



2020 Field Trip Guide

Thursday, October 15th (All 30 min sessions unless otherwise indicated)

Grades	Time	Session Title	Virtual Activity Description
K-5	9:30am	Finding Buried Treasure!	Have you ever wondered how scientists find fossils and use them to learn about life on Earth many, many years ago? In this experience, you'll see how scientists find and unearth bones, carefully clean them, and figure out how to fit them into a larger skeleton? After learning about this process, you'll get to chat with scientists who study geology, fossils, and more! VIEW RECORDING
6-12	9:30am	It is Brain Surgery!	If you were wondering how to become a brain surgeon, this is a chance to ask Dr Mahua Dey! Dr Dey is a brain surgeon, and treats people who have brain tumors. She also has a lab where she studies brain tumors to come up with better ways of treating them. She studied medicine and then trained in neurosurgery and now works at UW Madison as a professor, researcher, and surgeon. Ask Dr Dey Anything! VIEW RECORDING
6-12	10:30am	A Tour Through a Modern Cheese Plant	Cheese plants have come a long way from the days of the cheese maker having to stand by the vat stirring and cutting by hand. At Klondike, we have all kinds of modern tech from 5 axis robots to fully networked control systems. We'll take you on a brief tour, and also explore how cheesemakers blend art and science into our craft. VIEW RECORDING
6-12	11:30am	Meet the Lab: Cancer Detectives	As Cancer Detectives and biomedical engineers, the Skala Lab uses powerful lasers, microscopes, and computing tools to investigate how cells function and how they respond to cancer treatments. VIEW RECORDING
6-12	12:30pm	Lota lota to love about the "Lawyer" fish	In the deep of the Great Lakes, lives a fish with such odd biological traits, it has spawned a slew of unfavorable nicknames. The Burbot (Lota lota) is the only freshwater member of the

			<p>cod family. As a near-bottom dwelling predator, the Burbot is commonly known in Wisconsin as a “Lawyer” or “Eelpout”, and is often sold on restaurant menus as “Poor Man’s Lobster”. The Burbot supports a small commercial fishery in Lake Michigan and is prized for its flaky, white flesh (delicious fried and dipped in butter!). This virtual presentation and demonstration will begin with a discussion on the biology and ecology of the Burbot. Then participants will view a live dissection of a Burbot fish. The event will educate, interest and entertain biology and anatomy students, anglers, fishermen, and Great Lakes lovers. VIEW RECORDING</p>
6-12	1:30pm	Learn how science & engineering work together	<p>Note: This is a 45 minute session. We'll show you a glimpse of our life in the lab, how it can be fun, what interesting materials we work with and so much more! VIEW RECORDING</p>
6-12	1:30pm	Estrategias para contribuir a tener agua, energía y alimentación sostenibles	<p>Note: This is a 45 minute session. Nelson Cardona-Martínez is the director of the Center for a Sustainable Water, Energy and Food Nexus (SusWEF). With his colleagues they are looking for solutions for the effective conversion of agricultural residues into useful products and development of materials for the removal of emerging contaminants from irrigation water. VIEW RECORDING</p>
6-12	2:30pm	My Story in Science So Far: From voices underrepresented in Science	<p>Note: This is a 45 minute session. Join SciMed Graduate Research Scholars (GRS) for an engaging and interactive discussion with scientists and researchers who are underrepresented in Science, Engineering, Technology, and Math careers. Hear about their own science story and their background and see if their journey might be similar or different from your own. VIEW RECORDING</p>

Friday, October 16th (All 30 min sessions unless otherwise indicated)

Grade	Time	Session Title	Description
6-12	9:30am	Using x-rays to measure electrons	Note: This is a 45 minute session. Understanding how the electrons within a material arrange and order is an important step in building and improving the electronics that we already use and developing materials for new and novel electronics. I will give a behind the scenes tour of how we can use x-rays to “see” this order. VIEW RECORDING
K-5	10:30am	Conversation with a Naturalist: Mothing 101	Celebrate the beauty, life cycles and habitats of moths through this informative "how to" virtual moth walk through Cherokee Marsh. Volunteer naturalist Jeff Steele will discuss different ways to attract moths to your own backyard and how to best view them! VIEW RECORDING
6-12	11:30am	A Day in the Life of a Scientist	Have you ever wondered what a science lab actually looks like and who works in a science lab? In this experience you'll get to take a behind-the-scenes tour of a research lab at UW-Madison - with a scientist as the tour guide! After the tour of the lab, you'll get to chat with scientists about what it's like to be a scientist. It's a perfect opportunity to hear more about how they knew they wanted to be a scientist, what their science career pathway was like, and what a day in the life of a scientist looks like. VIEW RECORDING
K-12	12:30pm - 1:15pm	Nature Explorers: Join in the WI Bioblitz	Note this is a 45 minute session. During the Wisconsin Science Festival Bioblitz, join in with people from all across the state during the 100 hours from sunrise on Thursday, October 15 until sunset on Sunday, October 18. Download the iNaturalist app on your device (optional but encouraged), to help better understand the biodiversity (the variety of life) in the state, find at least 10 species in the environment around you and add your observations to the Wisconsin Science Festival Bioblitz project on iNaturalist. VIEW RECORDING To learn more, visit: https://wisconsinsciencefest.org/bioblitz/
K-12	1:30pm	Science is Fun and the Joy of Learning	Fascinating experiments, questions, answers, and more questions. Join Professor Bassam Shakhashiri and friends at the Wisconsin Science Festival VIEW RECORDING



K-12

2:30pm

The Physics Experience

Note: This is a 45 minute session.
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!
The Physics Experience is based on **The Wonders of Physics (TWoP)** program from the University of Wisconsin-Madison Physics Department. Since 1984, **TWoP** has educated and entertained hundreds of thousands of schoolchildren, families, and the general public.
Presenter Mike Randall is the former **TWoP** Senior Outreach Administrator. He has over ten years' experience as a researcher in aerospace, military and industry; and over twenty years in formal and informal education, emphasizing science, technology, engineering and mathematics. For sixteen years, he was involved with a variety of educational robotics programs as an educator, team mentor, judge and referee. He received a B.S. degree in physics from Nebraska Wesleyan University, Lincoln, NE. [VIEW RECORDING](#)

