



## **CODING AND VIDEO GAME DESIGN (mini course)**

Wednesdays, January 26-March 9 (no class Feb 23; 6 weeks)

9:30am-11:00am

Ages 10-14

Students learn the basics of coding and computational thinking as kids design and create custom video games. Students practice keyboarding, learn basic coding commands, understand the importance of syntax in making the program properly execute, learn to alter the code to create their own custom program, and troubleshoot **when it does not work**. This is not a drag and drop coding course, and is designed for students with very little to no programming command experience. Students must bring their own tablet or laptop (a physical keyboard is best) that can access [www.typingclub.com](http://www.typingclub.com) and [www.bitsbox.com](http://www.bitsbox.com). All lab costs are included in registration fee.

Instructor: Tonya Shearer, PhD

Location: STEM Lab (suite 21)

Course fee: \$125

10% sibling discount

### **LAB SCHEDULE:**

#### **Coding Basics** - Wednesday, January 26

Students are introduced coding language and syntax as they create code for their own custom memes they can share.

#### **Interactive Commands** - Wednesday, February 2

We learn basic functions to make game images change and move as we customize our interactive game apps.

#### **Loop Functions** - Wednesday, February 9

Kids learn about loop functions and conditional statement to create a more complex game design, then code several games that use these functions.

#### **Scoring Functions** - Wednesday, February 16

We add a counting function to our game design so students can create games that keep score.



### **Chickens vs Zombies Game** - Wednesday, March 2

We study the code of a classic interactive game we can customize and share with friends.

### **Game Sharing** - Wednesday, March 9

Kids use the commands and functions they have learned to design and code their own custom game and share it with classmates and friends.

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