

Monnie Goldfine Teacher Resource Center



Suggested list of kits for use on the exhibit floor during field trips. Please contact us to help set up your visit, plan your station locations and help build connections back to your program or classroom learning!

Kits	Exhibit Locations	Exhibit Connections
Nature Journaling/Observation Journals (K-12th)	All Exhibits	*Connect with Aquarium staff for support with prompt ideas!
Fish Families (Pre-K-8th) Sort and classify 19 Lake Superior fish. Then find many of those species on exhibit!	Isle Royale, St. Louis River, Unsalted Seas, Baptism River	Use multiple exhibits to apply fish families in real life. Start at Isle Royale to find a variety, then try St. Louis or Baptism River to test knowledge. Use fish cards as prompts.
Clipboard Kits (K-12th) 36 clipboards, pencils, pencil sharpeners, rulers and a few calculators.	All Exhibits	Great to support stations inside or outside. We have two kits, so feel free to reserve more than one set if you have a larger number of students in your group.
Fish in Winter (K-12th) Identifying ways oxygen is mixed into lakes, students become fish and model oxygen use through out the year, then discover behavior adaptations to prevent winter fish kills.	Weather Station, Critter Corner, Wetlands	This activity, relevant only to inland lakes, connects well to the wetlands exhibit.
Fish Structure and Function (K-10th) Compare predator and prey adaptations using costumes. Optional: build a fish (k-2), find a predator and prey example on exhibit.	Isle Royale, St. Louis River	The fun "Build-a-fish" activity works well in the Unsalted Seas exhibit, with students at the amphitheater seating. Students can dress up as fish in front. Then use the sturgeon as a way to apply knowledge. This is tricky, since sturgeon have different adaptations from the examples but students can infer the purposes of those structures.
Animal Behavior Study (K-12th) Collect data using our live fish collection using one-zero observations and time budget analysis. Also adapted for younger students.	Shipwrecks Alive, Unsalted Seas, Isle Royale, St. Louis River	*For 5 th -12 th grade students, there are a few practice activities to teach pre-visit and some needed follow-up to analyze data in order for this station to be a meaningful scientific investigation, but it can also be used to develop observation skills.
A Superior Connection (1st-10th) Build a St. Louis River Estuary food web through student dress-ups and daily migration theater.	Isle Royale, Weather Station, Origins Overlook	The St. Louis River Estuary is right outside the windows on the harbor side of the building, allowing students to connect this lesson to the ecosystem you can see right in front of you!
Lake Superior Rocks (1st-10th) Using props and a script, put on the Geo-Theater to tell the geological story behind the formation of Lake Superior.	Origins, Critter Corner, Wetlands, Weather Station	The lava of the Origins Exhibit helps students visualize the formation of Lake Superior. Use the large Lake Superior satellite photo to explain where the rift valley occurred as tectonic plates pulled apart.
Water Drop Lesson (3rd-10th) Introduce wastewater/storm water to help students understand benefits of clean water.	Wow of Water	Follow up on this lesson at the water table, which helps illustrate the importance and scale of the Great Lakes, as well as the water cycle, but be aware—students will get wet!
Wild Rice Detective (3rd-10th) Introduce the life cycle of wild rice and traditional harvesting methods. Then, students solve mysteries concerning damage to wild rice specimens using real local data.	Origins, Critter Corner, Wetlands, Weather Station	Panels near Wetlands Exhibit about the Kakagon River Slough merit a close read for students before or after this lesson. This large estuary holds the largest stands of wild rice along the shores of Lake Superior and is a designated wetland of international significance.
Using a Key for Fish ID (4th-10th) Use a dichotomous key to identify Minnesota fish.	Isle Royale, St. Louis River, Weather Station, Critter Corner, Unsalted Seas	Students can work in groups at different exhibits to ID fish using the key, then give a tour of the fish in their "habitat" to other groups as a test for comprehension.

Monnie Goldfine Teacher Resource Center: **Take it Outside!**



Great Lakes Aquarium is located right on the St. Louis River Estuary as it meets Lake Superior, making our outdoor environment great for learning too! Sit at the picnic tables to the side of our building, head down to the board walk to be right by the water, gather on the grassy tree-shaded area in front or walk down the hill next to Bayfront Park room to spread out and move!

Kits	Exhibit or Outdoor Connection
<p>Run for Your Life Cycle (K-6th) Students become lake sturgeon traveling a migration route to model life cycle stages.</p>	<p>This activity works best outdoors in any open grassy area. It's a bonus if you can see the St. Louis River and envision the hazards sturgeon face. Visit the Unsalted Seas exhibit to see sturgeon move in the water and learn more about this fish!</p>
<p>Food Chain Tag (K-6th) Discover how energy flows and is transferred between the interdependent organisms of an ecosystem.</p>	<p>This active game works great outdoors in an open grassy area. Students can immediately apply their learning by connecting the simulated food chain to the habitat they are in.</p>
<p>Lake Superior Rocks (1st-10th) Using props and a script, put on the Geo-Theater to tell the geologic story behind the formation of Lake Superior. With extra time learn how to identify 4 common local rocks (granite, rhyolite, gabbro, basalt).</p>	<p>Go rock picking at the beach in Canal Park, a short walk or bus ride away. Can your students spot Enger tower, a marker of the old shoreline of Lake Superior? Students can explore the Origins exhibit to learn more about life in early Lake Superior.</p>
<p>A Superior Connection (1st-10th) Build a St. Louis River Estuary food web through student dress-ups and a daily migration act-out story.</p>	<p>The lift bridge marks the end of the St. Louis River Estuary and the beginning of Lake Superior. Students may be able to spot people fishing near bridge or pier, an indicator that fish migration is likely happening right now!</p>
<p>Becoming a Scientist: Observation and Questioning (1st-12th) Explore the nature and process of science, make observations and develop testable questions.</p>	<p>In addition to observations and journaling on the exhibit floor, take students outside to use the provided tools and make observations on a large scale of the Estuary they can see, or zoom in on a grassy area in Bayfront Park.</p>
<p>Incredible Journey (1st-5th) Students become a water drop in a simulation of how the water cycle works.</p>	<p>Works great to spread out the stations all over the field near Bayfront Park. Can your students find the bucket wall exhibit demonstrating how much water on our planet is fresh water?</p>
<p>Wild Rice Detective (3rd -10th) Introduce the life cycle of wild rice and traditional harvesting methods. Then, students solve mysteries concerning damage and predation to wild rice specimens using real-life local data.</p>	<p>Historically wild rice grew all along the St. Louis River Estuary. Take a walk in front of the Aquarium and observe the shoreline. What challenges to wild rice can you observe in this section of the river today? Do students think rice could grow here?</p>
<p>Examining Cause and Effect: Mussel Mania (3rd-12th) Students become freshwater mussels to explore how invasive species can affect the balance within aquatic ecosystem.</p>	<p>Check out the Aquatic Invaders exhibit: which invasive species would your students rate as the worst invader? Can they come up with a way to share the importance of Drain/Rinse/Dry for all boats and gear that goes in the water (even your hiking boots)?</p>

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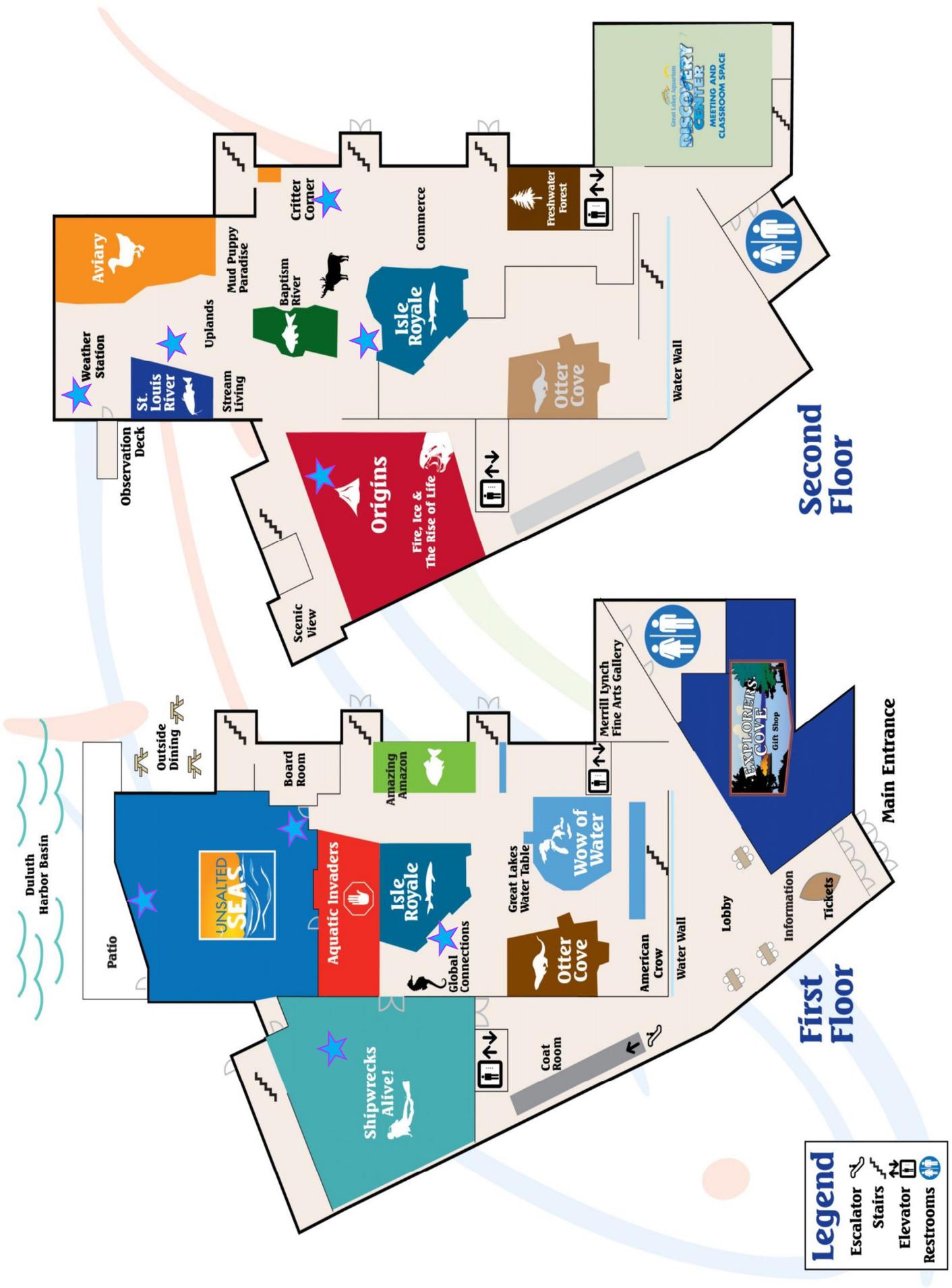


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★ Stars indicate ideal location for stations during a field trip at Great Lakes