In this issue, we celebrate what is in the DNA of our beloved Mississippi Children’s Museum – being fixers! At both Jackson and Meridian campuses, we continuously strive to provide creative solutions to the challenges our children face. This culture of fixing is one of the reasons that our institution was recognized with an Institute of Museum and Library Services National Medal! This award is the nation’s highest honor given to museums that display extraordinary service and impact in their communities.

Another summer win was opening the first new exhibit experience in a decade at our Jackson campus. WonderBox is a state-of-the-art makerspace, now available at both campuses, that showcases a history of makers and fixers from around our state, while also creating a space for children’s inventions and ideas to come to life.

Speaking of children’s inventions, MCM hosted eight weeks of summer camps and welcomed over 100 campers as some of the first guests to create, design, and experiment in the new WonderBox exhibit! Some of these inventions can be admired in this Playbook.

While we encourage children to be problem-solvers and think of innovative ideas to make our future better, we are also faced with the task of being problem-solvers ourselves. Launch into Learning, a program that was created in the middle of the pandemic when virtual learners needed a safe and reliable environment to complete their schoolwork, is continuing for its second consecutive year as an after-school camp. We are currently serving around 100 students, and have a waiting list for future availability.

As we say farewell to a summer that was full of excitement in both Meridian and Jackson, we look forward to fall, but know that we are again managing the protocols and decisions on how best to assist children and families during a pandemic. We will continue our quest to be fixers for the challenges we see around us, and hope to inspire our future fixers as they prepare for a world of unknown challenges and solutions that have yet to be discovered.

Gratefully,

Susan Garrard,
Mississippi Children’s Museum President/CEO

The MCM Playbook
Fall 2021 • Volume 6 • Issue 4

STEAM EXPERTS
IMLS AWARD
THE CRAFT

If you could create a machine to solve a problem or change something in the future, what would that machine look like? Visitors in our new WonderBox exhibits, in Jackson and Meridian, answered this question by designing their ideas for machines of the future and explaining what their inventions would change or solve. We hope that their ideas spark creativity for you, our Future Fixers!

Ruthie, 5 years old
"Cleaning Robot"

Adalynn, 8 years old
"Barbie Fashion Machine"

Strick, 7 years old
"Space Food Robot"

Liam, 8 years old
"Security Robot"

Damien, 6 years old
"Flying Car"

Fletcher, 6 years old
"Pumpkin Harvester"

Brett, 6 years old
"Time Travel Machine"

Jillian, 8 years old
"Space Suit for Cats"

FutuRE FIXERS!

FREE POSTAGE:
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Chad McInnis Printing
P.O. BOX 12870
Jackson, MS 39201
Permit No. 219
JACKSON, MS 39236

Gratefully,

Susan Garrard,
Mississippi Children’s Museum President/CEO

"Security Robot"
by Liam
8 years old

"Space Food Robot"
by Strick
7 years old

"Flying Car"
by Damien
6 years old

"Pumpkin Harvester"
by Fletcher
6 years old

"Time Travel Machine"
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"Space Suit for Cats"
by Jillian
8 years old

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The Mississippi Children's Museum is excited to announce Emily Hoff as the new Executive Director at MCM in Jackson. She has been part of the MCM team for over six years, where she has served as the Director of Development. Emily has raised millions of dollars for MCM, while developing relationships with both MCM and MCM-Meridian staff, statewide donors, and community leaders. Her experience serves as a solid foundation as she transitions her day-to-day responsibilities to focus on the overall well-being and daily operations at MCM in Jackson. Emily, a native of Jackson, is married to Kern Hoff and they have two children, Katherine and William. She is an active member in the Junior League of Jackson, as well as her church, First Presbyterian Church of Jackson. Emily will work closely with MCM’s President and CEO, Susan Garrard, as well as MCM-Meridian’s Executive Director, Liz Wilson, in executing a strategic plan for the next ten years of innovation and excellence for the children of Mississippi.
The Mississippi Science Festival (MSF) is a statewide initiative synergized by the LeFleur Museum District (LMD) and presented by C Spire. Events will take place on September 16-18, 2021.

MSF brings the community together to celebrate careers in STEAM (Science, Technology, Engineering, Arts, and Math) and has introduced children to STEM concepts and industries that are available in Mississippi. Exhibitors and activities will be at all four LMD museums – the Mississippi Sports Hall of Fame and Museum, the Mississippi Agriculture & Forestry Museum, the Mississippi Children’s Museum, and the MDWFP’s Mississippi Museum of Natural Science. Guests can explore all four museums for one low ticket price of $10.

Temple Grandin is a professor of animal science at Colorado State University, and she has been a pioneer in improving the handling and welfare of farm animals. Dr. Grandin’s achievements are particularly remarkable because she has autism. At age two she had no speech and all the signs of severe autism. Many hours of speech therapy and intensive teaching enabled Temple to learn speech. As a teenager, life was hard with constant teasing. Mentoring from her high school science teacher and her aunt on her ranch in Arizona motivated Temple to study and pursue a career as a scientist and livestock equipment designer. Dr. Grandin was awarded her Ph.D. in Animal Science from the University of Illinois in 1989. She has published numerous books and technical papers, as well as a New York Times best seller, Animals in Translation. She also has a popular TED Talk.

For this year’s MS Science Fest, we are excited to welcome American scientist and activist, Temple Grandin, to speak about her experiences with science, agriculture, and autism awareness. Grandin will speak at the MS Agriculture Museum, Friday, September 17 and at the Mississippi Children’s Museum on Saturday, September 18. She will be speaking on both days between 11:00 a.m. – 12:00 p.m. followed by a Q & A and then a book signing from 1:00 – 2:00 p.m.

Science Saturday in Meridian
Saturday, September 18 | 9:00 am - 4:00 pm

MCM-MERIDIAN HOSTS CELEBRATORY EVENTS IN CONJUNCTION WITH THE MISSISSIPPI SCIENCE FESTIVAL!

Mississippi Science Fest
Saturday, September 18 | 9:00 am - 4:00 pm

The LeFleur Museum District invites children and families to interact with nationally renowned STEAM professionals, engage in hands-on activities, and explore exciting experiments and exhibits. On this special day, visitors can purchase a $10 ticket allowing them to visit all four LMD museums. A free shuttle will be provided between locations and food vendors will be onsite throughout the day at all museums.

Science After-5
Thursday, September 16 | 6:00 pm - 7:30 pm

The community is invited to help kick off the 6th Annual MSF at one of Jackson’s newest and most eco-friendly gathering spots, the Ecoshed, for Science After 6. Tickets are $15 each and include bits and bytes by the Ecoshed Food Lab and out-of-this-world cocktails by Spacebar. This event is sponsored by C Spire and Southern Farm Bureau.

Field Trip Friday
Friday, September 17 | 9:00 am – 1:00 pm

The four LMD museums are inviting students to attend a special STEAM-themed Field Trip Friday. The museums will host a day dedicated to promoting STEAM subjects and increasing science literacy for field trip guests.

Keynote Speaker Temple Grandin
Ag Museum | Friday, September 17 | 11:00 am - 2:00 pm
MCM | Saturday, September 18 | 11:00 am - 2:00 pm

TEMPLE GRANDIN
ANIMAL SCIENTIST & AUTISM SELF-ADVOCATE

Temple Grandin is a professor of animal science at Colorado State University, and she has been a pioneer in improving the handling and welfare of farm animals. Dr. Grandin’s achievements are particularly remarkable because she has autism. At age two she had no speech and all the signs of severe autism. Many hours of speech therapy and intensive teaching enabled Temple to learn speech. As a teenager, life was hard with constant teasing. Mentoring from her high school science teacher and her aunt on her ranch in Arizona motivated Temple to study and pursue a career as a scientist and livestock equipment designer. Dr. Grandin was awarded her Ph.D. in Animal Science from the University of Illinois in 1989. She has published numerous books and technical papers, as well as a New York Times best seller, Animals in Translation. She also has a popular TED Talk.

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Field Trip Friday in Meridian

MCM-Meridian will host its first-ever Field Trip Friday for East Mississippi. Many classes will be free of charge thanks to the Community Foundation of East Mississippi’s Excellence in Education grant. Field Trip Friday is part of MCM-Meridian’s Science Saturday line up and will feature programming and exhibits centered around STEAM (Science, Technology, Engineering, Arts, and Math).

MS Science Fest
Saturday, September 18 | 9:00 am - 4:00 pm

Discover the marvels of STEAM during MCM-Meridian’s Science Saturday. Held in conjunction with the Mississippi Science Festival in Jackson, this event aims to highlight East Mississippi’s STEAM experts, industries, and organizations. MCM-Meridian’s Science Saturday will join forces with other local cultural institutions including the historic Soulé Steam Works annual Maker Faire Meridian to inspire and embolden children of all ages to pursue careers in STEAM.
STEAM EXPERTS!

The future of Mississippi depends on its ability to boost student performance in STEAM (Science, Technology, Engineering, Art, and Math) subjects. Mississippi’s children will increasingly face fierce competition for jobs from people around the world, and to succeed in the global economy, students will need to establish a stronger foundation in STEAM.

The Mississippi Children’s Museum strives to provide children with access to quality STEAM-based experiences, exhibits, programs, and special events, designed to provide a strong foundation in STEAM subject areas and foster vital learning and life skills. Problem-solving is a key life skill that is necessary in all industries, but is particularly important in STEAM related fields. We asked experts to share how problem-solving plays an important role in their daily jobs, and how we can better equip the next generation of STEAM leaders.

JAKE GARNER
NISSAN

Jake Garner works to solve the question: “How do I build better cars with less resources?” He likes to find creative ways to solve problems, whether this means going on a walk and thinking, or talking with the knowledgeable people with whom he works.

To learn whether or not his solution has fixed the problem, Mr. Garner measures everything he can. He measures how far apart things are, how big or small they are, and how often they happen. If he can measure the solution, then it is easy for him to know if his solution worked.

When asked how solving today’s problems will impact our future, Garner says that every car maker has to figure out how to build cars with the right amount of machinery and people. They want to make sure that they are not only using the best technology, but also that the people who are building the cars have the best environment. The goal is to be sure they are using their resources wisely to protect the people who are building the cars, the people who will buy the cars, and our environment.

THOMAS WHITE, ANTHONY TYLER, & VICKI JORDAN OF DUETT TECHNOLOGY

DuetT Technology recognizes that there are two significant problems for professional barbers. The first is that electric hair clippers overheat after 15-20 minutes of use. The second is that barbers need multiple devices to cut different styles. Their products solve both of these problems, as they do not overheat, and are an all-in-one device, combining clippers, trimmers, and shavers. To brainstorm a solution to this problem, they speak directly to the customers. After they understand the problem, their team makes a list of ideas for how to solve it. Then, they build prototypes of the best ideas using technology, like 3D printers. Finally, they can take these potential solutions to their customers to see if they work.

To find out if their solutions fixed the problem, they once again speak directly to the customers. This helps them determine the best solutions from the ideas they came up with while brainstorming. Solving today’s problems impacts our future by creating building blocks that will allow future generations to solve even the most significant problems.

DR. EMILY TARVER
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER

Dr. Emily Tarver, assistant professor of emergency medicine in the School for Medicine at the University of Mississippi Medical Center, has been working with colleagues at the medical school’s Simulation Center and across multiple specialties at UMMC to develop the Sim Gym, a software-based training program. The Sim Gym will offer clinicians and educators a virtual simulation tool that they can use within the classroom and lecture halls. The COVID-19 pandemic challenged the ability to provide ongoing simulation training. This software will provide both remote and in-person simulation with a virtual patient.

Dr. Tarver says that teamwork is key when brainstorming a project. She works with colleagues across multiple specialties to find meaningful solutions. Each person has unique talents and perspectives that add value to the final plan. To find out if the solution has fixed the problem, her team is constantly testing and refining their work in science. They will hopefully have their first workable software program for the Sim Gym to share with the medical community in Spring of 2022.

Research has shown that we often learn best when we are engaged in the learning activity. In health care education, Dr. Tarver believes that simulation is a wonderful way to achieve this. When we improve health care education in this way, we are better preparing tomorrow’s health care providers. In addition to her job as a clinician and educator, Dr. Tarver is also a mother of four wonderful boys who inspire her every day to build a better future.

WILL YOU BE A FUTURE FIXER, TOO?

NISSAN

JAKE GARNER

WILL YOU BE A FUTURE FIXER, TOO?

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WILL YOU BE A FUTURE FIXER, TOO?

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JAKE GARNER
Innovate, educate, and create a sustainable future where innovation and technology meet to solve real-world problems.

BLOOM SUSTAINABLE MATERIALS

RYAN W. HUNT

BLOOM Sustainable Materials turns algae blooms from a nuisance into a valuable material and stimulates the economy. Ryan W. Hunt, the co-founder and CTO of Algix, has made it his mission to harness the power of algae, a photosynthetic microbe, to provide a renewable material for the future.

His innovation is based on the idea that algae can be a solution to many of our planet’s problems, from pollution to food production. Algix is a company that converts algae into a high-value material called “algae flour,” which can be used in a variety of applications, from food to fuel.

Hunt believes that humans wait too long to fix problems, and that we need more people focusing on the big problems that are hard to solve. His ideas for the future include using algae to create a sustainable alternative to plastic and to clean up polluted waterways.

His company is not just making money, and supporting people who are trying to solve problems, start businesses, and help others. They talk to people who are knowledgeable about the problems, and don’t give up easily. They talk to people who have the problem and are trying to solve it, and if they can build a business around it.

Although it is hard to measure the success of the program, Ms. Milbourne says that they have seen general improvement in crash statistics. Her goal is to one day have “Zero Deaths,” meaning no traffic deaths on Mississippi’s roadways. Together, they work to create an educational program to spread awareness and understanding, in the hopes that people will make better decisions when behind the wheel.

CHRISTY MILBOURNE
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Christy Milbourne is the Safety Education and Administrative Services Director at the Mississippi Department of Transportation. She tries to solve the problem of car accidents caused by distracted driving, drinking and driving, and driving and riding without being properly secured with seat belts and car seats. To solve this problem, she works with other employees and members of other agencies. She even works with people in other states! Together, they work to create an educational program to spread awareness and understanding, in the hopes that people will make better decisions when behind the wheel.

Research and Development Team

EATON

RESEARCH AND DEVELOPMENT TEAM

EATON

Eaton is the R&D team that focuses on innovative solutions for issues of efficiency, safety, and reliability of products, processes, and systems. They develop new products that are not only more efficient and cost-effective, but also safer and more reliable.

In an R&D team, it is often expected that cutting-edge and innovative solutions are generated through abstract ideation events. However, at Eaton, when considering the “best” way to do something, they first identify the characteristics that are concrete requirements, and the ones that are flexible. The flexible characteristics are then optimized, removed, or replaced to provide a tangible improvement to our customer.

At Eaton they have a regimented design process to develop new technologies. They develop requirements to meet the aircraft’s needs, design a product around those requirements, perform analyses to gain confidence in their design, and then complete a robust qualification test program to verify the design. Certifying a new component to fly on today’s aircraft can take 5-10 years due to rigorous safety and reliability requirements.

Air travel in the future is certainly going to look different than it does today. Eaton’s job is R&D is to push the envelope of today’s technology, so that products will be ready to perform on tomorrow’s aircraft. Who knows, maybe one day our kids or our grandkids will travel to space as casually as we travel to the grocery store. Our technology needs to be ready for such a future state!

LOGAN DAVIS
VITAL CARE

Vital Care helps pharmacy operations throughout the country start up, launch, and sustain home infusion pharmacies. This means that patients can get their IV medication at home instead of having to travel to a facility, which helps them live normal lives with their conditions.

The Vital Care team says that problems as opportunities to grow and help people. They brainstorm as a team to solve problems and bring together people with different skillsets and backgrounds to give their perspective on the problem. They work through scenarios, discuss pros and cons, and decide on solutions that are most likely to succeed.

The Vital Care team knows if their solutions have worked by monitoring how many patients successfully receive home IV therapies. If they are receiving their therapies at home, then the solution is working. Helping people access IV therapies in their homes helps them live a more independent life with their conditions, and leads to a better quality of life for the people who need IV therapies. This is also more cost-effective. Some medications need to be administered in a facility, but there are many that can be administered safely at home, which will lower the cost of healthcare.

INSPIRING AND EDUCATING OUR CHILDREN ABOUT THE IMPORTANCE OF CODING BY CARLA LEWIS, CHIEF TECHNOLOGY OFFICER, C SPIRE

Computer science literacy and education is critical if we hope to move Mississippi forward and we appreciate long-standing partnerships like the one we have with the Mississippi Children’s Museum to advance this important initiative. At C Spire, we’ve worked for decades to make sure that something needed to be done about helping move our state forward. Our local and global efforts are helping move our state forward.

At C Spire, we’ve worked to make sure that our residents and businesses have improved technology availability and use. As a technology and telecommunications company, C Spire decided to successfully press for computer science curriculum and education in all K-12 public schools in Mississippi. One of the most important elements of this effort is helping build the workforce of tomorrow today. A big part of the future involves jobs in the science, technology, engineering and math fields, specifically coding and computing.

In the 21st century. We’ve got to get through the smartphone, tablet, apps, big data and streaming video revolutions, it’s time for a coding revolution. Make no mistake. The world is changing right before our eyes. This data is our state’s economy, our nation, and the world is going to be driven by the Internet, digital commerce, and technology innovation. At C Spire, we are committed to ensuring that Mississippi will be at the head of the line in this transformation to a knowledge and technology-based economy.
The CRAFT is an exciting exhibit that presented many new and interesting problems to solve during the design and fabrication. From designing a flight path between the existing duct work, lights, and building systems, to developing a track that moves guests’ unique creations overhead while protecting the visitors below, Working Studio discovered creative ways to solve these challenges. Safety is always a primary concern, so designing a safe way for each individual’s creation to connect to a mechanical system to make them fly took quite a bit of trial and error. Several small prototypes of the system were built to test the process. [Can you guess how the CRAFTs attach to the drive system that makes them fly?]

Allowing visitors the freedom to build unique assemblies pushed us to design foam shapes that could fit together in a variety of ways. [How many different ways can you assemble these pieces?] This is the first exhibit Working Studio have built that allows the guests to “fail” while they are creating. Failure is a great and necessary part of the design and engineering process, as long as it occurs at the correct time and in a safe way. Ensuring that only soft pieces can drop from overhead if a CRAFT is too big or too heavy or not strong enough inspires the guest to solve their own engineering problems and create different designs that might be more successful.

Quite a bit of math and physical science were used to determine the angles required for the track, the strength of the connections to the drive system, the speed at which the CRAFTs move, and the design of the structure that supports the entire exhibit. [Did you know that the entire exhibit is free standing and not attached to the ceiling?] It was also fun to add in extra surprises along the track. Have you seen that the lights in the exhibit signs are triggered to animate when your CRAFT reaches the top of the ramp and as it descends the return ramp from its flight around the gallery? We hope you enjoy this exhibit as much as we enjoyed creating it.

The CRAFT is a brand-new interactive exhibit featured in The Mississippi Children’s Museum’s WonderBox in Jackson! The CRAFT is the first of its kind in the world and the instructions are in its name: Create Really Amazing Flying Things! At The CRAFT, children can build their own flying devices and send them flying around WonderBox. The CRAFT provides visitors with an opportunity to practice basic engineering and problem-solving processes, all while expressing creativity by creating their own, unique, Really Amazing Flying Thing!
The Institute of Museum and Library Services has recognized the Mississippi Children’s Museum as a recipient of the 2021 National Medal for Museum and Library Service, the nation’s highest honor given to museums and libraries that make significant and exceptional contributions to their communities.

MCM is extremely honored and excited to be recognized as one of the six recipients (three museums and three libraries) in the country to receive the National Medal for Museum and Library Service. We are grateful to receive an honor that all museums and libraries strive for in the work they do daily.

"This prestigious recognition of our efforts to improve outcomes for Mississippi’s children is a strong validation for the innovative efforts of our team and our community," says Susan Garrard, MCM President.

The 2021 National Medal for Museum and Library Service winners represent institutions that provide dynamic programming and services that exceed expected levels of service. Through their community outreach, these institutions bring about change that touches the lives of individuals and helps communities thrive.

“IT is an honor and pleasure to honor these six recipients of the 2021 National Medal of Museum and Library Service,” says IMLS Director Crosby Kemper. “Through their programs, services, and community relationships, these institutions exemplify the ongoing excellence of our nation’s museums and libraries across the country, as well as their extraordinary efforts this past year to serve, heal, and bring us together.”

Please join us on Wednesdays at 3:30 pm in the new WonderBox galleries, in Jackson and Meridian, for a hands-on experiment that will cultivate curiosity in guests of all ages! Wonder Wednesday is MCM’s latest statewide program that focuses on Science, Technology, Engineering, Art, and Mathematics with a fun and educational twist. This program is sponsored by the Institute of Museum and Library Services.

"Meet Dr. Temple Grandin—one of the world’s quirkiest science heroes!" The Girl who Thought in Pictures is a simple yet detailed account of the life of Dr. Temple Grandin, from being diagnosed with autism at a young age, to her difficulties in school, to her amazing connection with animals and how this connection boosted her confidence, education, and career. Young children will be fascinated with the rhyming verse and colorful illustrations. For older children and adults, there is additional content in the back of the book, such as an interview with Dr. Temple Grandin, a timeline of her childhood and career, and a two-page biography. Children and adults alike will find inspiration through Dr. Temple Grandin’s story.

Please join us on Wednesdays at 3:30 pm in the new WonderBox galleries, in Jackson and Meridian, for a hands-on experiment that will cultivate curiosity in guests of all ages! Wonder Wednesday is MCM’s latest statewide program that focuses on Science, Technology, Engineering, Art, and Mathematics with a fun and educational twist. This program is sponsored by the Institute of Museum and Library Services.
SCIENCE: BAKING SODA & VINEGAR EXPERIMENT

Supplies: baking soda, vinegar, cup, candle, matches or lighter
* Ask an adult for help with this activity.

ACTIVITY:
1. Start by making a hypothesis, or a guess, about what will happen when you mix baking soda and vinegar.
2. Mix a little bit of baking soda with a little bit of vinegar. What happens? Why do you think the bubbles form?
   - The bubbles are made of carbon dioxide! This is also known as CO2.
   - This is one of the byproducts of the chemical reaction that happens when we mix baking soda and vinegar.
3. Next, make another hypothesis! When you mixed the baking soda and vinegar, did the carbon dioxide stay in the cup, or did it float away?
4. Ask your grown-up to light the candle. Always be careful with matches, candles, and fire.
5. If the carbon dioxide stayed in the cup, you will be able to carefully pour it over the candle, and the flame will go out. If the candle stays lit, then the carbon dioxide floated away!
6. With your grown-ups help, carefully tip the cup over the candle flame. Don’t tip it so far that the vinegar runs into the flame. You just want the gas to flow over the candle.
7. Did the candle go out? Was your hypothesis correct?

Why does it work? CO2 is heavier than air, so when you created it in the cup by mixing baking soda and vinegar, it stayed at the bottom of the glass. This allowed you to pour it over the candle flame. Fire is fueled by oxygen, and the CO2 displaced the air (containing oxygen) and suffocated the candle flame.

TECHNOLOGY: LEGO CODING

Supplies: LEGOs or other small objects of at least three colors, coding chart
* Scan this QR Code for the coding chart

ACTIVITY:
1. Do you know what coding is?
   - Computers don’t read letters the same way we do. Computers read a code. Coding is how people talk to computers.
   - You encounter code every time you play a video game, use a cell phone, or use a computer.
   - The code that we are using in this activity is a binary code. Binary means that it is made up of two things. In this case, those two things are ones and zeros. In a binary code, every letter of the alphabet has its own code made up of ones and zeros.
2. To do this activity, you need any small objects of at least three colors. We suggest using LEGOs, but you can also use beads, crayons, or even toy cars. You can do this coding activity with almost anything!
3. To begin, designate a color for your ones and a color for your zeros. Choose a third color to represent the spaces between your letters. This is so your letters don’t run together!
4. Choose the word (or words) you would like to spell. Move slowly and check the chart to make sure that you are coding your words correctly! Don’t forget your spaces between letters.
5. Give your grown-up, sibling, or friends your secret message and see if they can use the binary alphabet chart to decode what you wrote!
ENGINEERING: HOME OBSTACLE COURSE

Supplies: Anything you can find in your home! Examples include: towels, blankets, canned foods, paper, pencil

ACTIVITY:
- Designate a room in your house devoted to this obstacle course challenge. If you would like, use your entire house!
- Go through your house and find the different materials that you need. You can use just about anything!
- Allow each family member or friend to design one or two parts of the course.
- Build your obstacle course.
- Each member of your family or each of your friends should go through the course at least once. Be sure to time yourselves to see who is the fastest!
- This is a simple activity that you can change up every day.

EXAMPLES:
- Make circles out of towels/blankets on the floor. Then try to hop through the circles.
- Use canned foods to create zig zags. You have to run through the zig zags.
- Use a blanket to create a tunnel between your couch and coffee table. You have to crawl through the tunnel.
- You can always write exercise challenges on pieces of paper throughout your course. Once you reach the paper, you have to completely the exercise.
  Example: 10 jumping jacks.

ART: WHAT’S IN THE DARK?

Supplies: plain white paper, black construction paper, sandwich bag, pencils, sharpie, scissors, markers

ACTIVITY:
- Start by cutting your black paper to fit inside your baggie.
- Use your markers to draw some sea creatures (or other creatures) on the outside of your baggie.
- Put your black paper inside your baggie. Can you still see your creatures, or did they disappear? Set your baggie aside.
- On your white sheet of paper, draw a flashlight with a beam of light coming from it. Cut this out, including the beam of light.
- Slip your paper flashlight into your baggie between the black paper and the outside of the bag where you drew your creatures.
- Can you see your drawing now? How is this similar to turning on a flashlight in the dark?

MATH: GIANT BOARD GAME

Supplies: sidewalk chalk, dice (optional)

ACTIVITY:
- What’s a fun way to learn math when we don’t feel like sitting still? Turn it into a giant board game, of course!
- Use your sidewalk chalk to draw a game board outside on the sidewalk. Make as many spaces as you want!
- Ask a grownup to write math problems inside of the spaces. Some should be easy, and some should be more challenging.
- Roll the dice to see how many spaces to move. If you don’t have dice, you can toss a rock like in hopscotch.
- Move forward the number of spaces you rolled and see if you can solve the math problem in that space. Ask for some help from your grown-up if you get stuck.
- See who can make it to the end of the board first!
Join us for Journey to the North Pole at MCM in Jackson, Nov. 22-Jan. 2. This one-of-a-kind holiday experience transforms MCM into a magical winter wonderland with twinkling lights, train cars, and a child-sized post office. Glide around the Reindeer Rink in your coziest socks, ride our thrilling 45-foot Snowflake Slide, or write a letter to Santa!

Journey to the North Pole is included with general admission or museum membership. Don't miss out on Jackson's best family holiday tradition!

Journey to the North Pole

November 22 from 5:30-7:30 PM

COME SEE SANTA IN JACKSON!

11/22/21 5:30-7:30 PM
12/4/21 10:00 AM-12:00 PM & 1:30-3:30 PM
12/5/21 2:00-4:00 PM
12/18/21 10:00 AM-12:00 PM & 1:30-3:30 PM
12/23/21 11:00 AM-1:00 PM

JAMMIES AT JOURNEY!

Join in on the fun November 22 from 5:30 - 7:30 PM

GIVE THE GIFT OF IMAGINATION THIS HOLIDAY SEASON!

Visit the MCM Trading Post, in Jackson or Meridian, this holiday season for the most innovative and fun toys in town. Every purchase bought in store and online offers complimentary gift wrapping! We will even deliver your wrapped gifts to your car for easy curbside pickup.

Monday, December 20 at 4:00 pm is the deadline for all online shipping orders for the MCM Trading Post until after the holiday! Visit mcmtradingpost.com to view our unique toy selection.

Gift certificates make for the perfect holiday gift that can be used at any time and for any purchase made within the museum. You can purchase a gift certificate online at mchildrensmuseum.org, at the MCM Trading Post, or by calling 601.981.5469 (Jackson), 601.312.0278 (Meridian) or emailing membersonly@mcm.ms.

Please note MCM will need the basic information from the purchaser about the recipient to complete this process. Gift certificates can be mailed with a personalized note at the purchaser’s request.
**MISSISSIPPI CHILDREN’S MUSEUM FALL EDITION 2021 • PLAYBOOK**

**NEON NIGHT**

Guests danced the night away under neon lights at MCM Partners signature summer event, Neon Night. Thank you to our Neon Night Committee who helped make this event a great success. And a special thank you to our presenting sponsor, TrustCare Kids. In combined efforts from our generous sponsors, event hosts, silent auction, and guests, this year’s Neon Night fundraiser contributed over $70,000 to the Mississippi Children’s Museum!

**DISCOVERY NIGHT: THE WONDERS OF SCIENCE!**

Discovery Night is the Mississippi Children’s Museum’s signature family fundraising event hosted by MCM Partners. This special evening celebrates the fascinating world of science, technology, engineering, and math (STEM). MCM is committed to developing children’s critical thinking and communication skills, creativity and collaborative, and real-world problem solving by engaging them with innovative science and math-based exhibits, programs, and special events. Developing these skills is vital to the creation of lifelong learners, and promoting positive futures for Mississippi’s children. The proceeds from this event help support MCM’s STEAM initiatives, as well as provide critical operating revenue that will enable the museum to remain accessible to all children.

**MCM-MERIDIAN MIDNIGHT AT THE MUSEUM**

Join us for MCM-Meridian Partners’ signature fundraiser event – Midnight at the Museum: Magical Masquerade on December 31, 2021!

Guests (21+) will dress in their best and join the revelry with masks fit for kings and queens in Mississippi’s very own Queen City. Adding to the allure of the evening, special activities and treats will be announced at the top of each hour as the clock counts down! From mystifying music to gracious food and libations, Midnight at the Museum: Magical Masquerade will be the biggest New Year’s Eve event in East Mississippi! Let’s raise a glass and cheers to a new year of possibilities at the Mississippi Children’s Museum-Meridian!

**IGNITE THE NIGHT: NEW YORK STATE OF MIND**

On February 12, 2022, MCM Partners invites grown-ups to take over the museum as Ignite the Night: New York State of Mind welcomes the Museum’s biggest little kids to come take a bite out of the Big Apple in the heart of Jackson! Come dressed in your most Cosmopolitan of New York City style, enjoy entertainment by street performers and musicians and savor a variety of NYC’s finest culinary offerings. Be ready to bid on swanky silent auction items while strolling down Fifth Avenue, and be sure to peruse the beautiful art in our SoHo Artist’s Alley while you get a taste of New York City’s most exciting nightlife. After all, nothing beats a night out in NYC!
Starting at birth, babies learn through interacting with others and exploring objects. Through these activities, they figure out there are predictable responses to actions, for example, “when I reach for Daddy, he picks me up.” This is a concept known as cause and effect, which is a critical component of problem-solving.

Babies begin categorizing things as soon as 3-4 months. By one to two years, their organizing skills have improved, and they understand more about how things are connected. Organization is a crucial skill in solving problems and learning math concepts.

Between 2-3 years of age, pretend play becomes a big focus for many children. Any time a child pretends that one item represents something else, they are displaying an understanding of symbols, which is important for the development of math, reading, writing, and science skills.

By 3-5 years of age, children begin to play more collaboratively. They are more capable of controlling their impulses, practicing cognitive flexibility, and thinking of things in different ways. How does this help problem solving? It promotes focus and self-control.

**RESEARCHER SPOTLIGHT: DR. HEATHER HANNA**

Researcher Dr. Heather Hanna works daily to improve health outcomes for Mississippi’s children at the Social Science Research Center (SSRC) at Mississippi State University. As a child, she was always sensitive to the emotional and social well-being of her family members and friends—and later this bloomed into an interest in how individuals interact with, and are affected by, their families, communities, and the larger society. This led to her obtaining degrees in psychology, sociology, and public policy and administration. Over 18 years ago, she started as a Graduate Research Assistant at the SSRC and is now an Assistant Research Professor. She is Co-Principal Investigator for the Child Health Development Project: Mississippi Thrive!, a joint effort between The University of Mississippi Medical Center and the SSRC. Her work focuses on expanding education and policy on early childhood development.

**PHYSICIAN SPOTLIGHT: DR. BARBARA SAUNDERS**

Dr. Barbara Saunders, developmental-behavioral pediatrician, told her parents she wanted to be a doctor when she was just five years old. She never changed her mind and set goals to become a pediatrician. She received a B.S. in biology at the University of Mobile and then went on to complete medical school at Oklahoma State University. She had a passion for early childhood development and completed her fellowship in developmental-behavioral pediatrics at the University of Arkansas for Medical Sciences, where she also received a Graduate Certificate in Clinical and Translational Science. She is currently the Chief of the Division of Child Development, Medical Director of the Center for Advancement of Youth, and Executive Director of the Center of Excellence in Developmental Outcomes Research at the University of Mississippi Medical Center. She works with children, families, and healthcare providers to improve developmental health outcomes for Mississippi’s children.
MISSISSIPPI THRIVE!

KICK AND PLAY (BIRTH TO 6 MONTHS)
Does your child like to kick their legs during tummy-time? Putting things like crumpled paper or a rolled up towel behind their legs can make it even more interesting. Talk with your baby about how it might feel or sound when they kick. What else could you use for kicking?

BRAINY BACKGROUND
Your child learns about the world through their senses. It is important to share words for how things feel and sound as well as the names of things. You’re helping them learn to connect language with the world around them. Giving them something to kick also helps them learn to link their actions with an outcome.

LAUNDRY SORT (18 MONTHS TO 2 YEARS)
During laundry time, pull out a single sock and see if your child can find a match for it in the laundry basket. Once they get it, let them pull out another sock and you find the match. Talk about the clues you use to find the match.

BRAINY BACKGROUND
Your child is figuring out what’s the same and what’s different. This is an important early math skill that they’ll use to organize their thinking and solve math problems later in school.

BE A FIXER (2-3 YEARS)
Pretend to fix things with your child. With a plastic spoon, pretend to fix a hinge on a kitchen cabinet. “I’m fixing this broken hinge on the cabinet door. Now it’s your turn.” After their turn, hold out your hand saying, ‘My turn!’ Keep taking turns, smiling while you work.

BRAINY BACKGROUND
Pretending is an important way that children make sense of their world. When children pretend, they learn that one thing (a plastic spoon) can stand for something else (a tool to fix a broken hinge). That is the basis of understanding symbols, which is important to literacy and math.

NATURE PATTERNS (4-5 YEARS)
Have your child collect items like rocks and leaves. Arrange them in a pattern such as one rock, two leaves, one rock, two leaves. Then mix them up and ask your child to recreate your pattern. Can they remember the order? Have them take a turn making a simple pattern for you to remember.

BRAINY BACKGROUND
Finding and repeating patterns builds focus and memory. It is a great way to make connections and solve problems. These are all important skills for learning. Playing with patterns also builds math skills like comparing sizes, numbers, and shapes.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $14 million with 0 percent financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government. For more information, please visit HRSA.gov
MCM - MERIDIAN DONORS

MCM-Meridian is excited to announce that its Inspiring Minds. Creating Community. Innovating Futures. Capital Campaign is fully funded thanks to over 700 visionaries faithfully fulfilling their pledges. These champions are honored on our permanent founding donor signage. MCM-Meridian would like to recognize a few additional champions that helped us get to the finish line in the last months before opening:

Now that MCM-Meridian is operational, we need the continued support of our community through annual donations to our Inspire a Child Annual Fund. Donors to this fund help bridge the gap between the museum’s $10 general admission and $5 field trip rate with the actual $23 cost of the experience. The following donors have given generously to continue championing our mission to inspire a lifelong joy of learning in all children:

**MARCH 28, 2021 - MAY 31, 2021**

**$2,500 - $4,999**
- Community Foundation of East Mississippi
- Specialty Roll
- The Riley Foundation

**$1,000 - $2,499**
- Susan and Bob Coffin
- Dianne and Larry Johnson
- Vicky McDonnell
- Carissa and Kyle Murray
- Janice and Linton Newlin
- Jenn and John Northam
- Amanda and Ken Pace
- Rhonda and Ed Poole
- Hollie and Zachary Swindall
- Cheryl and Gerald Waltman
- The Insurance Center

**$500 - $999**
- Linda and Tim Allred
- Madison and Caleb Dunlap
- Caroline and John Everett
- Clair and Brad Huff
- Louie Lassiter
- Shelley and Evan McDonald
- Melanie and Manny Mitchell
- Christina and Josh Waters
- Cater’s Market *
- World of Flowers *

**$250 - $499**
- Jennifer Cobb
- Dee Dee and Anthony Fouts
- Heather and Nathan Myatt
- Rita and Steven Reid
- Junior Auxiliary of Meridian
- Magnolia Beverage Company *
- Mitchell Distributing *
- Over the Pop Balloon Decor *

**$1 - $249**
- Norma and William Atkins
- Mandy Bateman
- Montoya Baylis
- Jane Beasley
- Melanie and Jameson Burrow
- Tara and Danny Daughtry
- Sheryl and Jay Davidson
- Linda and Marty Davidson
- Gina and Brandon Dunn
- Mary Clare and Daniel Evans
- Angela and David Majeure
- Mary Lindsey and Chris Newlin
- John Pearson
- Angie and Randy Pope
- Karen and Sonny Rush
- Mark Scarborough
- Dianne and George Sellers
- Betty and Donna Smith
- Glenda and George Thomas
- Go Green Meridian *
- Out of Earth Worm Farm, LLC *

**CAPITAL CAMPAIGN DONORS**

**$10,000 - $24,999**
- Susie and Scott Morgan
- Faith Morgan Whitehead

**$1,000 - $9,999**
- Abby and Jonathan Adair
- Torie and John Boling
- Brooke and Michael Chamblee
- Wesley Morgan
- Addy and Ryan Tenpenny
- Ashley and Nathan Weathers

**$1 - $999**
- Meredith Crew
- Frances and Justin Craft
- Tara and Danny Daughtry
- Tabitha and Jason Dubose, Sr.
- Anna and Brennan Hull
- Mary Martha and Brian Hensen
- Shacey and Scott Jarosen
- Carol and Lee Moxley
- Rosie and Dave Schuurman

MCM-Meridian relies on generous gifts like these to provide unparalleled experiences to thousands of children a year. Learn how you can help us encourage children to discover and achieve their potential by visiting mcmmeridian.org

**THE LEFLEUR’S BLUFF PLAYGROUND OPENING FALL 2021**

The new 21st century playground will be located on the shared campus of the Mississippi Children’s Museum and the MDWFP’s Mississippi Museum of Natural Science.

For more information visit:
- QR Code: https://mschildrensmuseum.org/
- mcmmeridian.org
- museum-updates/ms-project-playground/
MCM & MCM - MERIDIAN FALL CALENDAR

MCM IN JACKSON FALL CALENDAR

- **SEPT**
  - 16: Science After 6
  - 17: MSF Field Trip Friday
  - 18: Mississippi Science Fest
  - 16: Guest Speaker: Temple Grandin

- **OCT**
  - 2: Discovery Night
  - 29: Park After Dark

- **NOV**
  - 22: Journey to the North Pole: Open
  - 23: Fall Fun Day Camp

- **DEC**
  - 22-23: Winter Camp
  - 27: Noon Year’s Eve
  - 31: Science Saturday

- **JAN**
  - 15: Storytelling Festival

MCM - MERIDIAN’S FALL CALENDAR

- **SEPT**
  - 17: Field Trip Friday
  - 18: Science Saturday

- **OCT**
  - 23: Boo!seum

- **NOV**
  - 21: Winter Camp

- **DEC**
  - 21: Winter Camp
  - 31: Noon Year’s Eve
  - 31: Midnight at the Museum: Adults Only Fundraiser

HOLIDAY CLOSING HOURS FOR BOTH MUSEUMS INCLUDE:
- November 25
- December 24
- December 25
- January 1

COME SEE SANTA IN JACKSON!
- November 25
- December 24
- December 25
- January 1

VISIT SANTA IN MERIDIAN!
VISIT MCMMERIDIAN.ORG FOR DATES

DATES AND EVENTS ARE SUBJECT TO CHANGE. VISIT MSCHILDRENSMUSEUM.ORG AND MCMMERIDIAN.ORG FOR AN UP-TO-DATE SCHEDULE.

MAGICK MONDAYS FOR BOTH MUSEUMS INCLUDE:
- November 22
- December 27
- January 17

ADDITIONAL MAGIC MONDAYS AT MCM - MERIDIAN:
- October 11 & December 20

**DID YOU KNOW...**

You can be a member to both MCM and MCM-Meridian by adding on a dual-membership for only $50! Visit www.mschildrensmuseum.org/join-donate/membership to learn more, or give us a call at 601.981.5469 (Jackson) or 601.512.0278 (Meridian).

MCM is a signature project of the Junior League of Jackson. MCM-Meridian’s signature sponsors are The Riley Foundation and The Phil Hardin Foundation. This project is partially funded through a grant by Visit Jackson.