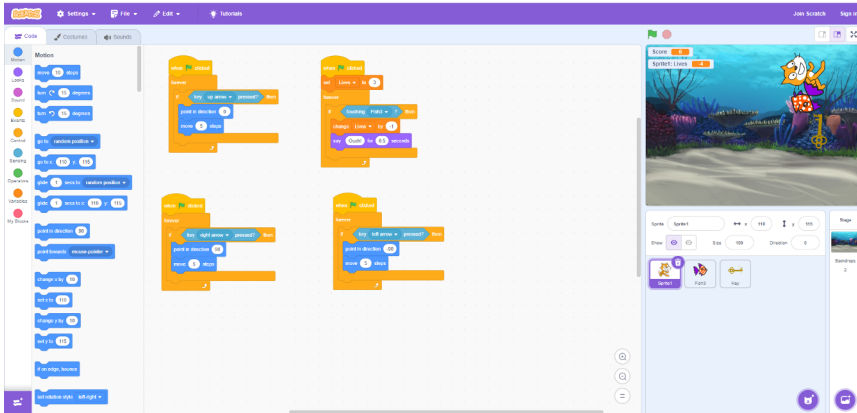




“Whatever you do, work at it with all your heart”

Colossians 3:23



Coding
Year 4
Spring 1 & 2

Key Knowledge

To know that:

- ⇒ To debug is to look for problems in the code and solve them.
- ⇒ A variable is something in code that can change.
- ⇒ Using the word ‘when’, can make events occur in response to other actions.
- ⇒ Know the difference between bots and people online
- ⇒ Breaking up problems into smaller parts, makes it easier to solve
- ⇒ Watching a program with repetition and conditionals allows me to spot if and where it goes wrong and debug it.
- ⇒ There are ways to use technology in a healthy way.

Key Vocabulary:

- ⇒ Algorithm - A set of instructions
- ⇒ Program - a set of instructions that a computer can follow
- ⇒ Bug - An error in a program that prevents the program from running as expected.
- ⇒ Debugging - Finding and fixing errors in programs.
- ⇒ Loop - The action of doing something over and over again.
- ⇒ Programming - The art of creating a program.
- ⇒ Event - An event is an action that causes something to happen.
- ⇒ Variable - a value that can change in a program
- ⇒ Conditionals - you can give a program a choice of outcome. For example, using if / when
- ⇒ Sprite - A graphic on the screen with a location, size and appearance.

The screenshot displays the Scratch workspace for a project titled "Lesson 6: Events in Bounce". The interface includes a top toolbar with "Share" and "Remix" buttons, a "Sign in" button, and a "Version History" link. The main workspace is divided into several sections:

- Stage:** A basketball court scene with a hoop at the top and a ball on the floor.
- Instructions:** A text area containing the following text: "There is now a hoop at the top. Attach the score point block to the when ball in goal event and the score opponent point block to the when ball misses hand event to make a game. See how many points you can score before your opponent scores twice."
- Blocks:** A palette of Scratch blocks including "bounce ball", "score point", "score opponent point", "play (bounce) sound", "move left", "move right", "comment", "when run", "when left arrow", "when right arrow", "when ball hits hand", "when ball hits wall", "when ball misses hand", and "when ball in goal".
- Workspace:** A central area where the blocks are being assembled into a script. The visible script includes: "when run" block, followed by "when left arrow" and "when right arrow" blocks, each containing "move left" and "move right" blocks. Below these are "when ball hits hand" and "when ball hits wall" blocks, each containing a "bounce ball" block. At the bottom are "when ball misses hand" and "when ball in goal" blocks, each containing a "score opponent point" and "score point" block respectively.