

# Earth Matters

Rethink the future

Explore the changes happening on Earth and how we can innovate solutions for a more sustainable future.

PAGE 4




Created by

**scitech**  
PERTH • AUSTRALIA

**imagine**  
exhibitions

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Foundation



## Letter from the President

I have loved seeing children's reactions when they enter McWane's Adventure Halls and see the Curious George exhibit. They are so excited to see a beloved friend. Parents love Curious George, too. In fact, I grew up reading the books in the 1960s, and I enjoyed sharing them with my son many years later.

The success of the exhibit has led me to think about curiosity, and the pivotal role it plays in learning. McWane's mission statement is "To spark wonder and curiosity about our world through hands-on learning." Regardless of our age, we open the door to learning when we begin to ask questions about our experiences in the world. Questions like Why? Or How? Or What If? Curiosity and imagination have led to some of the most important scientific discoveries in our modern age.

When my son was a child he was constantly peppering me with questions. I have to admit it could be exhausting sometimes, and the temptation was to distract him or even tell him to stop asking. But sometimes his questions would be the introduction to wonderful conversations as we explored potential answers together. Even when I knew the answer, I loved helping him work things out himself, and I often found those conversations would teach me a thing or two as well.

I hope your next visit to McWane will encourage your child to ask questions. Take a few minutes to explore those questions together. Your child might not be the only one who learns something!

Amy Templeton  
President and CEO

# Contents



## COMING SOON TO IMAX

Check out all the amazing movies we have in store



## EARTH MATTERS EXHIBIT

What can this exhibit teach us about sustainability?



## NATIONAL VOLUNTEER WEEK

Join us in celebrating our amazing volunteers!



## ITTY BITTY CORNER

We have the perfect craft for your little one on a rainy day!



## TURTLE-Y AWESOME

Learn about McWane's turtles and what it takes to care for them!



## LET'S GET CURIOUS!

Some familiar faces are at McWane to teach us all about STEM!

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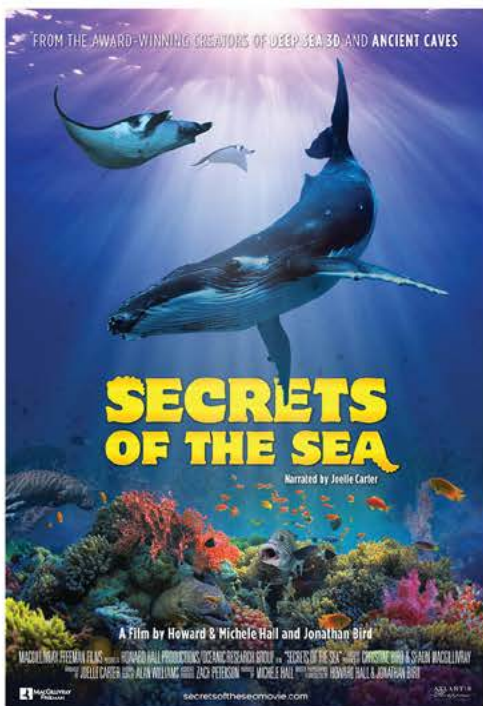
Nina Botsford, Frank Caley, Sheri Cook, William Dow, Norman Jetmundsen,  
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Zac Riddle, Ashley Robinett, Bowen Thagard, Forest W. Whatley, Jr., TJ Willings,  
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*McWane Science Center is a 501(C)(3) nonprofit organization.  
Our mission is to spark wonder and curiosity about our world through  
hands-on science experiences*

# THIS SEASON IN IMAX

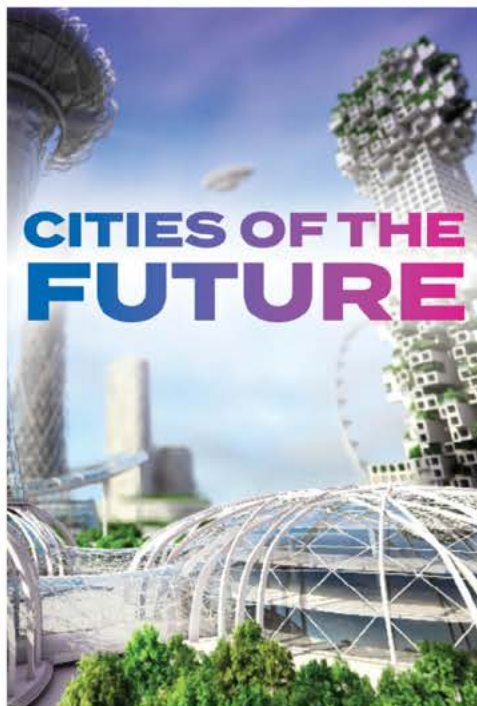
IMAX DOME

IMAX SEASON PRESENTED BY



## Secrets of the Sea

Prepare to meet some of the ocean's strangest and most spectacular creatures in the new film *Secrets of the Sea*, narrated by Joelle Carter. From adorable pygmy seahorses and opalescent squid, to manta rays, tiger sharks, a coconut octopus, and much more, *Secrets of the Sea* takes you face-to-face with an astonishing array of marine critters, showing the fascinating ways they interact with each other and their environment. Filmed in the Philippines, Mexico, Tahiti, Indonesia, Palau, Hawaii, California and other locations, and featuring more than 70 different marine species, *Secrets of the Sea* reveals the many wonders and mysteries of our ocean world and demonstrates the critical importance of marine biodiversity to keeping our oceans healthy.



## Cities of the Future

Imagine stepping 50 years into the future and finding smart cities designed to be totally sustainable. Renewable energy is our primary power source, space-based solar power provides solar energy 24 hours a day, everything is recycled, and you have your own individualized pods that run on little or no energy. You can also ride an electric flying vehicle! Traffic jams are a thing of the past. This isn't science fiction. Engineers are making plans for a sustainable world right now. And it's coming to the giant screen! *Cities of the Future* is produced by MacGillivray Freeman Films in association with the American Society of Civil Engineers, the same award-winning team that brought you *Dream Big: Engineering Our World*.



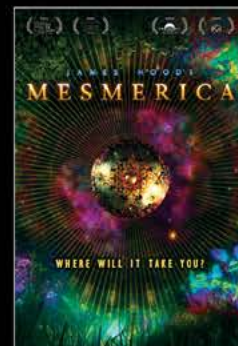
DUNE PART 2  
MARCH 1



GODZILLA X KONG:  
THE NEW EMPIRE  
MARCH 29



D-DAY: NORMANDY 1944  
MAY 24



MESMERICA  
MARCH - MAY  
CHECK EXACT DATES ONLINE

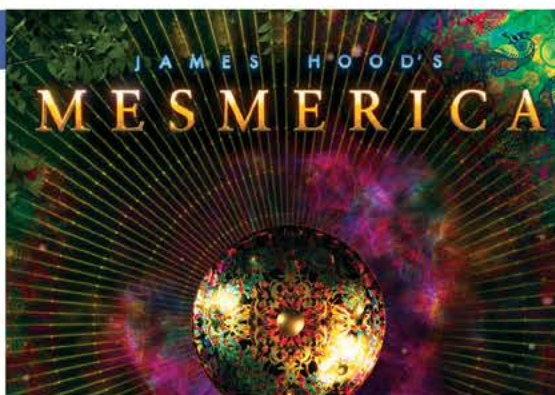
## SPECIAL SHOWING

### MESMERICA

March 22-24 / additional dates to be added

James Hood's *MESMERICA* is a groundbreaking immersive audio-visual experience, exhibiting in planetariums and dome venues across the US and Canada. Combining James Hood's music with carefully curated 3D animations from artists around the world, the award-winning show is an enormous hit with both audiences and planetarium operators alike, breaking all existing records for full-dome/planetarium music shows. The hour-long show features 360° projections and stunning 7.1 surround sound. In 2019 *Mesmerica* was nominated for the Producers Guild of America's first ever Innovation award.

Tickets can be purchased at [www.tickets.mesmerica.com/birmingham](http://www.tickets.mesmerica.com/birmingham)



# PLAN AHEAD



## History Makers: Women in STEM

### Every weekend in March

Celebrate Women's History Month each weekend in March with hands-on experiences that highlight the lives and accomplishments of past and present boss ladies of STEM.

## Math in the Museum

### March 14 - 16

Welcome to McWane – we have Pi! Join us for an extended celebration of shapes and numbers as we explore the patterns of our world through mathematics.



## Brain Awareness Week

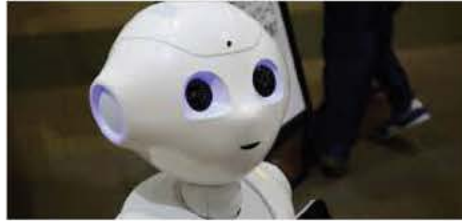
### March 27 - 30

It's time for a brainstorm with UAB Neuroscience! Join us this week for dissection workshops that will blow your mind and demonstrations that will test your senses. Your participation is a no-brainer.



## The Great McWane Egg Drop March 30

Humpty Dumpty sat on a wall, Humpty Dumpty had a great fall, Humpty Dumpty survived because of engineers like you! Win our golden egg trophy if your egg drop contraption survives the fall from McWane's roof.



## Robotics Week

### April 10 - 14

Dive into the exciting world of robotics with a full week of experiences highlighting present and future advancements in technology. Participate in coding challenges, program mini-robots, and discover the limitless possibilities that emerge when creativity meets technology.

## Earth Weekend

### April 20 & 21

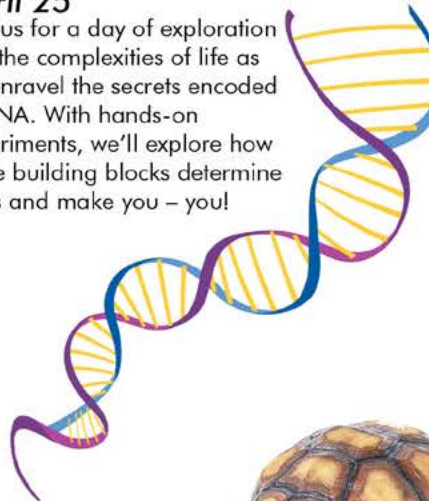
We're kicking off our celebration of Earth Day with a weekend of wonder showcasing the uniqueness of our planet and the importance of protecting it. Clean up oil spills, design a litter getter, create eco-friendly art, and more during this weekend for Earthlings like you.



## DNA Day

### April 25

Join us for a day of exploration into the complexities of life as we unravel the secrets encoded in DNA. With hands-on experiments, we'll explore how these building blocks determine traits and make you – you!



## Asian American and Pacific Islander Heritage Month

### Every weekend in May

Celebrate Asian American and Pacific Islander Heritage Month each weekend in May with hands-on experiences that highlight the lives and accomplishments of past and present AAPI STEM innovators.

## May the 4<sup>th</sup> Day

### May 4

Transport yourself to a galaxy far, far away and immerse yourself in the science of the Force. Build a droid, test the limits of physics, and witness the chemistry of lightsabers on this special day where science meets fiction.



## Astronomy Week

### May 15 - 19

Calling all stargazers! Join us for a week of stellar experiences that will magnify the way you see space. From water filters to camera phones, discover the many ways space travel has impacted our everyday life.



## World Turtle Day

### May 23

Shell-abrate the wonders of turtles by meeting some of McWane's animal ambassadors! We'll explore freshwater habitats and conduct experiments that highlight the importance of protecting these special, shelled friends.



# DON'T MISS OUT ON THE FUN!

You could go to all of these special days\* for FREE if you had a membership!

Find out more about the benefits of membership on page 8.

\*special days at McWane Science Center are not the same as ticketed events. Members may get discounts to certain ticketed events on a event by event basis. For more information, email [membership@mcwane.org](mailto:membership@mcwane.org)

## Spring Word Search

S Z E B A A H E V O B Y H C W E S C R S  
 K N T E S B C Y T M L L R X A R T A A Y  
 L A V O T O G L Z R I I O A S L F Y I U  
 N E U Z X T B C K D P G R S D D U I N B  
 W P D K H A T X T H F G R E S W W X F I  
 K B V I Y N O U Q T P G T A N O I Q A O  
 C X W S H Y Z F H K Z A K N T E M E L D  
 P H O T O S Y N T H E S I S Z I W I L I  
 Y R H I B E R N A T I O N K U C O A S V  
 P P P S S P R I N G F O R W A R D N L E  
 S P O Q P C M O F X H C N Y Q N F L V R  
 U E B L F H V I V M I K W B J M D G U S  
 N C S K L G E R M I N A T I O N L A Z I  
 S O A U B I Q T E T E N V E J L E R Z T  
 H S T Z E P N A P Q J Y K O O I O D B Y  
 I Y I A L N J A R I U R Q R T F S E A M  
 N S Z M F S T U T V B I K U R C O N R T  
 E T R M D C R R P I O T N D P L I K A R  
 P E D L E N J Z B F O C V O I C N P G E  
 W M F H S Q F C U V D N J V X T A D H G

### KEY

- Photosynthesis
- Germination
- Sunshine
- Equinox
- Spring Forward
- Polination
- Hibernation
- Ecosystem
- Renewal
- Rainfall
- Biodiversity
- Migration
- Blossom
- Botany
- Garden

# Earth Matters

## Rethink the future

Discover the intricate web of connections that bind our planet together in *Earth Matters*—an immersive exploration of the interplay between air, land, and water. Embark on a journey where you'll unravel complex challenges, elevate your own ideas, and envision a more sustainable future, starting right in your own backyard.

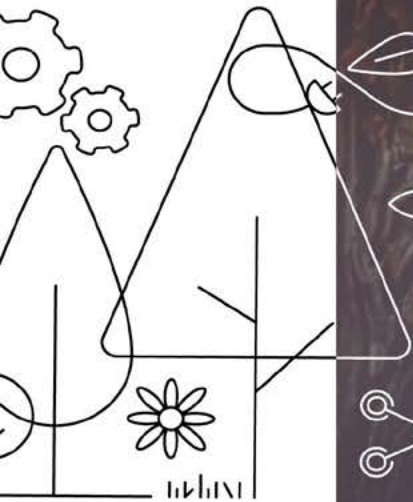
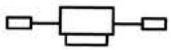
Delve into the inner workings of a tree, tune into the stories of endangered species, and witness sweeping visualizations depicting the transformations occurring in our natural world. Gain insights into pressing issues such as biodiversity loss, escalating global temperatures, and strategies for carbon emission management.

Experience the dynamic interactivity of *Earth Matters* with a groundbreaking 3D projection map illustrating the evolving ecosystem

of a coral reef, responding in real-time to visitors' choices and actions. Engage with exhibits like a mechanical pump showcasing the staggering water footprint behind everyday consumables, including a single chocolate bar.

Tom Zaller, CEO of Imagine Exhibitions, expressed enthusiasm about the collaboration with Scitech to present *Earth Matters* at McWane Science Center. He noted, "*Earth Matters* offers families a unique opportunity to ignite their creativity and explore STEM-based solutions for real-world challenges, all while contributing to the betterment of our planet."

Join us at McWane Science Center as we proudly host this innovative exhibit until May 12th, inviting visitors of all ages to deepen their understanding of our interconnected world and inspire positive change.





## Learn how to track and calculate your average daily carbon footprint!

This activity is inspired by the Understand exhibit at the entrance to the *Earth Matters* exhibition. It showcases the impact humans have on the Earth (*pictured to the right*).

Carbon is a naturally occurring resource that we burn to produce energy. It is also one of the major factors of global warming. Almost everything we use relies on carbon in some way. For example, when we turn on lights, watch TV, charge electronics, or drive to school and work, we're using power that often comes from burning fossil fuels like coal or natural gas, which releases carbon into the air. Your carbon footprint is your personal creation of carbon in your life. Here is one way you can calculate your personal carbon footprint:

### Materials Needed

- Paper
- Internet access
- A grown-up's assistance for some questions

### How to Calculate Your Carbon Footprint

1. **Make a List:** First, make a list of all the things you do that might create greenhouse gases. This could include things like using electricity, riding in a car, eating food, or heating your home with gas!
2. **Use a Calculator:** There are special calculators online that help you figure out how much carbon dioxide you produce from different activities. Here are a few to check out:
  - [www3.epa.gov/carbon-footprint-calculator/](http://www3.epa.gov/carbon-footprint-calculator/)
  - [coolclimate.berkeley.edu/calculator](http://coolclimate.berkeley.edu/calculator)
  - [carbonfootprint.com/calculator.aspx](http://carbonfootprint.com/calculator.aspx)
3. **Enter Your Activities:** This is the part where you might need an adult's help. In the calculator, you enter information about the activities you do. For example, how



much electricity your family uses, how far you travel in a car, and what types of foods you eat.

4. **Calculate Your Footprint:** Once you enter all your activities, the calculator will add them up and give you a number. This number tells you how much carbon dioxide and other greenhouse gases you produce each year.
5. **Find Ways to Reduce:** After you know your carbon footprint, you can think about ways to reduce it. Maybe you can turn off lights when you're not using them, walk or bike instead of riding in a car, or eat less meat, which can help lower your carbon footprint. Remember, even though you're just one person, every little bit helps when it comes to taking care of our planet!

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exhibitions

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# Thank you, Volunteers!

McWane Celebrates National  
Volunteer Week



In April, we have the opportunity to express our gratitude to the remarkable volunteers who played a pivotal role in shaping the McWane experience over the past year. National Volunteer Week serves as a dedicated celebration to acknowledge the ways our volunteers contribute to our mission of sparking wonder and curiosity about our world. Whether working diligently behind the scenes or engaging directly with guests, each volunteer impacts the visitor experience at McWane.

Over the past year, our volunteers have accomplished so much and have made a positive impact all over McWane. We have had the chance to partner with volunteer groups from the greater Birmingham community for special events and cleaning. The World of Water volunteers have been instrumental in assisting our aquarists, tending to McWane's aquatic residents through feedings and habitat maintenance. Collections volunteers have played a crucial role in identifying, preserving, and cataloging additions to our fossil collections, enabling further study and educational use. Science Engagement volunteers engage visitors in hands-on science experiences, showing how STEM can enrich our lives and communities.

Reflecting on the past year, it's clear that without our volunteers, McWane would be a very different place. We extend our deepest gratitude to these individuals, recognizing that their commitment is the driving force behind our non-profit's continued progress.

We encourage everyone to take a moment to express gratitude to a volunteer the next time you encounter them. For a glimpse of our incredible volunteers in action, visit our social media pages. Their contributions are truly the heartbeat of McWane's success!



**21,000**  
volunteer hours in  
2023



**194**  
Teen Volunteers:



**50**  
Adult Volunteers:



**15**  
Volunteer Groups:



## Rainy Day Science

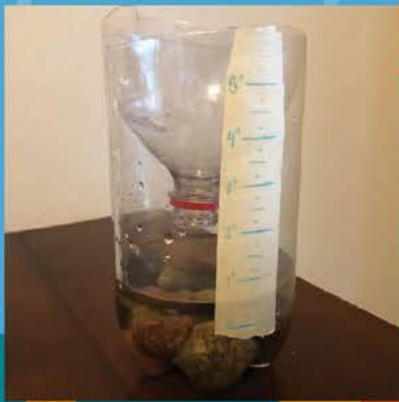
Have you ever heard the phrase, "April showers bring May flowers"? Funnily enough, April is the fifth wettest month in the United States – June is the rainiest month on average. That said, April kicks off the growing season by providing spring-flowering plants with the nutrients to thrive in the coming months. Rainfall is measured by catching water in a rain gauge for the purpose of better understanding rain patterns. Researchers may record rainfall over a long period of time to prepare for crop irrigation and make more accurate rainfall predictions in the future. Gather your own rainfall data by creating a plastic bottle rain gauge for your backyard.

### Materials:

- Empty 2 liter bottle
- Small stone or pebbles
- Tape
- Waterproof marker
- Scissors
- Ruler

### Instructions:

- 1 With adult supervision, carefully cut the top off the bottle just above the label. Remove the label.
- 2 Turn the cut bottle top upside down and place it inside the top of the bottle like a funnel. Tape in place.
- 3 Using a ruler and a permanent marker, make a copy of the ruler's millimeter markings on the side of the bottle starting at 0 just above the base.
- 4 Add a small handful of pebbles to the bottle and fill with water to the 0 millimeter marking.
- 5 Place the rain gauge outside and record rainfall measurements in a nature journal. How does the rainfall change month to month? Which week during the month was the rainiest?



ittybitty  
MAGIC CITY  
CORNER



Join us at Itty Bitty Magic City this Spring as we explore the many wonders of our world through weekly program offerings! See our website for program times and locations.

# Camp McWane



## Spring Camps

March 25 - 29

Registration Closes March 18

## Summer Camps

June 3 - Aug 2

Registration Open Now!

Learn more at [mcwane.org/learning/parents/camps](http://mcwane.org/learning/parents/camps) and remember that McWane Members get a discount on camps!

# A TURTLE'S LIFE AT MCWANE SCIENCE CENTER

What is it like to be a turtle in the McWane Science Center's World of Water? Our Marketing staff went to find out and took this adorable picture!

Life is not all just hanging out on the rocks, turtles swim with friends around the Cahaba River Biorama and eat a great diet of shrimp and fish and nutritious gel! When Nichole Cleveland, long time Aquarist, pointed out all of our World of Water creatures have special diets and regular feeding schedules, she thought there might be an opportunity for telling the story to our supporters of the animal's needs. You can support our animals by giving to McWane Science Center and through giving, you help fund the care and feeding of our turtles and their friends.

Our Give a Turtle campaign allows you to honor someone special who will get named recognition in the World of Water for 2024. Your honoree will also get a back-of-house tour so they can go see



for themselves what it is like to be a turtle at McWane Science Center.

**To learn more about how you can support our turtles and their friends, visit [mcwane.org/donate](https://mcwane.org/donate)**



 **McWane Science Center**

## *New Beginnings,* **Endless Learning:** **Blossom with Membership!**

Membership at McWane opens up a world of learning and exploration for all ages. As a member, you gain access to a plethora of engaging exhibits, interactive displays, and educational programs around the museum for FREE all year-round. Additionally, members receive exclusive benefits such as discounted tickets to IMAX movies and documentaries and free member events. Whether you're a family looking for fun outings or an individual seeking to expand your knowledge, McWane Science Center membership offers endless opportunities for discovery and enjoyment.

**To learn more about the benefits of membership, visit [mcwane.org/become-a-member](https://mcwane.org/become-a-member)**

# Curious George™

## Let's Get Curious!



Open now until May 5<sup>th</sup>

Nationally Sponsored by



Exhibit Created by



Curious George television series merchandise © Universal Studios. Curious George and related characters created by Margret and H.A. Rey, are copyrighted and trademarked by Houghton Mifflin Company and used under license. Licensed by Universal Studios Licensing LLLP. All rights reserved. The PBS KIDS logo is a registered mark of PBS and is used with permission.

The insatiable curiosity of Curious George - the little monkey who has captured the imagination and hearts of millions of children and adults for 65 years - comes to life at McWane Science Center. The new exhibit, *Curious George: Let's Get Curious!*, will introduce young children to Curious George's world and lead visitors on a fun, meaningful interactive math, science and engineering-based adventure.

Based on the familiar characters in H.A. and Margret Rey's classic stories published by Houghton Mifflin, the new Curious George exhibit inspires young children's natural curiosity as they explore early science, math and engineering through hands-on interactive play. The immersive exhibit environment takes place in the neighborhood where Curious George lives with his friend, The Man with the Yellow Hat. Visitors will recognize familiar characters and places featured in the classic stories and the television series on PBS KIDS. The exhibit's content is based on educational standards developed by Minnesota Children's Museum and an expert advisory panel to the PBS KIDS series, as well as national science and math standards for young children.

### Inside the Exhibit:

- **Apartment Building**  
Operate wheels to move George on pulleys from window to window. Climb the fire escape and climb inside to play with color, light and shadow.
- **Sidewalk Produce Stand**  
Play customer or salesperson and explore shape, sorting, weighing and counting with fruit and vegetables.
- **Construction Site**  
Design a building, make use of a bounty of building materials and get to work constructing different structures and using machines to move materials.
- **City Park**  
Enjoy the urban green space: rest or give a hug to a full-size George and take a picture! Our youngest visitors will enjoy our busy wall activities for babies and toddlers.
- **Mini Golf**  
Use pipes, ramps, funnels, turntables, bumpers and force to experiment with physics and engineering as you putt through three holes of mini golf.

### And More!



 McWane Science Center

# TINKER CLUB

FREE AFTER SCHOOL  
PROGRAMMING FOR  
CHILDREN AGES 5-6 &  
THEIR CAREGIVERS  
DURING THE MONTHS OF  
MARCH, MAY, AUGUST, &  
OCTOBER.



**MARCH REGISTRATION OPEN NOW!**

TINKER CLUB MEETS EVERY TUESDAY. SPACES ARE LIMITED, SO SCAN THE QR CODE OR VISIT [MCWANE.ORG](http://MCWANE.ORG) TO LEARN MORE TODAY!



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