girl scouts of the missouri heartland

Brownie
Digital Game Design

Age-level: Brownie
Pillar: STEM

Badge Description: Did you ever wonder how your favorite video game was created? Learn how people create new games—and find out how games can also help people to learn new skills and experience new things.

1. Discover how game design can be used for good.

    - Video games aren't always just for fun—they can make a real difference. Think about the games you play on a phone, computer or video game console. Do these games teach you new skills? Do you learn things about the world by playing these games? Can games make the world better? Think about what kind of problem you would want to solve with a video game.

2. Explore tools used to develop digital games.

    - Computers follow commands called algorithms. To practice creating an algorithm, complete the Patch Quilt Algorithm Activity or complete the activity online. Use a new numbered line for each row on your quilt. On each line, write the colors for each patch in the order, or sequence, you colored them, from left to right.

3. Plan a maze game.

    - Big ideas call for big plans! Start planning your own maze game by using the Design Process: ask, imagine, create, improve, and share. Ask yourself what kind of maze you would like to create, imagine what it would look like, create the maze using household objects, improve your maze after trying it out, and share your maze with your family!

4. Build, test, and improve your maze game using interaction.

    - Playtesting shows designers where they can make the game better. Every time they test and improve their game, they use iteration. Try to navigate through your maze using commands like left, right, and center. To practice iteration, have a family member or stuffed animal navigate through the maze using your commands, then add challenges!

4. Share your game with others.

    - How do you know if your maze works? Have a different family member try it! You can even introduce more challenges as they go through your maze.

Earned the badge? Purchase it here.