

2008-2009

Educator's Guide to Field Trips

at the University of Michigan Exhibit Museum of Natural History

Scheduling

Getting started

- All reservations are made by phone. Please call (734) 764-0478 from 9 to 5 weekdays.
- Space is limited — call early. All reservations must be made at least two weeks in advance.
- You will need the following information:
 - o date and time of your visit
 - o number of children and adults
 - o activities you'd like to schedule
 - o school address and phone number

Fees

- A non-refundable \$75 deposit (or full payment, whichever is less) is due within 3 weeks of making your reservation, to hold your program time and date. Your deposit will be applied to your program fee. The remaining balance is due upon arrival. No additional fee will be charged.
- Per-person fees are listed to the right.
- Payment: Cash, check, or credit card (Visa, Mastercard). Make checks payable to "U-M Exhibit Museum."
- Teachers will be admitted FREE. Chaperones are charged the same as students. We recommend one chaperone for every 10 students.
- For home-schooled groups, the Museum will admit up to 3 adults FREE for every group of 10-30 visitors.

Confirmation

After receiving your deposit, we will send you a confirmation letter with program information, parking instructions, and a map. Please call us if your itinerary is incorrect.

Arrivals

All scheduled activities begin at quarter past the hour. Please arrive 5-10 minutes before the start of your program to pay group fees, use the restrooms, and hang up coats. We try to accommodate late groups, but latecomers may have to accept a restructured program.

Parking

There is ample FREE bus parking in the lot behind the Museum. For private vehicles, please allow extra time to find parking. We will send a map with your confirmation suggesting several parking options.

Cancellations & Weather Policy

Groups that cancel or do not arrive forfeit their deposit. Exceptions made for inclement weather.

Program Info

Program	Grade	Program Duration (minutes)	Capacity	Fees per Person
Self-Guided Visit (year round)	all ages	150	60-90	\$2
Learn it! Do it! Days				
Bats of the World (Dec 10, Apr 22)	K-12	60	60	\$6
Wild Weather (Oct 24, Feb 6, Apr 2, Apr 3)	1-4	120	~120	\$6
Michigan Wildlife (Dec 5, Jan 23, Mar 20)	1-5	120	~120	\$6
The Three Fires (Nov 13, Nov 14)	1-8	120	~120	\$6
Geology Rocks (Nov 7, Jan 16, Mar 13)	2-5	120	~120	\$6
Explore the Universe! (Mar 27)	2-6	120	~120	\$6
Environmental Stewardship (Apr 17)	6-12	120	~120	\$6
Guided Tours and More! (Oct-Jun)				
Dancing with the Dinosaurs	preK-K	20	60	\$5
Prehistoric Explorers	preK-K	60	30	\$3
Prehistoric Life	1-8	60	60	\$5
Behind the Scenes: Mammals	6-12	60	60	\$5
Explore Evolution	7-12	70	120	\$5
Planetarium Shows (Nov-Aug)				
Musical Sky	preK-K	36	30	\$3
Wonderful Rocket	1-3	36	45	\$4
Mix & Match	1 & up	36	45	\$4
The Sky Tonight	1 & up	36	45	\$4
Sun, Earth & Moon	2 & up	36	45	\$4
The Solar System LIVE!	2 & up	36	45	\$4
Stories My Ancestors Told (Nov-Apr)	3 & up	36	45	\$4
Seasons Lab	4 & up	36	45	\$4
Full-Dome Experiences	various	36	45	\$4

Outreach • Call Matt Linke at (734) 647-1381

Special Topics • Call Kira Berman at (734) 647-8574

Self-Guided Visits

Cost: \$2 per person for 60-90 minutes. Your self-guided time is FREE in combination with any other scheduled program.

Scavenger Hunts

Age-appropriate assignments that help focus student observation are available on our website — www.lsa.umich.edu/exhibitmuseum/education — or we can send them to you by mail at your request. We now offer more scavenger hunts than ever! Answer keys are available. Download your updated copy today!

Grades 1 - 4

Grades 5 - 8

Women in Science (Grades 5 - 9)

Competitive Teams (Grade 6 - Adult)

Evolutionary Biology (High School and College)

Family Scavenger Hunt (All ages)

Scholarships

Financial assistance is available. To qualify, at least half of the students at your school must receive free or reduced lunch. Your entire group will receive 50% off the total cost of one program during your visit. Call (734) 764-0478 to ask about scholarship availability. **Scholarship funds are limited, so call as early as possible.**

Thanks to our sponsors for their generous support of 2008-09 scholarships: **Anonymous, Buhr Foundation, Suzanne Goodrich, Helen L. Kay Private Charitable Foundation, and Target**

Join our teacher e-mail group for updates and special offers. Sign up at our website (www.lsa.umich.edu/exhibitmuseum). Click on "Education," then "School and Community Programs," then "Teacher E-mail List."

Learn It! Do It! Days

Bats of the World

Grades K-12
December 10, 2008;
April 22, 2009

Step into the world of bats with this exciting multimedia presentation with a cultural geographic perspective. See live US bats, South American bats, and rare African bats with four-foot wing spans! Topics include sound waves, ecosystems, food webs, and conservation.

Wild Weather Extravaganza

Grades 1-4
October 24, 2008;
February 6, 2009
April 2, 2009; April 3, 2009

Our weather activities will blow your students away! Build a working weather station, explore extreme weather, travel through the water cycle, and dance your way through the states of matter! A scavenger hunt highlights weather related themes in the natural world.

The Three Fires of Michigan: Natural History from a Native American Perspective

Grades 1-8
November 13, 2008;
November 14, 2008

Step outside of the text books to sing, dance, and see the natural world in new ways with the people of the Three Fires (the Ojibwe, Bodewadami, and Odawa tribes). Hear stories and songs in Ojibwe and English, discover which minerals are important to local tribes, how tribes are working to preserve the Great Lakes, and how Native people hunt and prepare wild turkey.

Michigan Wildlife and Ecology: A Web of Connections

Grades 1-5
December 5, 2008
January 23, 2009; March 20, 2009

Explore the diversity of wildlife right in our own backyards! Handle skeletons and skins, build a food web, investigate adaptations and predator-prey relationships, and discover what's special about the critters we find right here in Michigan!

Geology Rocks

Grades: 2-5
November 7, 2008; January 1,
2009; March 13, 2009

Dig into geology! Learn the difference between rocks and minerals, and explore different minerals using our brand new stereoscopes – you'll make your own slides, too! Find out what minerals are hiding in everyday household objects. Learn how earthquakes happen and make your own with our Quake Shake. Discover how rock layers stack up and touch a rock that's over two billion years old! Students will leave with the start of their very own rock collection, including one of each of the three major kinds of rocks.

Environmental Stewardship in a Changing World

Grades 6-12
April 17, 2009

Empower your middle and high school students to explore real environmental issues in depth, along with policy solutions on small and large scales. Activities, experiments, and presentations will explore research on climate change, sustainable energy and food production, product life cycles, invasive species, and more! Students and teachers will leave with plenty of information, as well as simple projects and solutions to implement in their schools and communities.

Explore the Universe

Grades: 2-6
Friday, March 27, 2009

Four hundred years ago, Galileo Galilei first pointed his telescope at the night sky. What he saw revolutionized astronomy. Celebrate the International Year of Astronomy in 2009 with this special, one-day event:

- Enjoy displays, crafts, and experiments that highlight student experiences
 - Explore a visiting exhibition on the Hubble Space Telescope
 - Play with simple optics
 - Find out why a year on Mars is longer than a year on Earth
 - Learn about rockets and satellites
 - Find out what NASA has planned for the Moon and Mars.
- Plan to spend at least 90 minutes in the galleries.

Optional Extras include:

- One hour bus tour to the labs of the Department of Atmospheric, Oceanic and Space Sciences with a graduate student guide. View sensing equipment sent on space probes within our solar system. FREE
- Special 25-minute full-dome program about the accomplishments of the Hubble Space Telescope. Or choose a 25-minute planetarium review of the current night sky, the planets, or motions of the sky. \$3 per person

Planetarium

Big News in the Planetarium!

Thanks to a generous lead gift by U-M alumnus Lee Hess, and many other gifts, the Planetarium has a new, state-of-the-art, digital projection system. The new system's full-color, full-dome, 3-D animations will thrill your students while helping them to understand astronomy concepts and other information.

Your students will be able to "fly" through space to see planets up close, or travel to the edge of the Milky Way galaxy to help them understand their place in the universe. The visual excitement of the new technology will bring to life the most fundamental planetarium experience: exploring the night sky.

New all-dome programs and non-astronomy content will soon be added. Watch the Planetarium pages on the Museum's web site for the most up-to-date information.

Matching content to the new science standards can be tricky! When in doubt, consider a "Mix and Match" program. You and the planetarium director will create a program that is precisely what you need.

Full-Dome Experiences

These 20- to 25-minute full-dome presentations transport your students to places near and far, exploring astronomy and other topics. A 15-minute live add-on presentation on the topic of your choice concludes each full-dome program, making the total time 45 to 50 minutes.

Full-dome shows available: "Black Holes," "Origins of Life," "Stars of the Pharaohs," "MarsQuest," and "The Zula Patrol: Under the Weather"

Add-on topics: The Sky Tonight, Planets, Motions, and Universe.

Please visit the Planetarium pages on the website for details, including recommended grade levels.

Beginnings

Musical Sky

Grades pre-K to K

We'll show star pictures, slides, and sing children's astronomy songs as we explore the sky tonight. We learn about rockets, astronauts, the Moon, and what we can see in the night sky.

Wonderful Rocket

Grades 1 to 3

Enjoy this exciting new version of Rachel, the Wonderful Rocket. We join Rachel the Rocket on an exploration of the planets. By spring, third graders may be too mature for this program. Ask us.

Journeys

The Sky Tonight

Grades 1 and up

We begin by exploring the night sky from an Earth-based perspective. We'll discover bright stars, major constellations, and visible planets, along with motions of the sky and current events. A brief trip into space helps us to understand our place in the Milky Way galaxy.

Seasons Lab

Grades 4 and up

This learn-by-doing measurement lab has your students recording the movement of the Sun during a "year" in the Planetarium. It provides data your students need to take back to school to calculate sun-hours, number of hours of daylight, rise and set positions, and the Sun's noon altitude at the start of each season. See the website for a detailed .pdf document on the lab.

Solar System Live

Grades 2 and up

A live presenter takes your class on a tour of our solar system, discussing planets, motions, and other objects. We'll zoom in to each planet, enjoying breath-taking visualizations, then travel from the Sun to Pluto and beyond, flying even further to see our place in the Milky Way galaxy. Returning to Earth, we explore the night sky for currently visible planets.

Specials

Sun, Earth, and Moon

Grades 2 and up

We explore the motions of the sky, the phases of the Moon, eclipses (if requested), and the changing night sky. How do the motions of the Sun and Earth result in changing seasons? Why do we see the planets that we do? We'll fly to the edge of the galaxy and back, to help students understand our place in the Milky Way. A brief night sky exploration is included.

Mix and Match

Grades 1 and up

Our new Uniview projection technology allows us to go almost anywhere in the visible universe. This program provides an opportunity for you to create the perfect program for your curricular goals. The planetarium director contacts you to plan three to five topics for discussion.

Stories My Ancestors Told

Grades 3 and up

Available November to April only, from first frost to winter's end, in keeping with Native American tradition. This show highlights tales related to the night sky and how it formed, with several Native storytellers on video. Stories come from the Ojibwa, Odawa, and Bodewadimi peoples of Michigan. A night sky discussion is included.

Guided Tours & More

Prehistoric Life

Grades 1-8

Grades 9 – adult by special request

Piece together the past in our most popular program! Children use hands-on inquiry to solve scientific problems, just like the research scientists here at U-M! Learn about fossilization, paleontology, and geologic time. Explore the world of dinosaurs and other prehistoric animals by observing their many adaptations and what they tell us about their lifestyles. Get up close and personal with our incredible collection of skeletons, dioramas, and fossils!

Dancing with the Dinosaurs

PreK-K

Be a paleontologist and explore the dinosaur exhibits with our enthusiastic leaders. This program includes both hands-on exploration in our classroom and guided discovery in the exhibits. Songs, stories, and movement highlight your adventure!

Behind the Scenes:

Mammals and their Adaptations

Grades: 6-12

Are you teaching about animal diversity, variation, or evolution? Jump-start your curriculum with a museum presentation that explains the adaptations that have enabled mammals as a group to become so diverse and successful. Your class will also join a research scientist in the Museum of Zoology for an exclusive, behind-the-scenes tour of the mammal collections! The collections hold over 150,000 research specimens, providing examples of mammalian form and function, and illustrating how individuals vary within a species.

Prehistoric Explorers

PreK-K

A short, guided exploration of our prehistoric life gallery designed especially for larger groups of young children or those on a short-day schedule. Leaders help small groups discover dinosaurs and more, using fossils, puzzles, and other props.

Explore Evolution

Grades 7-12

Students explore our NSF-funded evolution gallery, using the guiding concepts of variation, inheritance, selection, and time. Working in teams with a museum educator, students investigate and explain seven research projects on organisms ranging in size from a virus to a walking whale. Call for availability.



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