- Teacher curriculum guide
- Pre-visit activity
- Hands-on materials for 30 students
- Post-visit extension activity
- Content standards alignment for Ohio and Michigan
It’s never too early to begin experimenting with science. Don’t miss our special programming for our littlest audience. We come to your school or day care and provide 45 minutes of instruction on a range of different topics. Guaranteed to engage your budding scientists!

**Actions and Motions**
Your students will learn how things move using textures and friction.

**Little Big Dig**
Young paleontologists will explore dinosaurs, create fossils and learn how real paleontologists excavate fossils.

**Me, Myself & You**
Your mini scientists will learn how to keep bodies healthy and explore how bodies work.

**Mining for Magnets**
Students will explore the invisible force of magnetic fields as they push and pull their way through the discovery of magnets.

**Your Five Senses**
Kids will discover how their senses can help them gather information about the world around them.

**Cost:**
$375 for two of the same workshops, plus $.60/mile outside Lucas County.

For details and reservations, call 419-244-2674 ext. 134. Please note: Reservations should be made at least two weeks prior to a scheduled program.

**We provide:**
- Teacher curriculum guide
- Pre-visit activity
- Hands-on materials for 30 students
- Post-visit extension activity
- Content standards alignment for Ohio and Michigan
EXTREME SCIENCE DEMONSTRATION

Grades Pre-K–12
This assembly-style presentation is 45 minutes and explores fundamental science concepts with an exciting extreme twist! Water defies gravity, metal sparks and a liquid that is - 320°F displays incredible abilities. The content is appropriate for a wide range of ages and grade levels.

Cost:
$325 for 45 minutes of programming, plus $.60/mile outside Lucas County.

For details and reservations, call 419-244-2674 ext. 134.

STARLAB

Our Place in Space
Grades 3–8
Your students will be amazed once they’ve entered our portable planetarium. STARLAB® allows students to study the night sky without leaving school. They’ll gain a new understanding of the stars in our galaxy and learn the stories that made some stars famous.

Your school provides:
• A room large enough to accommodate the STARLAB® which is 16ft. in diameter and 11ft. in height. (A gymnasium works best.)
• One adult to be present with the facilitator at all times in the STARLAB®.

STARLAB® Cost:
$325 for one hour of programming, for up to 30 students per session plus $.60/mile outside Lucas County.

For details and reservations, call 419-244-2674 ext. 134.
We’re here to help you! As your education partner, we want to provide you with as many resources as possible. Feel free to call us anytime; we are full of great ideas to teach science in the classroom.

**Free Admission**
With proper identification, educators receive FREE admission to Imagination Station every day.

**Discover.ed Digital Newsletter**
Our newsletter lets educators know what is going on at Imagination Station and includes great hands-on activities for the classroom. Call today at 419 244 2674 or sign up online to get this valuable resource in your inbox.

**Science2GO!**
Look no farther than our gift shop for science materials, kits and student incentives. Educators save 10% on all Science2GO! purchases with proper identification.

**Membership**
We offer special membership pricing for one of our favorite visitors – educators! With proper identification, receive 10% off an Imagination Station membership.
Try this activity in your classroom!

NAKED EGG

**Materials:**
- Large, clear glass or container
- At least 16 oz. vinegar
- Uncooked egg

**Procedure:**
1. Pour at least 16 oz. of vinegar into a clear cup or glass.
2. Place an egg into the vinegar for 12 - 24 hours. Make sure the egg is completely submerged.
3. Keep the egg in the refrigerator while you wait for the shell to dissolve.
4. VERY carefully pull the egg out of the vinegar and gently rub away the shell with your fingers.

**Safety Guidelines:**
*Do not eat the naked egg. It has a significant amount of vinegar in it, and it is raw. It will not taste good."

**The Science:**
The shell of an egg is made primarily of calcium carbonate. If you soak the egg’s shell in vinegar (which is about 4% acetic acid), you start a chemical reaction that dissolves the calcium carbonate shell. The acetic acid reacts with the calcium carbonate in the egg shell and releases carbon dioxide gas that you observe as bubbles on the shell. The egg’s insides remain intact and are held together by the two fragile membranes just inside the shell.

**Extension Activity:**
- Carefully try bouncing the egg from different heights. How far can you drop it before it breaks?
- Soak a naked egg in corn syrup for 24 hours (a hypotonic solution). What happens to the egg?
- Now place the egg in water for 24 hours (a hypertonic solution). What happens to the egg now?

**Online Resources**
We’re not shy about sharing our knowledge — it’s what community partners do! That’s why we’ve put it all online. All of our demonstrations and activities at Imagination Station have supplemental resources and curriculum for your classroom.

**Activities**
Need an idea for a hands-on activity that demonstrates a non-Newtonian fluid? We have an Ooblek activity that will teach your students this concept while having an ooe-y-gooey good time!

**Educator Guides**
Educator Guides are also available for each Learning World so you can get the most educational benefit for your students out of a field trip.

**Curriculum Standards**
All Imagination Station curriculum is aligned to the new Ohio Standards, making a visit to or from Imagination Station an extension of your classroom learning experience. You can find those standards and how they align to our exhibits and demonstrations online as well.

**Demonstration Videos**
Our EXTREME Scientists have fun each week doing demonstrations (that sometimes get messy) with the anchors in local TV studios or out in the field. If you want to give your students a flavor of what to expect in a demonstration, or to introduce them to a science concept you will be covering in the classroom, we have archived some of our past episodes online at our website, and all of them can be found on our YouTube Channel at youtube.com/user/ImaginationStationOH.

Check out imaginationstationtoledo.org today to see what we have to offer.
Field trips are a great way to take your students’ learning outside of the classroom and into real world application. We know fields trips are a big undertaking, and as your partner we want to make it as fun and stress-free as possible. Here are some tips to make your field trip a breeze!

Field Trip FAQ’s

Define “group.”
Groups must consist of at least 15 paying visitors, certified teachers excluded.

How far in advance do I register?
All groups must register at least two weeks before your trip.

What’s the payment procedure?
After making your reservation, you will receive an invoice only via email. Please submit a 10% deposit or a signed purchase order for the full amount to hold your date in our system. Please provide our payment policy along with your invoice when submitting to your finance department. We accept final payment in the form of check or credit card (MasterCard, Visa or Discover) upon check-in.

Can students or chaperones use their own membership?
Sure! If anyone in your group is using their Imagination Station membership, we must be provided with the name on the membership card along with their membership number at least two weeks prior to your trip. Please specify how many children and adults will be using each membership.

Can we “brown bag”?
Absolutely. Reserved groups may bring brown bag lunches. Your confirmation packet will provide you with your scheduled 25-minute lunch time. This packet will be mailed no later than two weeks before your scheduled trip.
Field Trip Guidelines

The Gizmo Pledge
Gizmo is Imagination Station’s Lab’rator mascot, and he wants everyone to have a fun field trip experience! We ask that all groups know their schedule of activities and understand the following guidelines:

- Children (up to and including grade 12) must stay with their assigned chaperones at all times.
- Imagination Station is a gum-free and smoke-free facility.
- Please walk while visiting the science center.
- Please enjoy your food in the Atomic Café or the designated location.
- Smile and have a good time!

Chaperones
No one wants their field trip to turn into a chapter from “Lord of the Flies.” Adult chaperones are required for all student groups. Groups must meet the required 7:1 ratio of children to adult chaperones. Chaperones must be 18 years or older and no longer in high school. If the required ratio is not met on the day of your visit, you will be charged a $10 per chaperone shortage fee.

Cancellations
Stuff happens. Sometimes field trips need to be canceled. We understand. If you must cancel a reservation, please call and talk to a Reservation Specialist at 419-244-2674 ext. 250, and you will be given a cancellation number.

Policy for cancellations is:

- If it is prior to 2 weeks before your visit, you will receive a full refund.
- If it is within 2 weeks of your visit, your 10% deposit will be forfeited.
- If you do not cancel with our Reservation Specialist and have not been given a cancellation number, the next time you or your group/school reserves a spot via phone or on our website, you’ll be required to pay the deposit at the time the reservation is made.
- If a student is unable to attend a scheduled field trip that takes place, discount passes for future visits to Imagination Station will be made available for those students.

Box Lunches
Box lunches are available from our Atomic Café! They’re a great way to ensure your students get a meal, minus the hassle of scrambling to replace forgotten lunches, transporting and making sure lunchboxes get back home.

We offers a variety of tasty options:
Mini Corn Dog Meal - $5.49
Personal Cheese Pizza Slice Meal: $5.49
Chicken Nugget Meal: $5.49
Hamburger Meal: $5.49
Hot Dog Meal: $5.49
Turkey Croissant Meal: $7.99
Ham Croissant Meal: $7.99
Salad with Chicken: $7.99
Vegetarian Chef Salad: $7.99

For additional information on box lunch offerings, please visit us online at imaginationstation.toledo.org/educator/field-trips.

Please note: Box lunches must be ordered and paid in full at least two weeks prior to your visit.
Imagination Station provides this FREE workshop for all educators interested in learning more about the science center. This program will empower you with inside knowledge of the exhibits and familiarize you with all our educator resources. Chaperones are welcome!

2018 Prep4Ed dates:
- Tuesday, October 2
- Tuesday, November 13
- Tuesday, December 4

2019 Prep4Ed dates:
- Tuesday, January 8
- Tuesday, February 5
- Tuesday, March 5
- Tuesday, April 2
- Tuesday, May 7

All sessions run from 4 – 5:30pm. Reservations are required. To reserve your space, call 419-244-2674 ext. 250.

Partnerships
As a community education resource, we partner with other organizations to enhance your field trip experience. Here are some partnerships that could enhance your field trip experience:

BCI Science School
Hey Fourth Grade Educators!
Did you know that we’re your resource for Criminal Investigation STEM curriculum? The Bureau of Criminal Investigation (BCI) Science School’s free lesson plans will expose students to the careers of forensic science, criminal investigation and related careers at an early age. Students conduct hands-on, inquiry-based experiments in class and solve relevant challenges using critical thinking and problem-solving skills. Videos are shown throughout the lessons that “take” students into the field with BCI agents and into the laboratory with forensic scientists.

To learn more about the curriculum and the program, visit us online at imaginationstationtoledo.org/educator/educator-resources.

ProMedica History Wall
Right next door to Imagination Station is ProMedica’s new Downtown Campus, located in the Steam Plant. The Steam Plant features a history wall compiled by the Toledo History Museum that chronicles six distinct eras in the site’s storied history, from its earliest settlements in the 17th century to its rebirth in 2017. We are happy to arrange a tour guide who will take your class to the Steam Plant facility next door for a FREE tour of the history wall.

Please call 419-244-2674 ext. 250 to let one of our Reservation Specialists know you are interested in a tour when making your reservation.
To reserve a field trip, call 419·244·2674 EXT. 250 or visit us online at imaginationstationtoledo.org.

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<th>Field Trip Rates*</th>
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<tr>
<td>Lucas County Group Rate</td>
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<td>Non-Lucas County Group Rate</td>
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<td>Certified Teachers</td>
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<td>Think Tank Workshops</td>
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<td>In addition to Imagination Station admission</td>
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<td>Simulator Theater Ride</td>
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<td>In addition to Imagination Station admission (must be at least 42&quot; tall to ride)</td>
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*Prices subject to change

**Group Rate Eligibility:**
- At least 15 paying visitors (excluding certified teachers).
- Meet the ratio of 7:1 children to adult chaperones (all chaperones must be at least 18 years old and no longer in high school).

Regular rates apply to those who plan to pay on arrival and those who do not have a confirmed reservation number.

Please arrive at our main entrance on Summit Street to drop off and pick up your group.

RESERVE TODAY!
Think Tank Workshops Spark Imagination

Add a Think Tank Workshop to your field trip! Your students will get 45 minutes of structured curriculum through hands-on activities led by an Imagination Station team member. From cow eye dissection, to creating circuits, to any of the other four exciting workshops offered, your students will experience informal science education that is designed to get them thinking while having fun.

More information is provided on pages 8 – 9.