# Session 1 Remix by J.B. Ross-Kleinmann

## Session #1a

### Session description

In this session, students are introduced to computational creation with the Scratch-programming environment by viewing an introductory video and engaging in exploratory, hands-on experiences.

### Objectives

The students will be able to…

* Explore and make a connection between Lego bricks and Scratch blocks
* Open the Scratch program and make a sprite move
* Explain/demonstrate how to start a Scratch project

### Session activities summary

* Introduce the concept of computational creation and the Scratch environment
* Explore the Scratch interface

### Resources

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| * Lego bricks placed in a mystery box or bag * Timer or Online stopwatch | * Scratch overview video  http://vimeo.com/29457909 * Resources library items (*Scratch cards, etc.*) |

### Session description

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| *~Min.* | *Activities* |
| 15-20 | *Connecting: Lego bricks and Scratch blocks*   * Collaboration   + In small groups based on class size, give students a closed mystery bag or box of Lego bricks and 6 minutes to explore and discuss what’s in the bag/box and different ways the items can be used * Chart and discuss students’ comments * Explain that over the next several sessions students will be creating with the Scratch programming language which is similar to snapping Lego bricks together to create * Show the Scratch overview video * Demonstrate Scratch (sometimes I direct a student helper) using the following suggestions   + You build projects by snapping blocks together, just as you can build things in the physical world by snapping LEGO bricks together.   + There are more than 100 blocks in 8 different categories.   + As a small example, let’s make the cat do a dance.   + Start by dragging out the “move 10 steps” block from the “Motion” blocks palette to the scripting area. Every time you click on the block the cat moves a distance of 10. You can change the number to make the cat move a greater or smaller distance.   + From the “Sound” palette, drag out the “play drum” block. Click on the block to hear its drum sound. Drag and snap the “play drum” block below the “move“ block. When you click on this stack of two blocks, the cat will move and then play the drum sound.   + Copy this stack of blocks (either using the Duplicate toolbar item or by right-clicking the stack and selecting “duplicate”) and snap the copy to the already-placed blocks. Change the second “move” block to -10 steps, so the cat moves backward. Every time the stack of four blocks is clicked, the cat does a little dance forward and back.   + Go to the “Control” blocks palette and grab the “repeat” block. Wrap the “repeat” block around the other blocks in the scripting area. Now when you click on the stack, the cat dances forward and back 10 times.   + Finally, drag the “when Sprite clicked” block and snap it to the top of the stack. Click on the cat (instead of the blocks stack) to make the cat dance. |
| 10 - 30 | *Exploring: Something surprising*   * Give students time to explore the Scratch interface in an open-ended way. One prompt is: “You have \_\_\_ minutes to make something surprising happen to a sprite.” Students are encouraged to work together, ask each other for help, and share. |
| 10 | *Reflecting: Our discoveries*   * Ask for 3 or 4 volunteers to share with the entire group *one thing* that they discovered. * Optionally, after the volunteers have shared, offer several challenges to the students:   + Did anyone figure out how to add sound?   + Did anyone figure out how to change the background?   + Did anyone figure out how to access the help screens for particular blocks? |

### Notes

A major goal of this session is to establish a culture of fearlessness, exploration, and peer collaboration. It is expected that students (and their teachers!) will not know everything ahead of time – and the environment becomes a space where everyone is learning together.

Session 1a Remix: Snapshots

