## Coding Lesson 2 - Data Types & Calculations

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| Context of the Activity | | | | | | | |
| **The Big Idea**: Learning the foundations of coding - specifically the basic types of data and how to do number calculations | | | | | | | |
| Prerequisite Knowledge and Skills:   * An account on Scratch <https://scratch.mit.edu> * Practice Exercises | | | | | | Connections to SOLs:  CS K.1-2 CS 3.1 - 3  CS 1.1-3 CS 4.1 - 3  CS 2.1-3 CS 5.1 - 3 | |
| Materials | | | | | | | |
| * Slides - <http://bit.ly/2Hma8Na> | | | | | * Copy of the Tools of Programming <http://bit.ly/csTools> | | |
| Lesson Structure and Activities | | | | | | | |
| **Warm Up *[10 min]*** :Opener:   * Have teachers log into their Scratch accounts * Open the starter program: <https://scratch.mit.edu/projects/227504750/>   + Run the program by clicking the  icon   + Change the program: follow the steps in the slides | | | | | | | |
| **Launch (Engage) *[10min]*** :Teacher Directed Instruction:   * Define - output (see slides)   + Prompt - what examples of output did we see in this program? * Lab lecture - see slides - walk the teacher through using input and variables | | | | | | | |
| **Explore *[20min]*** :Joint/Guided Practice | Student Practice:   * Do practice exercises - encourage folks to pick their level -  *mild, medium or spicy* * Link: <http://bit.ly/2Hma8Na> | | | | | | | |
| **Summarize *[15min]*** :Debrief :   * Journal: Besides math, how could you connect number calculations in Scratch to the core subjects? * Think - pair - share discussion | | | | | | | |