



FOR IMMEDIATE RELEASE:

Contact:
Joe Yachanin
Great Lakes Science Center
216.696.3644 (d)
440.669.9584 (c)
yachaninj@glsc.org

Great Lakes Science Center's newest exhibition, All Aboard! The Science of Trains, opens Nov. 3

CLEVELAND (October 3, 2017) – Get ready to keep your curiosity on track starting Friday, November 3 when All Aboard! The Science of Trains opens at Great Lakes Science Center!

The clickety-clack rhythm of passing trains captivates the imagination in a way few other sounds can. The Science Center's newest temporary special exhibition is free with paid general admission, and runs November 3 through February 19. All Aboard! allows rail fans of all ages to get a closer look at the world of the railroads from locomotives to cabooses, through hands-on exhibits and the rail history of Cleveland.

Exhibit experiences, in collaboration with the Midwest Railway Preservation Society, will include the technical wonder of locomotives, the science and engineering of rail transportation, authentic local artifacts and Cleveland railroad history.

Little engineers will enjoy the creative play toddler area with a selection of wooden train sets, a display of HO scale model train bridges on loan from a local expert builder, and an actual Plymouth switcher locomotive located outside the Science Center's main entrance.

Interactive carts explaining everything from MagLev trains, to superconductors and levitation, as well as energy and fuel will be interspersed throughout the exhibition.

A ride-on **Dominion Energy Train** is being custom built by Cleveland-based Christopher Machine Shop for the Science Center. Guests of all ages will enjoy chugging around the exhibition area on this unique ride, also included with general admission!

A **Community build** area, with a plentiful supply of wooden tracks, trains, and landscape pieces, will allow you to build with guests who come before and after you in this community-constructed railroad layout.

The National Model Railroad Association Ohio Division 4 is bringing a **modular HO scale train** set – and they'll be here to demonstrate how model railroading brings creative play and the imagination to life.

Other hands-on exhibition features include:

Reducing Friction – Rolling:

- Why does a steel wheel rolling on a steel rail work? Use a gauge to investigate how much contact there is between the two.
- Why does a heavy train stay on the track and how does it steer? Push and pull an actual 10,000 pound wheelset along the track to test the small amount of friction there is between the wheel and rail.
- Explore how bearings reduce friction on a train wheel set and why trains can be a mile or two long.

Moving the Train – Power:

- Operate and compare a steam and diesel locomotive with model trains on three separate tracks.

Keeping Connected – Pulling and Pushing:

- Examine a real coupler, or “Glad Hand,” air hose mechanism.
- Push and pull a chain on a table to observe the way the coupler linkage functions and experiment with the slack built into the linkage. Test how far a locomotive has to move before the last train car moves.
- Try a “shunting puzzle” – and demonstrate what happens in a railyard.

Safety – Rail Safety:

- See a real maintenance crew car from the 1950s.
- Explore tools used by the crew.
- Ring a bell from a locomotive and wonder at an up close experience with a crossing signal.

Rail History in Cleveland:

- The original brass “Schedule Board” from Terminal Tower
- Maps, photos, posters and other artifacts on loan from Midwest Railway Preservation Society will highlight Cleveland’s role in the nation’s rail history.
- Learn about Midwest Railway Preservation Society’s role in the preservation and restoration of the Steam Locomotive 4070 -- a train that has run on the Cuyahoga Valley Railway line.

(Editor’s note: The Science Center’s fall/winter operating schedule is Tuesday through Saturday 10 a.m. to 5 p.m. and noon to 5 p.m. Sundays. The museum is closed on Mondays and during all home Browns games.)

About Great Lakes Science Center

Great Lakes Science Center, home of the NASA Glenn Visitor Center, makes science, technology, engineering and math (STEM) come alive for more than 300,000 visitors a year through hundreds of hands-on exhibits, temporary exhibitions, the Cleveland Clinic DOME Theater, Steamship *William G. Mather*, daily science demonstrations, seasonal camps, and more. The Science Center is funded in part by the citizens of Cuyahoga County through Cuyahoga Arts and Culture. Visit **GreatScience.com** for more information.

