



ADAPT Activities December 2018–March 2019

Innovative thinking helps us adapt to the world around us. Activities for the Adapt theme explore how we adapt to different challenges, environments, needs, and purposes and tweak existing inventions for more than one use. Visitors can also sketch and create their own inventions at our Hub space.

Spark!Lab activities are designed around common themes that connect to the National Museum of American History collections and exhibitions. Themes are developed broadly to incorporate a wide range of collections and will change every four months, ensuring that regular visitors have something new to explore.

CREATE AN ADAPTIVE VEHICLE

People with physical disabilities participate in many activities with adaptive devices. Adaptive device technology is used in cars and other vehicles for drivers who may not have full use of their arms or legs. Innovative thinking has led to game-changing adaptive technologies that help people move in cars or on their own.

Adapt a vehicle so that someone with a physical difference can drive it.

TWEAK A PROSTHETIC HAND

There are many reasons why someone might be without a hand or other limb. Some people are born without limbs, while others may lose them in accidents or while fighting in wars. Since the American Civil War, innovators in the United States have created workable limb replacements,

called prosthetics. In recent years, technologies like 3D printers and low-cost electronics have made prosthetics and other adaptive devices cheaper and more available.

Design and build a functional prosthetic hand.

DESIGN A PIECE OF FOLDING FURNITURE

More and more people began moving from larger homes in the country to smaller apartments in the city during the early 1900s. To help them adapt to smaller spaces, companies experimented with new designs and ideas for folding furniture.

What type of folding furniture would you create?

CREATE CLOTHING FOR EXPLORATION

As people throughout history have explored new frontiers, they have found ways to adapt their clothing for new environments. People need clothing that protects them in different places from different climates and terrain. Designing the right type of clothing lets us expand our horizons, on Earth and beyond.

Which materials will you use in your clothing? Where could you travel with the clothing you created?

ADAPT AN EXISTING INVENTION FOR A DIFFERENT USE

When people invent, they often improve existing ideas or objects. Sometimes invention and innovation involve using something in a different way than originally intended. An invention can also be made by combining materials that don't usually go together.

Consider how you might use an existing invention in a different way or combine existing inventions to create something new.

CREATE A MULTI-USE SPACE

A "flexible" space in a home, business, or museum can be easily adapted for different uses. Coulter Plaza, the center of 1 West next to Object Project, has many uses. It has seats for relaxing and chatting. It also has a hidden stage that makes a performance and demonstration space.

Invent a space that can be used in more than one way. What kind of flexible space will you create? How many different ways could you use your space?

DESIGN AN ANIMAL-INSPIRED INVENTION

Animals have an amazing ability to adapt. Exploring the animal kingdom can help an inventor create new, innovative ideas. Sometimes inventors create a robot with the ability of an animal, like a fish or dogs, to explore dangerous areas. Some inventors create inventions for an animal, like a saddle for riding a horse or toys to entertain an animal at the zoo.

Will your invention be inspired by an animal or created for an animal?