

# ↓ 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.