



Coding For Good – Digital Game Design – Brownie

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

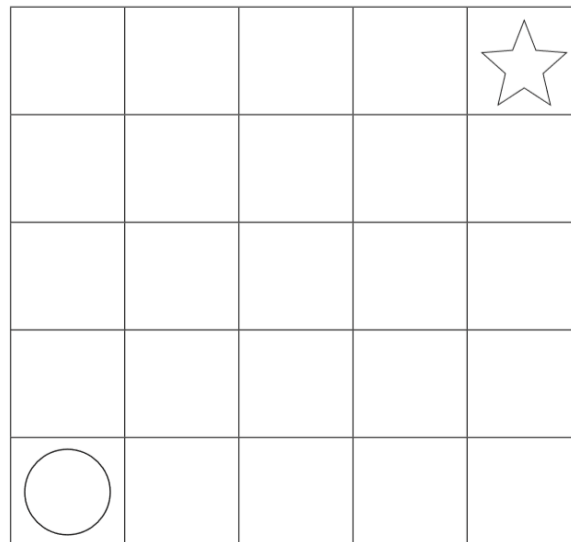
Think about the games you play on a phone, computer or video game console. Do these games teach you new skills? Do you learn things about the world by playing these games?

2. Explore tools used to develop digital games

Play a digital game on a phone, computer or video game console. How do you know how to play this game? What are the directions? Are there characters in the game? If so, what do they look like, what are their names? What is the goal of the game, and how do you reach it?

3. Plan a maze game

Use household objects (like pots and pans, blocks, furniture, stuffed animals, etc) to make a maze in an open space of your home. You can use blank pieces of printer paper as blank spaces in between obstacles. See the image below to plan out the maze (the circle is the beginning of the maze, and the star is the end). Pick your favorite stuffed animal or toy to move through the maze to get to a special prize: a tasty treat! Give your toy directions (see “Commands” below) to navigate through the maze. It’s OK if your toy gets lost. Help them find the way out!



Commands:

- ⇒ **Turn Right:** Turn to the right, do not take a step, stay in your square.
- ⇐ **Turn Left:** Turn to the left, do not take a step, stay in your square.
- ↪ **Jump:** Jump over an obstacle and land in the next square. Jumping is not allowed if it takes you off the grid.
- ↑ **Move Forward:** Take one step forward. Characters cannot step off the grid.

4. Build, test, and improve your maze game

Have a sibling, caregiver, or another stuffed animal try to navigate through your maze using the commands. If they have troubles, help them out. Try rearranging your maze to create new challenges. If your maze doesn't have any exits, or there's a dead end at every turn, no problem! Take a second look at your design, shift some obstacles around, and try it again.

In order to complete this badge, send a photo or short video of your girl doing Step 3 to ssmith@girlscoutsoaz.org

You can purchase Badges at our online store <https://www.girlscoutshop.com/SOUTHERN-ARIZONA-COUNCIL>