

Girl Scout Daisies

Mechanical Engineering: Model Car Design Challenge (Badge 3)

Step 1: Design and build model cars in the STEAM Center

- Before an engineer builds something, she thinks about the best way to do it. Engineers will brainstorm ideas about how to build their invention with the materials they have. Your challenge is to build a car that you can test drive on different surfaces to see how friction impacts your car's speed. Using materials from the Make-It Workshop and Art Studio, what are some different ways you can make a car to take home and test?

Automotive Engineering: Automotive Design (Badge 1)

Step 1: Choose special features for your vehicle in Future Play

- Vehicles are made up of lots of parts. Some parts are in every vehicle, like the engine and wheels. Other parts are special, just for that kind of vehicle. These parts are called design features. In Future Play, choose a vehicle paper, on the back brainstorm a list of special features your vehicle will include. This could be something simple like cup holders and racing stripes, or more complex like wings or doors that open by themselves.

Step 2: Sketch your vehicle in Future Play

- A creative designer comes up with ideas for vehicles and draws them. Flip over your vehicle paper and fill in the exterior of your vehicle! Want an extension, grab a blank piece of paper and sketch what the inside of your car would look like.

Step 3: Sculpt and share your vehicle in Future Play

- Making a model is an important part of designing a vehicle. Take your finished drawing, on the vehicle template, and scan your model so it can be printed and then folded into a 3D model. Place your paper face up in the scanning tray by the printer. Push the yellow button and wait for your model to come out of the printer. Take your paper to the table, cut, fold and glue your design! Share your plans and finished product with a friend or family member.

Toy Business Designer

Step 1: Come up with an idea for a toy in the Art Studio

- Think of a new toy you would like to play with and then design it. Or find a way to make your favorite toy better! Sketch out your idea using materials from the Art Studio. Make more than one drawing if you want to show the different ways your toy works.

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Step 2: Make your idea even better in the Art Studio

- Any idea can use improving or fixing! Entrepreneurs always want to improve their projects, so they ask other people for feedback. Share your idea with your friends or family. Invite them to tell you what they like about your idea and what they would change to make your toy better. Use the feedback to make changes to improve your toy design. Draw your new and improved design!

Outdoor Art Maker

Step 1: See the colors of nature in Mary Ann's Garden

- Have a color hunt! Go out to Mary Ann's Garden and have an adult set a timer for ten minutes. Try to find as many things in nature that match the colors that you are wearing. For example if you are wearing yellow socks and you see a yellow flower, that's one!

Step 2: Hear the sounds of nature in Nature Play, Mary Ann's Garden or Sunshine Classroom

- Search for sounds in nature. Visit the outdoor exhibits at The Magic House. Use your ears to hunt for as many sounds as you can from the list below. Listen carefully and circle the ones you hear.

Insects buzzing/humming, Car horn honking, Bird chirping, Dog barking, Leaves rustling, and squirrel or chipmunk chattering

Do you hear any other sounds?