

Little learners get hands on, minds on at Tinkering for Tots, a program designed for curious preschoolers to develop an innovative mindset and make connections through storytelling, play, artifact exploration and a take-home STEAM activity kit.

## What connections are we making?

### Highlighted Habit



#### LEARN FROM FAILURE

**Description:** Try again. What's another way to...? What can we do differently to make it work?

### Story

**Title:** *The Most Magnificent Thing*

**Author:** Ashley Spires

**Why we picked this book:** This story shows our young learners how we can deal with frustration when things don't work the way we want, or when we have trouble doing something. It shows how we try again, multiple times if necessary, and that each time is a chance to learn.

### Artifact Spotlight

**Name:** Dymaxion House

**Location:** Between *Your Place in Time* and *The Gallery* by General Motors

To learn more about the story behind this artifact, please see the artifact spotlight on Page 2.

### Open Exploration

**Description:** Practice learning from failure while tinkering with tools and materials.

**Skills your young learner is practicing:** Learning from failure, persistence, trying again.

### Questions to Ask Your Young Learner

What do you think would have happened if the girl in the story had given up on making her magnificent thing? What does it mean to learn from failure? What can you do when you are frustrated? What would be your most magnificent thing to make? How would you make it? What did you make while tinkering? Did it turn out like you wanted? Did you feel frustrated? What did you do when you felt like that? What could you do differently to try again?

### Take-Home Activity

**Title:** Inventor's Box

#### Materials:

- Washi tape
- Rubber bands
- Chenille sticks
- Toilet paper rolls
- Clothes pins
- Straws
- Wax yarn
- Popsicle sticks
- Glue dots



## Artifact Spotlight



**The Dymaxion House:** R. Buckminster Fuller thought this house, which he called Dymaxion House, was just what people wanted — a low-cost home that could be mass-produced, shipped from the factory to anywhere and not be too harmful to the environment. The word "Dymaxion" was coined by combining parts of three of Fuller's favorite words: DY (dynamic), MAX (maximum), and ION (tension). The house hangs on a central column, or mast (tension), so it is easy to put together and could be taken anywhere in its own metal tube. Fuller worked with an aircraft company because Dymaxion House and airplanes used similar materials.

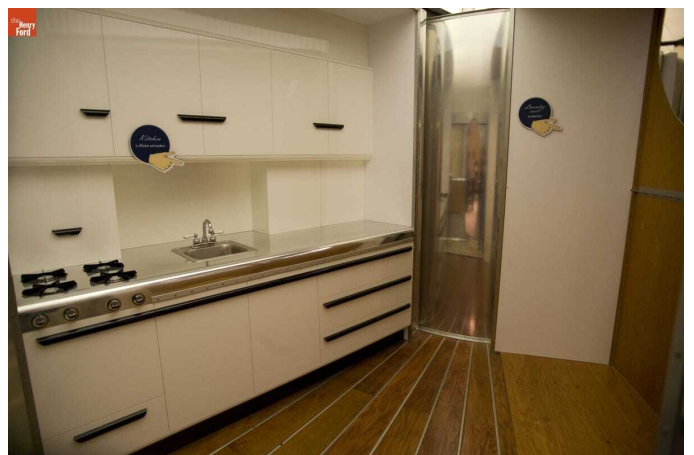


Only two prototypes of the round aluminum house were made. The 1,017-square-foot house has an entry, living/dining room, two bedrooms, kitchen and laundry. It was big enough for a family, small enough to be cozy, fun

to look at, and easy to clean. The outside is polished aluminum so doesn't need painting. The bathroom sprays itself down when you close the door and push a button. The kitchen has built-in appliances and includes a dishwasher plus a clothes washer and dryer. It uses accordion (folding) doors, rotating shelves instead of bedroom dressers, and a revolving shoe rack and closet with a tie and hat rack.



Dymaxion House's round shape means it uses fewer materials and loses less heat, but is very strong and can be easily moved to a different spot and put together by a few workers in just two days. The house does not sit on the ground. The entire house, including the floor, hangs from a steel central pole and is held down by anchors pounded deep into the earth. All the lights and heat in the house can be controlled from one central point.



# Take-Home Activity



## Inventor's Box Materials:

- Washi tape
- Rubber bands
- Pipe cleaners
- Toilet paper rolls
- Clothespins
- Straws
- Wax yarn
- Popsicle sticks
- Glue dots

## Directions:

Let your young learners make their own magnificent thing at home or in the classroom with the materials in their take-home inventor's box. They might make clothespin dolls, toilet paper roll cars, pipe cleaner bugs — anything their imaginations can dream up.

# Coloring Sheet

