

Junior Digital Game Design



Age-level: Junior

Pillar: STEM

Badge Description: What makes your favorite video game fun? Have you ever wondered how the creators included all the different challenges and choices? They used algorithms and conditionals to tell the computer what to do. Create a game that is fun and helps solve a problem!

1. Discover how game design can be used for good.
 - Games can teach us new things and even help us see things we may never experience. We can find out about places, people, and situations we might not otherwise know about! Through video games, you can visit the International Space Station, dive to the deepest parts of the ocean, or visit ancient cities. What kind of game could you create to teach someone a new skill?
2. Explore tools used to develop digital games.
 - Conditionals are what game designers use to make an action happen after a specific action is made in the game and are used to make the game more exciting. Conditionals in games let players experience different things. Think about where there are conditionals and loops in your favorite video game. Then, brainstorm how you can add or adapt them for your game that will teach someone a new skill.
3. Plan a maze or game.
 - When you create a video game, you first need to decide what kind of game you want to make. Then, you plan, build, test, and improve it. When you're happy with the game you've created, you share it with others. These steps are parts of the game design process. Use this process to create your own maze or game with household objects.
4. Build, test, and improve your maze game using interaction.
 - Perseverance is when you keep working on a project, even though it's difficult. Each time you repeat steps in the design process is an iteration. Use the maze or game you planned and have it go through iterations. If something doesn't work in the game or maze, fix it! If something needs to be added, add it!
4. Share and improve your game or maze.
 - Game makers are always learning what works, what their players like, and making improvements. Share your maze or game with your family and keep on making improvements!

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