



Automotive 1: Design



Badge Overview

Do you want to take a ride in your dream car? Before you can do that, you need to design it! Discover how to create vehicles by sketching and sculpting a model. When you've earned this badge, you'll know about innovation and market research. You'll know how to create criteria, sketch, and sculpt a vehicle.

Badge Components

1. Explore mobility across time

Women have been involved in transportation innovation since the invention of the wheel. In fact, many of the gadgets and gizmos in your car and on the road were first invented by women. Automotive history is filled with fascinating stories about women with big ideas and bad luck with patents. No matter how much they might have been overlooked in their time, their innovations and big ideas shape the way we drive to this day.

- Read the ['Women and the History of the Automobile' PDF](#) and create a timeline of women's input into the development of the automobile. You can refer to the ['Example timeline' PDF](#) to give you an idea of what a timeline looks like. Make sure you include the year, a picture and a little bit of information about what the nine women contributed to the development of the automobile.

2. Conduct automotive market research

Pose a question you have always wondered what the answer is. Find the answer by conducting a survey or making observations and collecting data.

- For example, what is the most common car color choice?
- What percent of vehicles are trucks?
- How many disabled parking spaces are there compared to the number of the regular parking spaces?
- What vehicles modifications can you identify e.g. wheelchair ramps, child safety features, etc. on vehicles you see?

3. Create your vehicle's design criteria

You are going to design a vehicle for someone with mobility problems. Use the ['Mobility-Friendly Car Accessories or Modifications' PDF](#) to give you some inspiration for what you would like to include in your car design. Maybe you know someone who has some of these accessories or modification in their car or you know someone that would benefit from some of them so you can design a vehicle for them.

- Write a list of your design criteria (a list of all the modifications you would like to include in your vehicle design).

4. Sketch a vehicle to meet your criteria

- Draw your vehicle, make sure you include all the modifications or accessories in your list.

5. Sculpt and share your vehicle

- Make a 3D model of your car using craft materials, clay, Play-Doh or paper and tape, etc.
- Show your vehicle to your family or sister Girl Scouts and explain to them the modifications you have added.

Materials

- [Women and the History of the Automobile PDF](#)
- [Example timeline PDF](#)
- [Mobility-Friendly Car Accessories or Modifications PDF](#)
- Paper
- Markers
- Materials to make a 3D model of a car e.g. clay, Play-Doh, paper, tape, clean recyclable material etc.

Florida Educational Standards

The content of all Girl Scout national proficiency Badges and Journeys have been correlated by grade level to national and state learning objectives.

[Click here](#) for more information on how Girl Scout Badge-work supports Florida's educational standards.



We love to see Girl Scouts in action. Snap a photo and send it to marcomm@gssef.org.

Include her name, troop# and the name of the badge she's working on and we'll feature her.

Finished with your badge? Now buy it for your Girl Scout Uniform. Order online at <https://www.girlscoutshop.com/SOUTHEAST-FLORIDA-COUNCIL> and we'll ship it for free.

.....
Questions? Contact customercare@gssef.org