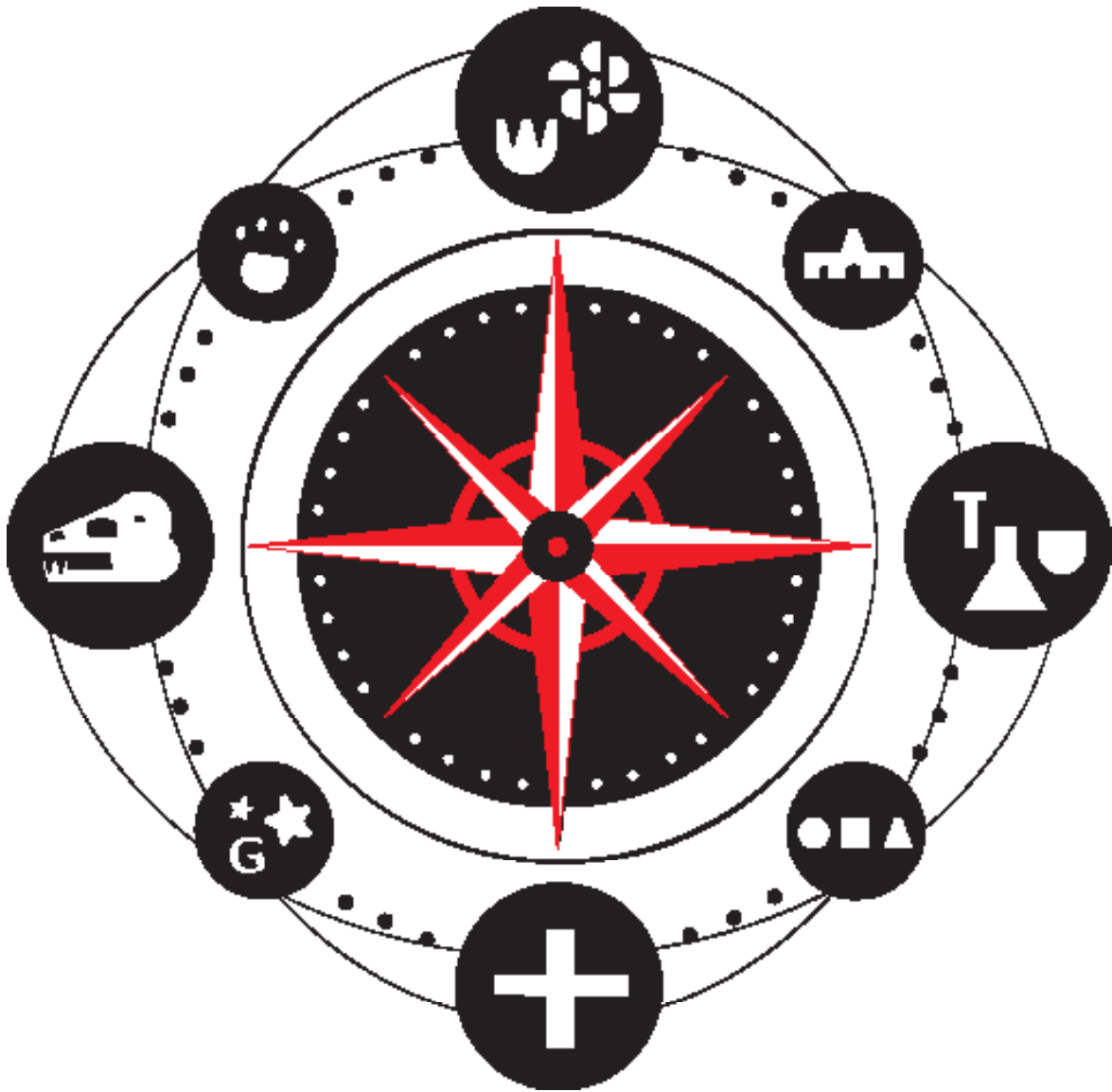


**April 8, 9, 10**



# Science Expeditions

**Exhibit Guide**

Version 3

# Friday, April 8th



## **GEOGRAPHY & WGNHS SCIENCE EXPEDITION OPEN HOUSE | SCIENCE HALL | 4:00 - 6:00 PM**

*UW-Madison Geography & the WI Geological and Natural History Survey*

Join the UW-Madison Geography Department in partnership with the WI Geological & Natural History Survey (WGNHS) for open house activities in Science Hall. Check out the map exhibit in the Robinson Map Library; see map examples and join in on mapping activities with the UW Cartography Lab; view and learn about historic aerial photography with staff from the State Cartographer's Office; see examples from the longstanding History of Cartography Project; and learn about modern Geologic mapping techniques with staff from the WGNHS



## **GIVEN TO REMEMBER: THE HOLOCENE EXTINCTION IN PRINT (LIBRARY EXHIBIT) | MEMORIAL LIBRARY FLOOR 9R | 9:00 AM - 5:00 PM**

*UW-Madison Libraries*

"Given to Remember: The Holocene Extinction in Print" is an exhibition featuring materials from the UW-Madison Libraries, including UW-Madison's Special Collections, the Kohler Art Library, Memorial Library, the Leith Library of Geology and Geophysics, and Steenbock Library of Agricultural & Life Sciences, Engineering, Veterinary Medicine. Highlights include a variety of printed works by geologists, zoologists, and other naturalists; a display of fine press and artist's books that engage with concepts such as biodiversity and environmental degradation; and a selection of artistic and literary treatments of extinction and extinct species of animals and plants.



## **WISCONSIN ALUMNI ASSOCIATION OPEN HOUSE & ALUMNI PARK TOURS | WISCONSIN ALUMNI ASSOCIATION WELCOME CENTER, ONE ALUMNI PLACE AND ALUMNI PARK | 1:00 - 4:00 PM**

*Wisconsin Alumni Association*

Visit the Wisconsin Alumni Association Welcome Center, One Alumni Place on Friday, April 8 between 1-4pm for science fun for all ages! Enjoy Science focused tours of Alumni Park, a Science Scavenger Hunt, refreshments and more.



## **THE MENDOTA DUGOUT CANOE: DISCOVERY, PRESERVATION, AND RESEARCH | WISCONSIN HISTORICAL SOCIETY AUDITORIUM | 7:00 PM**

*State Historic Preservation Office, Wisconsin Historical Society*

The four archaeology team members will give an illustrated discussion on how the canoe was discovered and recovered. They will also describe the three-year preservation project and ongoing research.



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## **WASHBURN OBSERVATORY OPEN HOUSE | WASHBURN OBSERVATORY | 8:00 AM - 10:00 PM**

*UW Astronomy Department*

Tour the dome of historic Washburn Observatory and join us for observing through the telescope (weather permitting). Note: Enter through the south door (that faces away from the lake) and go up the stairs to the right. The telescope is not handicap accessible and is only reachable by climbing a flight of stairs.



## **OPEN HOUSE AT THE FLUID MECHANICS IN ENVIRONMENTAL PROCESSES LAB | WATER SCIENCE AND ENGINEERING BUILDING | 2:00 - 5:00 PM**

*Civil and Environmental Engineering*

The Fluid Mechanics in Environmental Processes Lab in the Water Science and Engineering building on Lake Mendota will be a Destination for Exploration between 2-5 pm on Friday April 8. You will be able to see our wave flume in action and learn about the different research going on in the group.



## **SUSPENDED LANDSCAPES: THREAD DRAWINGS BY AMANDA MCCAVOUR | CHAZEN MUSEUM | 10:00 AM - 7:00 PM**

*Chazen Museum of Art*

Amanda McCavour's thread drawings will fill the Chazen Museum's Paige Court, depicting Wisconsin flora on a monumental scale.



## **INTERCAMBIOS: ART, STORIES, & COMUNIDAD | RUTH DAVIS DESIGN GALLERY | 10:00 AM - 4:00 PM**

*Chazen Museum of Art*

Intercambios: Art, Stories, & Comunidad presents collaborative works from artists in Madison, Wisconsin, and Oaxaca, Mexico. Featuring painting, vibrant textiles, photography, printmaking, music, and video, the artists visually explore intersections of cultures, disciplines, concepts of art, belief systems, and community. By examining these intersections, Intercambios allows for conversation about what it means to cross worlds; life and death, art and craft, and the borders between countries, and languages. The exhibition provides an essential platform for these artists to examine what they share and celebrates the diversity of contexts and perspectives that each provides.



## **GARDEN OPEN HOUSE | ALLEN CENTENNIAL GARDEN | 7:00 AM - 7:00 PM**

*Allen Centennial Garden*

Allen Centennial Garden is open daily from dawn to dusk and admission is free.



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## **ANT AND FUNGI SYMBIOSIS IN THE MICROBE PLACE AT MSB | MICROBI-AL SCIENCES BUILDING | 1:00 - 6:00 PM**

*The Microbiology Club*

The Microbe Place in the Microbial Sciences Building hosts a display of leaf cutter ants that live along with fungi that break down cellulose. Come watch the ants at work and learn about the ways that these organisms live together! While you're at it, enjoy other information and activities regarding Microbiology with students who are currently studying it. Note: The room is inside to the left of the main doors on the corner of Linden and Babcock.



## **THE PHYSICS EXPERIENCE | VIRTUAL | 5:30 - 6:30 PM**

*The Physics Experience*

Physics is the study of how things move, how they push and pull on each other, and how they exchange energy. The Physics Experience show is a fast-paced, engaging, and educational physics program, filled with demonstrations that help people better understand the physics in the world around them, while having fun at the same time! Please visit <https://www.youtube.com/watch?v=D2Bb1WcKyyY> to watch the event live.



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## **THE WONDERS OF PHYSICS | CHAMBERLIN HALL | 1:00 - 4:00 PM**

*Department of Physics*

The Wonders of Physics is a fast-paced, engaging, and educational physics program, filled with demonstrations that help people better understand the physics in the world around them, while having fun at the same time! Note: Shows are ticketed and walk-ins cannot be guaranteed.



## **THE PHYSICS FAIR | CHAMBERLIN HALL | 11:00 AM - 4:00 PM**

*Department of Physics*

Presented alongside the Wonders of Physics annual shows, the Physics Fair will have laboratory tours, hands-on demonstrations, activities for kids and families, and informal conversations with scientists.



## **MEDICAL PHYSICS: PUTTING THE 'RAD' IN RADIATION! | CHAMBERLIN HALL (PHYSICS FAIR) | 11:00 AM - 4:00 PM**

*UW Medical Physics*

Our table will have multiple activities to share that demonstrate major topics in medical physics including radiation safety, radiation therapy, and medical imaging. We will have a Geiger-muller counter and radioactive fiestaware for visitors to explore. We will also have a portable ultrasound system and gelatin brain. Finally, we will bring a radiation therapy treatment planning simulation activity. Visitors will be encouraged to engage in any activities that interest them!



## **KSEA SCIENCE BOOTH | CHAMBERLIN HALL | 11:00 AM - 4:00 PM**

*Korean-American Scientists and Engineers Association (KSEA) Wisconsin Chapter*

We are going to demonstrate a series of simple yet exciting science experiments for kids to interact and enjoy.

1. Gaussian Rifle with LED circuitry
2. Robot path tracker
3. Dry Marker Experiment
4. DIY Lava Lamp



## **GALTON BOARD CENTRAL LIMIT THEOREM SIMULATION | CHAMBERLIN HALL (PHYSICS FAIR) | 11:00 AM - 4:00 PM**

*Department of Statistics*

We will allow attendees to drop little balls down a Galton board (a board with rows of pegs). According to statistical theory (the Central Limit Theorem), these balls will accumulate at the bottom in the shape of a bell curve (the normal distribution). This should allow attendees to see how one of the most important probability distribution arises in the real world and hopefully get them excited about probability and statistics.



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## **BACTERIA AND ME | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Kohler Fellowship*

What color are bacteria? You get to decide and color yourself with a coloring book all about bacteria and microbiology! We will have a full coloring station with pages from this brand-new coloring book.



## **EXPERIENCE HISTORIC ELECTRICAL DISCOVERIES | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Wisconsin Science Museum*

Visitors will have hands-on experience with Alessandro Volta's battery, Hans Christian Oersted's discovery that electric current produces magnetism, William Sturgeon's electromagnet, Michael Faraday's discovery that a moving magnet produces electricity and simple electric generator operation. Everyone will also experience the latest modern means of lighting, the light emitting diode (LED).



## **EXPLORE INSECT DIVERSITY | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Insect Ambassadors*

Learn about the diversity of insect life in Wisconsin and beyond with pinned specimens, microscope stations, and live Madagascar hissing cockroaches!



## **DISAPPEARING ORBEEZ | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Biocore Outreach Ambassadors*

Magicians aren't the only people that can make stuff disappear! Scientists can make objects disappear without physically hiding them by using the index of refraction. The index of refraction describes how the velocity of light changes as it travels from one medium (e.g., air) through a second medium (such as oil) and how much light is "bent" as it emerges from the first medium and travels through the second medium. The index of refraction of vegetable oil and of glass are very similar, so when you immerse a glass object (say, a glass rod or test tube) in a beaker filled with oil, you can make the glass object "disappear". This is because the light travels through the oil and glass object in a nearly identical way. Your eyes have to look very closely to find the immersed glass object. Using these optical techniques, the kids can have a more hands-on (and less messy!) experience by using water beads, commonly known as Orbeez! The Orbeez water beads are made using a water-absorbing polymer. The polymer has the same index of refraction as water when they've soaked for a couple of hours or a day, and when they are completely covered in water light travels through the polymer and water in a very similar way. Therefore, when you bury hydrated water beads in water, it looks like there's only a bowl filled with water!



## **LEARNING TO USE THE FORCE | DISCOVERY BUILDING | 10:00 AM - 2:00 PM**

*Computer and Electrical Engineering*

Youth will create a simple electromagnet and create a functioning circuit. They will explore how changing the current and construction of the electromagnet impacts its strength in picking up paperclips.



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## **STEM CELL LEARNING LAB | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Student Society for Stem Cell Research*

This is a hands-on activity that walks through a simulation of the steps taken to isolate the first embryonic stem cell line. We hope this station provides a fun interactive environment for children as well as an in-depth discussion of the science, ethics, and public policy of stem cell research.



## **FLOOD TANK | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Water Resources Engineering*

We will demonstrate hydrology principles and flood processes with an interactive, stand-alone flood tank. The tank includes a rainmaker, various surfaces to compare runoff processes (wetland vs parking lot vs retention basin), and a river with houses located on the banks. Visitors will participate by making it rain, exploring the effects of various surfaces, building barriers to protect homes, etc. Key concepts include hydrology, development impacts, and downstream impacts.



## **ARTIFICIAL INTELLIGENCE FOR ANIMAL FARMING | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Animal and Dairy Sciences*

In our exploration station we will demonstrate the use of computer vision, as an example of AI system, to monitor dairy cow behavior. The system will track in real-time animal posture such as standing, lying down, eating and drinking.



## **MAGIC MATHEMATICAL MOVEMENT | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Educational Psychology-Learning Sciences*

The MAGIC Lab at UW-Madison is developing an online videogame that uses emulated 3D motion capture that allows students to use their bodies to reason about geometric objects and relationships.



## **EXPLORING MEDICINE | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Wisconsin Pre-Medical Society*

We will have a fun activity that will allow participants to explore medicine with some UW-Madison pre-med students. This will likely include a crafting activity for children to bring home and various fun facts!



## **WHEN YOU SAY WISCRANSIN | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Department of Horticulture*

Did you know Wisconsin is the largest producer of cranberries in the United States and the world? Using genomic science, we aim to keep Wisconsin #1 and make this amazing fruit even better for future generations. Have you ever seen DNA? At our station you can extract the DNA from cranberries and even take it home with you!



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## **WHERE THE WILD THINGS GROW | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*USDA-ARA / Department of Horticulture*

Can you imagine a time when an ear of corn could only feed a field mouse, or when Italians had never heard of tomato sauce? Can you picture Szechwan without hot peppers, Belgium without chocolate, Germany without beer, or Georgia without peaches? It wasn't long ago that the culinary world was very different from what it is today. Most of the fruits and vegetables that we enjoy were unknown or didn't exist! For centuries people around the world have used genetics to develop crops from wild plants, often making dramatic changes to taste, texture and appearance in the process. Find out where the wild ancestors of our fruits and vegetables are found, and discover how their domesticated descendants traveled throughout the globe to enrich our lives. Explore with us the fascinating origin of the food you eat and how scientific advancements ensure a never-ending supply of healthy fruits and vegetables for your dinner table.



## **CRAZY CANDY SCIENCE! | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*UW-Madison Food Science Club*

For our Exploration Station, representatives of the UW Madison Food Science Club will be presenting on the science behind cotton candy and rock candy. Our station will have rock candy in various stages of growth with explanations on how the crystals form; we will also have cotton candy that will be dried out or dipped in water. Individually-wrapped rock candies will be passed out to guests who visit our booth!



## **WHAT CAN WE FIND IN THE SOIL | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Department of Soil Science*

Our Exploration Station will lead learners on an adventure to discover what lives in the soil. We will have two microscopes with fresh soil that includes live soil critters like mites, worms and other fauna for learners to observe on built-in monitors. We will also have petri plates with growth medium that we will prepare with growing cultures of microorganisms like bacteria and fungi that can be found in soil. Lastly, we will have a "Make Your Own Microbe" station where learners will have the chance to design their own microbe with multicolored construction paper, scissors, crayons, googly eyes, pipe cleaners and other arts and crafts supplies. As a resource we will also have a printed reference sheet with more information about microbial morphology to help with the make your own microbe project as well as larger pictures with more information about different types of soil fauna.



## **SHOEBOX GROUNDWATER MODEL | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Wisconsin Geological and Natural History Survey*

This activity helps participants learn how water enters (infiltrates) an aquifer and how water moves (percolates) through an aquifer. Participants should also understand through this activity that the level of groundwater (the water table) is closely tied to the water level of nearby rivers, streams, and lakes.



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## **FIND OUT ABOUT FLUORESCENCE | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*MMSD Black Excellence Life Readiness Virtual Cooking Class + Meal Kit Program*

Can you see the invisible colors? How does fluorescence work? Try our hands on exploration testing liquids and food items we consume and how they may glow in the dark.



## **CAN YOU BELIEVE YOUR EYES? | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*McPherson Eye Research Institute*

This exploration station employs virtual and physical demonstrations of optical, physiological and cognitive illusions to help visitors learn about visual perception and the brain.



## **BE WISE AND SHADE YOUR EYES | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*McPherson Eye Research Institute*

This exploration station uses uv-sensitive beads and uv-blocking materials to educate visitors about damaging UV light and promote sunglass use to limit UV light exposure to the eye.



## **DIFFERENT WAYS OF SEEING | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*McPherson Eye Research Institute*

This exploration station utilizes specially prepared goggles that participants wear to simulate visual impairments and experience some of the difficulties faced by the visually impaired on a daily basis. Participants try reading, writing, telling time, looking at eye chart, catching a ball while wearing the simulation goggles, and try reading in Braille.



## **EXTREME SOUTH POLE SCIENCE | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Wisconsin IceCube Particle Astrophysics Center*

Come experience the world of the neutrino, often called the weirdest particle in nature. Learn about the unique properties of the so-called ghost particle, which can pass through the Earth undeflected and exist in three identities at the same time. Learn how the IceCube Neutrino Observatory detects these particles and what it's like to work and live in the extreme environment at the South Pole in Antarctica.



## **BUILDING BRIDGES WITH EWB | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Engineers Without Borders*

Students will use a variety of different materials (spaghetti, marshmallows, tape, glue, cardboard, paper, etc) to build bridges across a pretend river.



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## **SEPARATING COLORS IN MARKERS USING SCIENCE | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Graduate Women In Science*

We will utilize liquid chromatography to show the different colors in markers to make then the color you see when you draw with them. Using filter paper, water in a cup, and washable markers, we can separate different colors based on how they travel up the paper with the water.



## **TO BEE OR NOT TO BEE | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*USDA-ARS*

We will have activities that will help answer the following questions: What is a bee? How do you distinguish bees from other insects? What role do bees play in food production? in plant reproduction? Which bees are most important in agriculture? Why? What would a world without bees look like? How would it affect the food you eat? What is a social bee? What is a solitary bee? What is the life history of a bee? How can you help preserve the bees?



## **FIND OUT ABOUT FLUORESCENCE | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*MMSD Black Excellence Life Readiness Virtual Cooking Class + Meal Kit Program*

Can you see the invisible colors? How does fluorescence work? Try our hands on exploration testing liquids and food items we consume and how they may glow in the dark.



## **LEARN HOW TO READ NUTRITION FACTS! CAN YOU FIGURE OUT HOW MUCH SUGAR IS IN EACH FOOD? | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Professional Association of Latinx Students for Medical School Access (PALMA)*

Before completing the activity we will explain the importance of reading nutrition labels to follow a balanced diet. We will have a few food products with nutrition fact labels and bags with sugar that correspond to the amount of sugar in each individual food. Participants will use a scale to figure out which sugar bag belongs to which food product which will help them visualize nutrition fact labels. Following the activity we will talk about the difference between moderation vs restriction, and inform of different eating disorders to prevent an unhealthy relationship with nutrition facts. ing liquids and food items we consume and how they may glow in the dark.



## **BUILDING A PENNY BATTERY | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Chemistry Department*

Make a battery using only pennies, cardboard, and vinegar. Find out how many pennies it takes to power different color LEDs!



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## **LEGO ROBOTICS | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*BadgerBOTS Robotics Corp*

Use your engineering skills to modify a LEGO Robot to knock over or pick up a ball.



## **HOW OUR SENSES HELP US MOVE | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Speech Motor Neuroscience Group*

At our Exploration Station, you will see how the brain uses your senses to learn to move: vision to move your arms (to play cornhole), and hearing to move your mouth and tongue (to speak)! See how quickly you can learn to play cornhole while wearing prism glasses. The prisms introduce a visual error that your brain can learn to correct for -- but what happens when you take off the glasses? In another activity, you can try to recreate vowel sounds by playing sound through tubes with different shapes. You'll have to listen while you adjust the shape of the tube to learn how to get the sound you want.



## **SPACE-VENTURES WITH STELLA AND RILEY | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Department of Astronomy*

Learn more about current research in astronomy with a new comic book developed at the UW-Madison Astronomy Dept.



## **THE PUZZLES OF THE BRAIN | DISCOVERY BUILDING | 10:00 AM - 12:00 PM**

*Department of Educational Psychology*

For our exploration station, we intent to have various puzzle activities relating to the brain. The various puzzles we intend to bring are:

1. Brain Helmets --> allows kids to color both hemispheres of the brain, cut them out, tape them together, and create their own brain hat to take with them. The hat also labels the various lobes/hemispheres/important structures of the brain.
2. The Stroop Test --> we are going to print out the stroop test to play with the families. Will provide both laughs and education on how the brain works.
3. Brain Memory --> we will have a memory game to play with various fun facts, brain structures, and more to play with families. This will also include an educational component on memory to teach the families as they play the game.



## **THROW LIKE A PRO! | FRONT LAWN OF MEDICAL SCIENCES CENTER | 10:00 AM - 12:00 PM**

*Department of Kinesiology*

UW Madison physical education students will guide participants to improve the velocity of their overhand throws by improving their form. Participants will throw into a net and PE students will record their throwing speed with a radar gun. PE students will give feedback and participants will



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## **4RS OF RENEWABILITY | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

An exploration of the different approaches we could do with our waste through recycling, reusing, reducing and refusing



## **WHY ARE CHIMP HANDS SO STRONG | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Biomedical Engineering Graduate Student Association*

Chimps and humans have similar sized hands, but a chimp's handshake can be over two times stronger than a human's! Join UW-Madison's biomedical engineering graduate students to explore why a human hand is no match for a chimp hand.



## **AQUAPONICS AS A SUSTAINABLE FOOD SOURCE | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Department of Civil and Environmental Engineering - Hicks Research Group*

Learn about aquaponics and sustainability. We will bring a small aquaponics set up. And the kids will participate in a fishing activity (with pretend fish) to learn about carbon intensity.



## **WISCONSIN ENERGY INSTITUTE BUILDING TOURS | WISCONSIN ENERGY INSTITUTE | 10:30 - 11:30 AM**

*Wisconsin Energy Institute*

Step behind the scenes and into the state-of-the-art laboratories where UW Energy Experts make their discoveries during a tour of the LEED-Certified Wisconsin Energy Institute! Learn about the current research projects and how we're working to advance the transition to new, clean energy systems for all. Meet by the elevators at 10:30 or 11:30.



## **PIN THE ROOT ON THE PLANT | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

Play a game to match root depth with common biofuel crops, look at roots through a microscope, and measure your height against a 14' life sized big bluestem poster.



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## **POLLINATORS EXPLORATION | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

Learn about pollinator life cycles and why they matter for bioenergy crops!



## **WHICH MICROBE ARE YOU? | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

Learn about the many microbes that live on and around plants. Find out which one you're most like!



## **PEDAL POWER | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

Hop on a stationary bike to experience how much "human power" it requires to produce electricity for a variety of different loads including incandescent bulbs, LED bulbs, CFL bulbs, and fans.



## **FERMENTATION IN A BAG | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

Which feedstock does yeast like best? Conduct an experiment to find out.



## **ALBEDO EXPLORATION | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

Make a hypothesis and test it using laser temperature sensors in order to discover the connection between land use, temperature, and albedo. Learn about GLBRC albedo research.



## **PLANT VS. PETROLEUM | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

Play a memory game modeled after the card game "Concentration" to match everyday items normally made from petroleum with the plant they're made from.



## **GRASS TO GAS | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

How does a poplar tree become a biofuel and who is involved along the way?



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## **THE INVISIBLE UNDERGROUND | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

What is the rhizosphere, and why is it the secret to every plant's success? Join us to find out in this interactive modeling activity! Together we'll learn about the organisms living in the rhizosphere and create a visual representation of them in their underground habitat. Then we'll discuss why these organisms are so important to us, to scientists, and to the world. Come unearth the mysteries of the soil with help from the Wisconsin Energy Institute!



## **ANIMAL AERODYNAMICS | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

Learn about the different ways scientists take inspiration from nature through the process of biomimicry and match different plants/animals to human innovations! Then, examine what it really means to be aerodynamic, both for creatures in the wild and for the engineers designing wind turbines, and design a turbine blade inspired by an aerodynamic animal.



## **WIND TURBINE DESIGN CHALLENGE | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

build and test wind turbine blades to see who can lift the most washers



## **CLIMATE AT YOUR FINGERTIPS: AN INTERACTIVE SOLUTIONS WORKSHOP | WISCONSIN ENERGY INSTITUTE | 10:00 AM - 12:00 PM**

*Wisconsin Energy Institute*

How can we collectively limit global warming to well below 2 degrees Celsius? In this interactive workshop, participants will identify climate strategies and test their impacts on global temperature using a cutting-edge computer simulation. Join us to create your own climate future using evidence-based modeling and engaging conversations. Meet in room 1115 at 11:30.



## **PHYSICS OF CLIMATE CHANGE | VIRTUAL | 2:30 - 3:00 PM**

*Physics Department*

Learn about how physics concepts can help us to understand the science of climate change and strategies for reducing greenhouse gases. If you would like to do the demonstration at home, please bring a flashlight or desk lamp, and a piece of white paper and a brown paper bag to the presentation.



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## **OPEN HOUSE AND TOUR OF THE WISCONSIN STATE HERBARIUM | BIRGE HALL LOBBY | 10:00 AM - 2:00 PM**

*Wisconsin State Herbarium, Department of Botany*

Visitors will get a behind-the-scenes tour of the WI State Herbarium, which preserves >1.3 million scientific plant, fungi, and lichen specimens in historic Birge Hall.



## **LAKE SCIENCE ON THE LAKESHORE | HASLER LAB OF LIMNOLOGY | 12:00 - 2:00 PM**

*Center for Limnology*

Join us at Hasler Lab in our boatslip and wet lab as we talk about some of the key concepts of freshwater science. Learn why spring is the season of lake "turnover." See how what we do on land impacts our waters. And - if the ice is off - visitors will get a hands-on demonstration of using our lake sampling tools!



## **LEONARD R. INGERSOLL PHYSICS MUSEUM | LEONARD R. INGERSOLL PHYSICS MUSEUM | 10:00 AM - 5:30 PM**

*Department of Physics*

Our museum consists of over 65 exhibits with some rotating in and out each year. Our exhibits give our guests a hands-on experience of physical concepts ranging from mechanics to modern physics in a demonstrational kid-friendly environment.



## **LEAF CUTTER ANT DISPLAY COLONY | MICROBIAL SCIENCES MICROBE PLACE | 10:00 AM - 12:00 PM**

*Bacteriology Department*

Come and visit the leaf cutter ants! Learn about how they are the world's original farmers and what they can teach us about antibiotics, farming and biofuels! Play an ant inspired game and watch as these live ants as they cut leaves and feed them to their fungus gardens!



## **GIVEN TO REMEMBER: THE HOLOCENE EXTINCTION IN PRINT (LIBRARY EXHIBIT) | MEMORIAL LIBRARY FLOOR 9R | 12:00 - 5:00 PM**

*UW-Madison Libraries*

"Given to Remember: The Holocene Extinction in Print" is an exhibition featuring materials from the UW-Madison Libraries, including UW-Madison's Special Collections, the Kohler Art Library, Memorial Library, the Leith Library of Geology and Geophysics, and Steenbock Library of Agricultural & Life Sciences, Engineering, Veterinary Medicine. Highlights include a variety of printed works by geologists, zoologists, and other naturalists; a display of fine press and artist's books that engage with concepts such as biodiversity and environmental degradation; and a selection of artistic and literary treatments of extinction and extinct species of animals and plants. Note: The exhibit is self-guided, but the curator will also be available during this time for discussion and questions.



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## **THE WISCONSIN SCIENCE MUSEUM | WISCONSIN SCIENCE MUSEUM | 10:00 AM - 4:00 PM**

*Wisconsin Science Museum*

Museum exhibits are designed to inspire interest in science, technology, engineering and mathematics. We celebrate the achievements of people working in Wisconsin or educated here. Visitors can see technological creations up close and learn about them. Some technology can be seen in action. There are opportunities to touch things, make things and operate things.



## **GEOLOGY MUSEUM OPEN HOUSE | LEWIS G. HALL | 9:00 AM - 4:00 PM**

*UW Geology Museum*

Explore the Geology Museum and take a peek into Wisconsin's deep history! On your visit you can touch rocks from a time when there were volcanoes in Wisconsin; see corals, jellyfish and other sea creatures that used to live and swim where we now walk; and stand under the tusks of a mastodon while imagining yourself in the Ice Age. Also on display at the Geology Museum are rocks and minerals that glow, dinosaurs, and meteorites. Our mineral, rock and fossil collections have the power to educate and inspire visitors of all ages. Come see for yourself!



## **DC SMITH GREENHOUSE 25TH ANNIVERSARY | DC SMITH GREENHOUSE | 10:00 AM - 2:00 PM**

*College of Agricultural and Life Sciences*

Come explore our space with hands-on activities, free houseplants and tours by UW students excited to share what they are learning. Help us celebrate 25 years of undergraduate plant science and outreach in the greenhouse.



## **SUSPENDED LANDSCAPES: THREAD DRAWINGS BY AMANDA MCCALOUR | CHAZEN MUSEUM | 11:00 AM - 5:00 PM**

*Chazen Museum of Art*

Amanda McCavour's thread drawings will fill the Chazen Museum's Paige Court, depicting Wisconsin flora on a monumental scale.



## **INTERCAMBIOS: ART, STORIES, & COMUNIDAD | RUTH DAVIS DESIGN GALLERY | 12:00 AM - 4:00 PM**

*Chazen Museum of Art*

Intercambios: Art, Stories, & Comunidad presents collaborative works from artists in Madison, Wisconsin, and Oaxaca, Mexico. Featuring painting, vibrant textiles, photography, printmaking, music, and video, the artists visually explore intersections of cultures, disciplines, concepts of art, belief systems, and community. By examining these intersections, Intercambios allows for conversation about what it means to cross worlds; life and death, art and craft, and the borders between countries, and languages. The exhibition provides an essential platform for these artists to examine what they share and celebrates the diversity of contexts and perspectives that each provides.



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## **MARMOSETS IN OUR MIDST | WISCONSIN NATIONAL PRIMATE RESEARCH CENTER | 2:00 - 5:00 PM**

*Wisconsin National Primate Research Center*

Join us at the Wisconsin National Primate Research Center to learn about life-saving research and humane animal care. The common marmosets in our lobby vivarium inspire curiosity among all ages. We will also have some cool videos and hands-on outreach activities on site or to take home. Please contact Jordana Lenon at [jlennon@primate.wisc.edu](mailto:jlennon@primate.wisc.edu) if you or your group would like to schedule a visit to our Marmoset Learning Lobby at another time.



## **GARDEN OPEN HOUSE | ALLEN CENTENNIAL GARDEN | 7:00 AM - 7:00 PM**

*Allen Centennial Garden*

Allen Centennial Garden is open daily from dawn to dusk and admission is free.



## **WASHBURN OBSERVATORY OPEN HOUSE | WASHBURN OBSERVATORY | 8:00 AM - 10:00 PM**

*UW Astronomy Department*

Tour the dome of historic Washburn Observatory and join us for observing through the telescope (weather permitting). Note: Enter through the south door (that faces away from the lake) and go up the stairs to the right. The telescope is not handicap accessible and is only reachable by climbing a flight of stairs.



## **AOSS OPEN HOUSE | 1225 WEST DAYTON ST | 10:00 AM - 2:00 PM**

*Atmospheric, Oceanic and Space Sciences*

Weather and climate activities plus roof tours (masks will be required on the elevators)



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## **EXPLORE INSECT DIVERSITY | UW-MADISON ARBORETUM | 12:30 PM - 4:00 PM**

*Insect Ambassadors*

Learn about the diversity of insect life in Wisconsin and beyond with pinned specimens, microscope stations, and live Madagascar hissing cockroaches!



## **HOW WELL DO YOU KNOW REPTILES? | UW-MADISON ARBORETUM | 12:30 - 4:00 PM**

*Madison Area Herpetological Society*

Reptile and amphibian education and outreach



## **NAME THAT ADAPTATION | UW-MADISON ARBORETUM | 12:30 PM - 4:00 PM**

*International Crane Foundation*

ICF's exploration station will explore the many adaptations cranes have for their wetland habitats through the use of animal artifacts which include a skull, feather, leg, egg, and plush chick. We will also discuss how to identify our two Wisconsin crane species. We will provide handouts such as stickers, origami crane tutorials, and a crane puppet tutorial. Finally, we will prepare a crane-themed nature bingo game for kids to use while they walk around and explore the arboretum.



## **EXPLORING SCIENCE OUTDOORS | UW-MADISON ARBORETUM | 12:30 - 4:00 PM**

*UW-Madison Arboretum*

The Arboretum will be open for exploration stations and activities from 12:30 -4 pm. There will be naturalist led walks from 1-2. The Children's Activity area will have space for youth to play and explore.



## **LET EBLING LIBRARY HELP YOU FIND HEALTH INFORMATION | HEALTH SCIENCES LEARNING CENTER | 12:00 PM - 2:00 PM**

*Ebling Library for the Health Sciences*

Information School students who work at Ebling can assist visitors in finding health related information online. From adverse effects of a drug to identifying a clinical trial to the most current information on COVID-19 and its variants, there are institutional, private and governmental web sites and databases of use. There will also be the popular skeleton velcro puzzle, which children love to assemble and reassemble. There may be an exhibition of rare books & prints on the 3rd floor of Ebling Library (above the Atrium)- but that is still in the making.



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## **DNA AND YOU | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*All of Us*

Learn more about DNA and how it shapes your health with fun interactive activities.



## **SAY WHAT? HOW HEARING WORKS AND HOW TO KEEP YOUR EARS HEALTHY | HEALTH SCIENCES LEARNING CENTER | 12:00 PM - 2:00 PM**

*Communication Sciences & Disorders - Audiology*

Take an interactive journey through the human hearing system! Discover how sound travels through different parts of the ear to the brain, build a cochlear hair cell out of candy, and learn how to protect your delicate auditory system from dangerous noise levels.



## **ASTHMA MANAGEMENT | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Wisconsin Society of Pharmacy Students - Operation Airways*

We will bring materials regarding facts about asthma and its prevalence, as well as information on treatment. We will bring interactive components, including a wide variety of inhalers that participants can interact with.



## **ALL ABOUT OVER-THE-COUNTER MEDICATIONS! | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Wisconsin Society of Pharmacy Students - Over the Counter Medication Safety (School of Pharmacy)*

We will have fun, interactive activities to learn more about the safe use of over-the-counter medications. These activities will include learning how to read a Drug Facts label and also how to accurately measure liquid medications.



## **THE PUZZLES OF THE BRAIN | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Department of Educational Psychology*

For our exploration station, we intent to have various puzzle activities relating to the brain. The various puzzles we intend to bring are:

1. Brain Helmets --> allows kids to color both hemispheres of the brain, cut them out, tape them together, and create their own brain hat to take with them. The hat also labels the various lobes/hemispheres/important structures of the brain.
2. The Stroop Test --> we are going to print out the stroop test to play with the families. Will provide both laughs and education on how the brain works.
3. Brain Memory --> we will have a memory game to play with various fun facts, brain structures, and more to play with families. This will also include an educational component on memory to teach the families as they play the game.



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## **BACTERIA AND ME | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Kohler Fellowship*

What color are bacteria? You get to decide and color yourself with a coloring book all about bacteria and microbiology! We will have a full coloring station with pages from this brand-new coloring book.



## **A LOOK INSIDE YOUR BRAIN | HEALTH SCIENCES LEARNING CENTER | 12:00 PM - 2:00 PM**

*UW-Madison Neuroscience Training Program*

Have you ever wondered what a real human brain looks like? UW-Madison's Neuroscience graduate students will be showing a real human brain and describing how your brain allows you to move, see, smell, talk, and remember what you learn.



## **DOCTORS OUGHT TO CARE (DOC): ORGAN PRESENTATION | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*UW-Madison SMPH DOC Program*

Learn about the wonders about the human body from medical students!



## **CHILD LIFE MEDICAL PLAY AND DISTRACTION FOR KIDS | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Child Life*

Medical Check up station and exploration area for kids with medical equipment.



## **KEEPING YOUR HEART HAPPY WITH HEART HEALTHY ACTIVITIES | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Wisconsin Society of Pharmacy Students (WSPS)*

In this activity, participants will be engaged in identifying activities that are both healthy and unhealthy for the heart. The activity involves a game in which participants place faces next to the activity to indicate whether it is healthy or unhealthy for their hearts. A stethoscope is also available for participants to view.



## **DIABETES EDUCATION AND EXPLORATION | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*WSPS Operation Diabetes*

We will have fun interactive games for kids to learn more about nutrition and information about healthy eating, exercise, and risk reduction for adults.



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## **LAKE SCIENCE ON THE LAKESHORE | HASLER LAB OF LIMNOLOGY | 12:00 - 2:00 PM**

*Center for Limnology*

Join us at Hasler Lab in our boatslip and wet lab as we talk about some of the key concepts of freshwater science. Learn why spring is the season of lake "turnover." See how what we do on land impacts our waters. And - if the ice is off - visitors will get a hands-on demonstration of using our lake sampling tools!



## **BE WISE AND SHADE YOUR EYES | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*McPherson Eye Research Institute*

This exploration station uses uv-sensitive beads and uv-blocking materials to educate visitors about damaging UV light and promote sunglass use to limit UV light exposure to the eye.



## **INFORMATIONAL TABLE FOR HEALING LABS AND THEIR ACTIVITY IN THE COMMUNITIES | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Healing Labs Consortium*

Informational table for Healing Labs and their activity in the communities.



## **PLANTS IN SPACE | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Department of Botany*

Our exploration station will have plants and examples of spaceflight hardware currently in use on the International Space Station along with equipment used to mimic the weightless environment of space on Earth. Lab members who have all worked on spaceflight experiments will be available to discuss and demonstrate how plants are affected by growing in space.



## **MEDICAL PHYSICS: PUTTING THE 'RAD' IN RADIATION! | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*UW Medical Physics*

Our table will have multiple activities to share that demonstrate major topics in medical physics including radiation safety, radiation therapy, and medical imaging. We will have a Geiger-muller counter and radioactive fiestaware for visitors to explore. We will also have a portable ultrasound system and gelatin brain. Finally, we will bring a radiation therapy treatment planning simulation activity. Visitors will be encouraged to engage in any activities that interest them!



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## **DIFFERENT WAYS OF SEEING | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*McPherson Eye Research Institute*

This exploration station utilizes specially prepared goggles that participants wear to simulate visual impairments and experience some of the difficulties faced by the visually impaired on a daily basis. Participants try reading, writing, telling time, looking at eye chart, catching a ball while wearing the simulation goggles, and try reading in Braille.



## **DNA AND YOU! | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Center for Human Genomics and Precision Medicine*

Participants will learn that DNA is the instructions for You and have the opportunity to see what their DNA instructions say by making a trait bracelet. Participants can then compare their trait bracelet to their friends and family to see how similar and different they are.



## **THE ODYSSEY OF PLANTS | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Plant Cellular and Molecular Biology (PlantCMB)*

The Odyssey of Plants activity will explore the nature of plants and how they interact with their environment. Hands-on activities will be used to learn about (1) the basic necessities seeds need in order to grow using a paper towel seed setting method, (2) the unique compounds plants can make like pigments using simple testing procedures with household products, (3) the types of microbes that plants can encounter in their environment and what determines if they are good or bad microbes for plants by visualizing these associations under a microscope, and (4) the different ways plants are able to sense their environments using only touch and gravity.



## **DNA: THE BUILDING BLOCKS OF EVERYONE | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*SACNAS Chapter at UW-Madison*

Participants will learn about DNA by making DNA strand bracelets and will have the opportunity to look through microscopes to understand model organisms.



## **LEARN HOW TO READ NUTRITION FACTS! CAN YOU FIGURE OUT HOW MUCH SUGAR IS IN EACH FOOD? | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Professional Association of Latinx Students for Medical School Access (PALMA)*

Before completing the activity we will explain the importance of reading nutrition labels to follow a balanced diet. We will have a few food products with nutrition fact labels and bags with sugar that correspond to the amount of sugar in each individual food. Participants will use a scale to figure out which sugar bag belongs to which food product which will help them visualize nutrition fact labels. Following the activity we will talk about the difference between moderation vs restriction, and inform of different eating disorders to prevent an unhealthy relationship with nutrition facts. ing liquids and food items we consume and how they may glow in the dark.



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## **WSPS OPERATION IMMUNIZATION | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Wisconsin Society of Pharmacy Students - Operation Immunization*

Education on the importance of vaccines, addressing vaccine hesitancy, and promoting the role of pharmacists in healthcare.



## **EXPLORING THE IMPORTANCE OF DRUG SOLUBILITY IN THE PHARMACEUTICAL SCIENCES | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*UW-Madison School of Pharmacy / American Association of Pharmaceutical Scientists (AASP) UW-Madison Student Chapter*

We will have three containers with slightly acidic water (pH ~ 5-6) as well as three over-the-counter medications of the same active drugs with different formulations (example: tablets, liquids, gels, etc.). Then, we will add each medication into the water containers and see how the water acidic environment affects the solubility or release of the drug medication. The purpose of the activity is to introduce the public to how the different drug formulations of commonly used medications affect the release of the active drug inside the body, and how that can affect the overall action of that particular drug to treat diseases. Additionally, during the activity, we will describe how pharmaceutical scientists play a role in discovering and understanding the mechanism of action of the medications we use commonly today.



## **WHEEL OF SCIENCE POLICY | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Catalysts for Science Policy (CaSP)*

Exploration station-- participants will pick a problem to solve (i.e. dirty lake water), suggest a science policy solution, and spin the wheel of science policy to see if their policy can become a reality, facing fates such as "misinformation spreading about your policy" or "researchers at UW just finished a study that adds support to your policy!". 2/3 positive spins means your policy passes and you win a prize, 2/3 negative spins means it doesn't.



## **WSPS OPERATION MEDDROP: SAFE MEDICATION STORAGE AND DISPOSAL | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*UW-Madison School of Pharmacy Student Organization- Wisconsin Society of Pharmacy Students (WSPS)*

To educate young children about proper medication safety and disposal, we will have two different games for the kids to participate in. Our first game will be a "candy or medication" game; in this, the children will have to guess between two options of either a candy or medication. This game will allow kids to see how closely candy and medications can be and to always be safe/ know what they are ingesting. The other game will be for students to spin our colored wheel and answer a question about pharmacy and/or medication safety. We will also have information about how to store medications for parents and explain to participants what MedDrop/ Take-Back events are and where they can find them.



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## **COMPOUNDING MEDICATIONS | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*School of Pharmacy*

During this hands-on lab attendees will learn to compound an oral suspension, and see a sterile product preparations demonstration.



## **DOCTORS OF PHARMACY | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Doctor of Pharmacy*

Attendees will be able to tour facilities, see lab and classrooms spaces from current students in the PharmD program. Come learn about what makes this program one of the best in the country!



## **WHEN PILLS FAIL! WHY IS DRINKING MILK BETTER THAN TAKING CALCIUM PILLS? | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*School of Pharmacy*

If a pill doesn't dissolve in your stomach, it can't go into your body. Calcium is important for building strong bones and teeth. Unfortunately, a lot of the calcium in a pill goes down your throat and comes out the other end without going anywhere near your bones or teeth. When a pharmaceutical product gets into your body, we say that it is bioavailable. Some vitamin and mineral pills have poor bioavailability, which is one reason it is best to eat a balanced healthy diet. In this exercise we will take two different types of calcium pills and add them to simulated stomach fluid. To find out how much calcium dissolves, we will use a titration assay with Eriochrome Black T. This is a chemical test that changes color from blue to pink when it interacts with calcium. Participants will try on gloves and goggles and use real chemistry titration equipment to find out which calcium pill dissolves the most.



## **THE WONDERS OF PHYSICS | CHAMBERLIN HALL | 1:00 - 4:00 PM**

*Department of Physics*

The Wonders of Physics is a fast-paced, engaging, and educational physics program, filled with demonstrations that help people better understand the physics in the world around them, while having fun at the same time!



## **SUSPENDED LANDSCAPES: THREAD DRAWINGS BY AMANDA MCCALOUR | CHAZEN MUSEUM | 11:00 AM - 5:00 PM**

*Chazen Museum of Art*

Amanda McCavour's thread drawings will fill the Chazen Museum's Paige Court, depicting Wisconsin flora on a monumental scale.



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## **INTERCAMBIOS: ART, STORIES, & COMUNIDAD | RUTH DAVIS DESIGN GALLERY | 12:00 AM - 4:00 PM**

*Chazen Museum of Art*

Intercambios: Art, Stories, & Comunidad presents collaborative works from artists in Madison, Wisconsin, and Oaxaca, Mexico. Featuring painting, vibrant textiles, photography, printmaking, music, and video, the artists visually explore intersections of cultures, disciplines, concepts of art, belief systems, and community. By examining these intersections, Intercambios allows for conversation about what it means to cross worlds; life and death, art and craft, and the borders between countries, and languages. The exhibition provides an essential platform for these artists to examine what they share and celebrates the diversity of contexts and perspectives that each provides.



## **GARDEN OPEN HOUSE | ALLEN CENTENNIAL GARDEN | 7:00 AM - 7:00 PM**

*Allen Centennial Garden*

Allen Centennial Garden is open daily from dawn to dusk and admission is free.



## **LEONARD R. INGERSOLL PHYSICS MUSEUM | LEONARD R. INGERSOLL PHYSICS MUSEUM | 10:00 AM - 5:30 PM**

*Department of Physics*

Our museum consists of over 65 exhibits with some rotating in and out each year. Our exhibits give our guests a hands-on experience of physical concepts ranging from mechanics to modern physics in a demonstrational kid-friendly environment.



## **SCIENCE EXPEDITIONS AT THE LAKESHORE NATURE PRESERVE | PICNIC POINT | 1:00 - 2:30 PM**

*Friends of the Lakeshore Nature Preserve*

At the entrance to Picnic Point, near the stone wall, friendly guides will give each person a booklet that contains a map of Picnic Point, with our three exploration stations indicated on it. The guides will direct visitors to the exploration stations sited along the path to the tip of Picnic Point. The booklet also contains activities and challenges related to those three stations.

At the Rock Wall, Geology Professor Phil Brown and Science Olympiad coach Scot Moss will introduce visitors to the origins and kinds of rocks in the stone wall. At the Tree Station, Friends board members Matt Chotlos and UW student Will Vuyk, will help visitors identify leafless trees and calculate tree age. On the hillside inside the stone wall, a Birding Station will be hosted by gifted naturalists Paul Noeldner, Ashley Olah and Chuck Keleny. They will provide strategies for identifying birds, and binoculars and a spotting scope for guests to look into the spring sky and across



## **LIQUID NITROGEN ICE CREAM | HEALTH SCIENCES LEARNING CENTER | 12:00 - 2:00 PM**

*Madison County Day School / Edgewood College Office of Science Outreach*

We will make liquid nitrogen ice cream with guests and discuss the thermodynamics of making ice cream.



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# Available All Weekend Virtual Events



## WHAT'S THE BUZZ ABOUT BUGS AND BACTERIA?

*Department of Bacteriology*

We have developed a PDF activity sheet targeted towards elementary school aged kids. The goal is for kids to learn about the body parts of insects and how they function. Kids will learn that the bacteria inside an insect can be just as important as their antennae or mouthparts! The structure of this PDF will be a page of information followed by a page describing an engaging activity based on the new knowledge provided. The first activity will be a song called "Head, thorax abdomen" sung to the tune of "Head, shoulders knees and toes". Next, kids will learn about how insects use antennae to "smell", followed by an activity of making antennae out of household items. Third, a primer on insect mouthparts followed by an activity using straws, sponges, and clothespins to try to "eat" different types of food represented by water or dried beans/pasta. Finally, some background on ways that bacteria help insects digest food followed by an activity where kids use shape and color to match the insect to the microbe that completes an essential function. Location on Thinglink: Microbial Sciences.



## QUANTIME

*Department of Physics*

Let's celebrate World Quantum Day! QuanTime will run from April 11-May 31, 2022. During this time, we hope you will join other quantum enthusiasts around the country in trying out a quantum activity. The activities we are sharing have been designed for K-12 and are a fun way to introduce quantum information science. You can choose between online and hands-on activities. No expertise in quantum science is required. Register to let us know your interest and so we can add you to our map! Location on Thinglink: Chamberlin.



## WONDERS OF QUANTUM PHYSICS

*Department of Physics*

Explore the wonders of quantum physics and quantum information science through these fun, easy-to-do activities! Location on Thinglink: Chamberlin.



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Explore the wonders of quantum physics and quantum information science through these fun, easy-to-do activities! Location on Thinglink: Chamberlin.

**Go to <https://science.wisc.edu/science-expeditions/>  
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## **CAN YOU ALWAYS BELIEVE WHAT YOU SEE**

*McPherson Eye Research Institute*

Dr. Rodney Schreiner of the McPherson Eye Research Institute at the University of Wisconsin-Madison presents several optical and visual illusions to help answer the question "Can You Always Believe What You See?" Location on Thinglink: WIMR.



## **IN THE DARK AND IN THE LIGHT**

*McPherson Eye Research Institute*

A presentation describing how vertebrate animals have all adapted one structure, the eye, to get the most information possible from the light available in their niche environment. Compare eye structures from diurnal and nocturnal vertebrates and see adaptations for bright daylight or dim nocturnal vision. Location on Thinglink: WIMR.



## **DIFFERENT WAYS OF SEEING**

*McPherson Eye Research Institute*

In this activity you will create masks that will allow you to experience three different impaired ways of seeing: Tunnel vision, Impaired acuity, and Central blind spot Location on Thinglink: WIMR.



## **WHAT AM I SUPPOSED TO SEE?**

*McPherson Eye Research Institute*

Dr. Rodney Schreiner of the McPherson Eye Research Institute at the University of Wisconsin-Madison uses artworks to investigate how our brain works to make sense of our visual perceptions. The presentation is based on a 2019 exhibit in the Mandelbaum & Albert Family Vision Gallery. Location on Thinglink: WIMR.

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## **ORGAN DONATION AWARENESS - ORGANS AND TISSUES INVOLVED IN THE DONATION PROCESS**

*UW-Madison School of Pharmacy WSPS Operation Organ Donation Awareness Co-Chair*

As a student organization at the School of Pharmacy, WSPS Operation Organ Donation Awareness focuses on involvement within the community in order to promote awareness about the importance of organ donation and the impact it has on patient lives. We created an educational video to teach others about organs and tissues and their role within the donation process. <https://youtu.be/WK3IotfBx6M>  
Location on Thinglink: Reneebohm.



## **PREVENTING THE MISUSE AND ABUSE OF PRESCRIPTION MEDICATIONS AND OTHER DRUGS**

*UW-Madison School of Pharmacy - Wisconsin Society of Pharmacy Students (WSPS) - Operation Substance Use Disorder*

This is a pre-recorded presentation that discusses alcohol, tobacco, and prescription drug misuse and abuse; the opioid epidemic; and what can be done to improve this public health problem. The presentation contains several interactive questions for students to think about. Location on Thinglink: Reneebohm.

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