

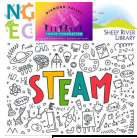


## Next Gen EduCare & DVYF – STEAM After School Club descriptors

### **GRADES 2-5: POKÉMON CODERS WITH SCRATCH JR**

- **Description:** Gotta catch em all, gotta code them all! Students will create and code their favourite Pokémon while learning about the science behind their powers. Becoming a master Pokémon now also means becoming a STEAM expert!
- **Goals:** Students will learn basic block coding in Scratch and the basics of science/engineering focused on Pokémon powers (electricity, hydraulics, gravity, etc.).
- **Learning objectives:**
  - Learn basic block coding functions such as loops, conditional statements, messages, movement, looks and sounds.
  - Understand the basics of circuits and how they work.
  - Appreciate basic image and sound editing as well as supervised Artificial Intelligence (AI) use for a story book creation.
- **Technology used:** Scratch, MakeyMakey, Laptops, AI text and image generation.
- **Summarized curricula:**

Club lesson	Theme/Focus
1	<b>Introduction to Scratch Layout and user interface</b>  Children will learn the basics of Scratch User interface while learning where to go when they need to add sounds, get sprites, code, etc.
2	<b>Introduction to Sprites, Sounds and Backdrop editing</b>  Children will try to edit images and sounds on Scratch to further customize their project.



3	<p>Project #1 – Simple story (movement, looks and sounds)</p> <p>Children will create their first project with a Sprite that moves and speaks.</p>
4	<p>Project #2 – Loops</p> <p>Children will learn how to use loops to avoid repetitive codes.</p>
5	<p>Project #3 – Messages</p> <p>Children will learn about messages – a way that codes can communicate with each other.</p>
6	<p>Project #4 - Conditional Statements</p> <p>Children will learn about conditional statements – codes that only activate once specific conditions are met.</p>
7	<p>Introduction to MakeyMakey</p> <p>Makeymakey is a circuit board that can turn anything into a key. Children will learn basics of circuitry while plugging a makeymakey to Scratch.</p>
8	<p>Game Development #1 – Mixing all codes</p> <p>Part 1. A full project where children will create a simple arcade-like game.</p>
9	<p>Game Development #2 – Mixing all codes</p> <p>Part 2. Children will finish their arcade game project and plug it with a makeymakey.</p>
10	<p>Game Development #3 – Mixing Scratch and MakeyMakey</p> <p>Children will create a arcade machine made of carboard while connecting their game and a makeymakey to their creation.</p>