

Week 3 Lesson 2

1. Mastery Skills (at my school it is mastery based) :

- I can solve problems and build software using computational thinking principles.
- I can solve problems and build software using programming principles.

2. Standards

Abstraction and Decomposition 9-12.CT.4 Implement a program using a combination of student-defined and third-party functions to organize the computation.

Clarifying Statement The focus is on having students think about how to decompose a programming problem into functions and procedures, including working around the constraints imposed by specific functions or features provided in a library.

3. Learning Objective(s)

- I will be able to draw and animate a bouncing ball within a border using Canvas.

4. Assessment(s):

- Students will draw a border with a moving ball using Canvas.
- Students will have to draw the ball bouncing off the edges of the border in Canvas.

5. Setup and Resources:

- JavaScript for Kids (book)
- Individual computers
- Visual Studio Code
- [presentation](#)

6. Procedure: Learning Activities/Tasks

Lesson section / Time allotted	<u>Teacher(s)</u>	<u>Students</u>	<u>Differentiation</u> (Strategies/Groups/Scaffolds)
Do Now/ Warm-Up (10 min)	Who killed Mrs. Smith. Viral TikTok Challenge		
Mini Lesson (10 min)	Ball constructor and using the setInterval Method		
Practice / Application (20 min)	Can you bounce the ball of the edge once it hits it?		
Exit Ticket (5 min)	What happens when the xSpeed and ySpeed are negative?		