



Printable Course Overview

Course: Game Design: Coding Arcade

Grade Levels: 6-8

Time Required: 15x 1-hour class periods

Course Description

Students will learn the fundamentals of block-based and text-based coding as they design their own custom online arcade games. Through 15 lessons, students are introduced to game design essentials such as probability, level design, powerups, character customization, and more! Upon completion of the course, students will have designed real, playable, arcade games through Microsoft MakeCode Arcade of their own.

Required Materials

- Lesson Presentations, Lesson Plans, and Lesson Printables
- Pencils
- Paper
- Computers/tablets with internet access, access to Microsoft MakeCode Arcade
- (Optional) KittenBot Meowbit

Standards Alignment

All lessons in this course are aligned to and/or support education standards from the following organizations: National Career Clusters Framework, Common Core Technical Core, NGSS, ISTE, and relevant state standards from Iowa, Nevada, Connecticut, Kentucky, Mississippi, Illinois, Florida, Texas, New

York, and California. Review the scope and sequence document or specific lesson plans for a complete list of standards covered in each lesson.

Curriculum Overview

Lesson Title	Technology Required
1. Microsoft MakeCode Arcade Introduction	Device with access to Microsoft MakeCode Arcade
2. Pac-Man Returns	Device with access to Microsoft MakeCode Arcade
3. Asteroid Attack!	Device with access to Microsoft MakeCode Arcade
4. Enemy Evasion	Device with access to Microsoft MakeCode Arcade
5. Maze Heist Manipulation	Device with access to Microsoft MakeCode Arcade
6. Race Against the Clock	Device with access to Microsoft MakeCode Arcade
7. Adventure in Backgrounds	Device with access to Microsoft MakeCode Arcade
8. Jump to the Rescue	Device with access to Microsoft MakeCode Arcade
9. More Players, More Fun	Device with access to Microsoft MakeCode Arcade
10. Multilevel Games in MakeCode Arcade	Device with access to Microsoft MakeCode Arcade
11. Design for a Client	Device with access to Microsoft MakeCode Arcade
12. Redesign and Recreate	Device with access to Microsoft MakeCode Arcade
13. Playtesting and User Feedback	Device with access to Microsoft MakeCode Arcade

14. Multilevel Platformer Game Design	Device with access to Microsoft MakeCode Arcade
15. Multilevel Platformer Game Test	Device with access to Microsoft MakeCode Arcade