

↓ OCTOBER 8

Fabric and Natural Materials

This month, we continue the Engineering 101 materials theme by taking a fresh look at two previously explored materials: **fabric and natural materials**. We will compare and contrast these two materials and find out how they are often combined.

HANDS-ON ACTIVITIES

25 22 Discover How These Materials Are Used

Ford Home and Hanks Silk Mill

See how burlap and sheep's wool are used to create a beautiful hooked rug at the Ford Home and how worms can help us create silky fabric at Hanks Silk Mill.

36 Crafting with Fabric and Natural Materials

Village Pavilion

Create a nature bandanna by stamping fabric with items we find all around us. See what unusual designs you can create with rocks, twigs and leaves.

36 Inspiring Stories

Village Pavilion

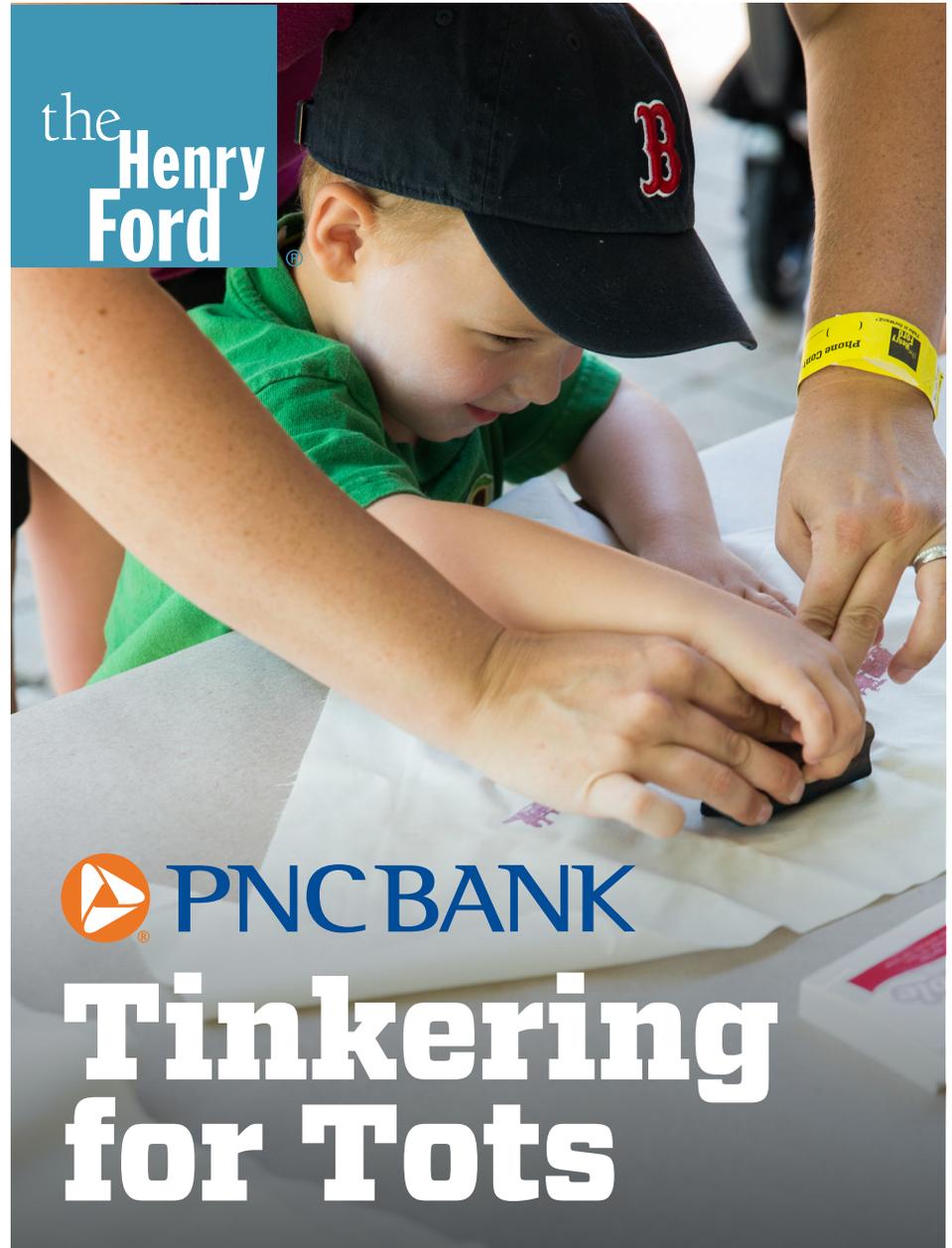
Join our storyteller, who will read stories to inspire your Tinkering Tot. Today's featured stories include *What Do You Do with an Idea?* by Kobi Yamada and *Nature's Day: Discover the World of Wonder on Your Doorstep* by Kay Maguire.

ARTIFACT OF THE DAY

4 Soybean Oil Extractor

Inside the Soybean Lab Agriculture Gallery is a rare device. It was created to squeeze the oil out of soybeans. The oil can then be used for lubrication, to be mixed with other ingredients to make paint and much more. It was part of Henry Ford's mission to find uses for products that farmers grew. Extracting the oil would make soybean plants useful and make money for the farmers who grew them. For many years, a bushel or so of soybeans went into making every Ford Model T car.

▶ Look for the corresponding activity numbers in your **welcome guide map**.



the Henry Ford

PNC BANK

Tinkering for Tots

▶ GREENFIELD VILLAGE®

August – October

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.

↓ AUGUST 13

Water and Rock

This month, we continue the Engineering 101 materials theme by taking a fresh look at two previously explored materials: **water and rock**. We will compare and contrast these two materials and find out how they are often combined.

HANDS-ON ACTIVITIES

Discover How These Materials Are Used

Explore these sites inside Greenfield Village to learn how water and rock are useful materials that help us work and provide power as well as fun.

31 *DT&M Roundhouse*: Steam-powered locomotives need rocks (coal) to create a fire to heat water. Boiling water makes steam that powers these mighty engines. Move full steam ahead to learn more about these materials.

11 *Loranger Gristmill*: Water running under the large wheel creates the power needed to turn rocks inside the gristmill that grind corn and other grains. Explore the wheel and then go inside to see the rocks. Also stop by the table outside the mill to try your hand at grinding with rock and explore the fun you can have with water.

99 *Crafting with Rock and Water*
Liberty Craftworks Store Porch

Discover the cool effect water has on rock as we let our artistic juices flow.

31 Inspiring Stories

In front of DT&M Roundhouse

Join our storyteller, who will read stories to inspire your Tinkering Tot. Today's featured stories include *Pop! A Book About Bubbles* by Kimberly Brubaker Bradley and *A Rock Can Be...* by Laura Purdie Salas.

ARTIFACT OF THE DAY

32 Railroad Water Tower

This large wooden tower holds the big supply of water needed to run our steam engines. The spout is lowered to fill the train's tanks with water, which is then brought to a boil by a fire created by burning coal. If you're lucky, you'll be able to watch the railroad operators take on water.

▶ Look for the corresponding activity numbers in your **welcome guide map**.

↓ SEPTEMBER 10

Clay and Metal

This month, we continue the Engineering 101 materials theme by taking a fresh look at two previously explored materials: **clay and metal**. We will compare and contrast these two materials and find out how they are often combined.

HANDS-ON ACTIVITIES

18 Discover How These Materials Are Used

Tin Shop

Visit the Tin Shop to see how metal and clay came together in an innovative way to fix a problem. While there, also discover why this "poor man's silver" is so useful.

36 Compare, Contrast, Combine

Village Pavilion

Explore why clay and metal are useful materials. Test their strengths and weaknesses and what they can make when combined.

36 Crafting with Clay and Metal

Village Pavilion

Create a handy craft by combining clay and metal.

36 Inspiring Stories

Outside Village Pavilion

Join our storyteller, who will read stories to inspire your Tinkering Tot. Today's featured stories include *Fix It, Sam* by Lori Ries and *The Most Magnificent Thing* by Ashley Spires.

ARTIFACT OF THE DAY

59 Menlo Park Carbonizing Furnaces

To make the tiny filaments that Thomas Edison was experimenting with to make a successful lightbulb, his workers used small furnaces to bake the materials that were first coated with carbon. These furnaces allowed Edison to create over a thousand different filaments before finally finding one that worked. Edison and his team never gave up. This was innovation in action!

▶ Look for the corresponding activity numbers in your **welcome guide map**.