

↓ JANUARY 14

This month, as part of our Engineering 101 theme, we will explore metals, their uses and what makes them so useful.

HANDS-ON ACTIVITIES

Let's Learn About Metals

Many kinds of metals are found deep in the ground around us. Nails, cans and pots and pans are just a few of the items made of metal that we use every day. Metals can be used in many ways, for work and for play. Today, we'll investigate how we use metals and work with them to create some fun of our own.

How Hard Is Metal?

Railroads: *Allegheny Locomotive;*
Made in America-Manufacturing: *Build a Model T; Dymaxion House*

Visit these objects to explore the different kinds of metal used to make them and why each kind was so important.

Fun Facts About Metal

Museum Plaza

Explore where metal comes from, what you can make with it and why magnets only stick to certain metals.

What Can You Make with Metal

Museum Plaza

Punch and etch your own metal art.

Inspiring Stories

Museum Plaza Under DC-3 Airplane

Join our storyteller, who will read stories to inspire your Tinkering Tot. Today's stories include *What Makes a Magnet?* by Franklyn M. Branley and *What Do You Do with an Idea?* by Kodi Yamada.

ARTIFACT OF THE DAY

1928 Ford Tri-Motor, the Floyd Bennett Heroes of the Sky

Ford built this all-metal airplane with corrugated metal, which gave it more strength than plain sheet metal. Touch the sample of it in the display panel. Other aircraft had been constructed of wood, fabric and metal, so the design of this plane was innovative.

▶ Look on your **welcome guide map** for exhibit and activity locations.

the Henry Ford

PNC BANK

Tinkering for Tots

**HENRY FORD MUSEUM
OF AMERICAN INNOVATION™**

November – January

Inspire big dreams from your little innovators.

Little learners get a head full of STEAM (science, technology, engineering, arts and math) with our hands-on program. Designed for curious preschoolers, our inspired yet playful activities focus on themed materials and then expand outward with storytelling, crafting, building and artifact exploration.

↓ NOVEMBER 12

This month, we continue the Engineering 101 materials theme by exploring awesome innovations made when wood, metal and fabric are combined.

HANDS-ON ACTIVITIES

Compare, Contrast and Combine

Museum Plaza

Review the basics of wood, metal and fabric. Discover what can be made when they are combined.

Crafting

Museum Plaza

Create a clever craft with wood, metal and fabric.

Exploring Combinations

Heroes of the Sky: 1903 Wright Flyer, 1917 Curtiss JN-4 Canuck and 1925 Fokker Josephine Ford; Driving America: Henry Ford's Quadricycle

Compare how wood, metal and fabric are used in the construction of the Wright Flyer and these other innovative machines. Are these materials used for the fuselage (body of the plane), the wings or the mechanical parts?

Inspiring Stories

Museum Plaza under DC-3 Airplane

Join our storyteller, who will read stories to inspire your Tinkering Tot. Today's featured stories include *Amazing Airplanes* by Tony Mitton and *The Inventor's Secret: What Thomas Edison told Henry Ford* by Suzanne Slade.

Special Guest - The U.S. Forest Service

Visit the USFS display to learn about the many uses for wood.

ARTIFACT OF THE DAY

The Ross Chariot

Next to the Lionel train layout in the Railroads exhibit

The Ross Chariot was built by William Ross of New York City in 1797. The use of wood, metal and fabric was slightly different from how those materials were used in the construction of the three airplanes you visited today. Note the decorative metal trim, the wood and metal wheels, and the beautiful fabric upholstery of this handsome horse-drawn vehicle.

▶ Look on your **welcome guide map** for exhibit and activity locations.

↓ DECEMBER 10

This month, we continue the Engineering 101 materials theme by exploring awesome innovations made when various materials are combined.

HANDS-ON ACTIVITIES

Compare, Contrast and Combine

Museum Plaza

Review the basics of wood, metal, plastic, glass, rubber, fabric and natural fibers. Discover what can be made with different combinations of these materials.

Crafting

Museum Plaza

Build and play with a combination of materials.

Exploring Combinations

Fully Furnished: Eames Rocker; Made in America-Power: Glass Ribbon; Your Place in Time: Overland Automobile

Explore the materials used to make a modern rocking chair, a machine that makes light bulbs and the Overland car. Collect a sticker at each stop.

Inspiring Stories

Museum Plaza under DC-3 Airplane

Join our storyteller, who will read stories to inspire your Tinkering Tot. Today's featured stories include *Michael's Racing Machine* by Lawrence F. Lowery and *What Do You Do with a Problem?* by Kobi Yamada.

ARTIFACT OF THE DAY

The Wienermobile

Near American Dog House

The Wienermobile was built in 1952 as a way to advertise Oscar Mayer hot dogs. This cool vehicle is made of plastic, metal, rubber and glass. Check out how these materials go into making a giant hot dog as well as a rubbing souvenir.

▶ Look on your **welcome guide map** for exhibit and activity locations.