

Girl Scout Brownies Badgework



STEM Career Exploration

Step 1: Explore your interests in the Art Studio

- Create a collage/drawing all about you! What do you like to do? What are your favorite subjects? Use the materials in the *Art Studio* to create your drawing. Think about words and pictures you can include to show others who you are!

Step 2: Discover the possibilities in the STEM Pathway

- All kinds of jobs, from coding video games to baking cakes to planting forests, use STEM! With your Interest Drawing in hand, visit the *STEM Pathway* to find some career possibilities. Use the screen titled “What does your future look like?” Answer a few simple questions about yourself to discover your dream STEM job.

Robotics: Programming Robots (Badge 1)

Step 2: Test your robot senses in the Five Senses Room

- Robots use their sensors to understand their surroundings. Explore how robots use sensors to collect information about the world around them. In the *Five Senses Room*, test your senses to determine what game balls are hidden in each of the boxes of the *Sports Ball Challenge*. For an additional challenge, try to identify the scents in the *Smell Boxes*.

Step 5: Code a robot in the Make-It Workshop

- Engineers program their robots to move, act, and understand. Now is your chance to code a robot device. In the *Connect-It* section of the *Make-It Workshop*, choose from *Botley* or *Code-and-Go Mouse* to learn simple coding. Need help? Ask a STEAM team member!

Robotics: Designing Robots (Badge 2)

Step 4: Create a prototype in the Make-It Workshop

- Engineers create prototypes, a way to show an idea to others or to test it out. Prototypes can be as simple as a drawing or can be created with common materials, such as cardboard, paper, and tape. Visit the *STEAM Center* and utilize the materials available to create a prototype of a robot you would like to create.

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Entomologist in Training

Step 1: Draw a butterfly poster in the STEAM Center

- Visit the *Science Lab* in our *STEAM Center* to find out more about butterflies! Explore the butterfly habitat, signage, and books to help you answer the “All About My Bug” questions: Where does your insect live? How long does it live? What does it eat? Who are its predators? Use the materials in the *Art Studio* to create a butterfly poster.

Step 2: Make a Spider in the Art Studio

- Visit the *STEAM Center* to create a spider. Use craft paper, cardboard, markers, or paint sticks to look like the body of a spider. Add eight eyes and eight legs to two body sections. Can you find a way to make your spider stand? Can you make a web for your spider?

Step 4: Explore bug homes in the Science Lab

- Some bugs, like caterpillars, sleep in a cocoon. Inside they transform into a moth or butterfly. Visit the *Science Lab* to inspect the butterfly habitat. Draw what you think it looks like inside of a cocoon.

Art and Design

Step 1: Explore Art and Design

- Where can you find art and design? Look throughout the museum. What mediums and styles can you find? Can you find a sculpture, painting or collage?

Step 2: Experiment with the Elements in the Art Studio

- Color, line, and texture are all different elements of art and design. Learn about these elements as you explore the *Art Studio*. Choose either color, line, or texture and use the available materials to create a work of art exploring that element.

Step 4: Make art about a subject that interests you

- The focus of your art is called the subject. It can be a person, object, or place. It can also be a feeling or idea! Use the available art materials to create a work of art with a subject that inspires you.

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Eco Friend

Step 2: Observe outdoor spaces in either Front Play Garden, Nature Play, or the Sunshine Classroom

- Tell a nature story. With some friends or an adult, visit one of The Magic House's outdoor exhibit spaces to look at different objects in nature. Find something you like and instead of disturbing nature by taking it home, tell a story about it. Be creative!

Outdoor Art Creator

Step 1: Find art ideas outdoors in either Front Play Garden, Nature Play, or the Sunshine Classroom

- Go on a nature detective walk. Visit The Magic House's outdoor spaces and see what natural objects you can find — don't collect anything, simply keep a list of what you observe: an animal, a plant, a tree with leaves, a tree with needles, an insect, a bird, a fallen leaf, a rock with an unusual shape, a pinecone or acorn, moss, a flower, or a bush.