

Coding Lesson 2 - Data Types & Calculations

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: <ul style="list-style-type: none"> An account on Scratch https://scratch.mit.edu Practice Exercises 	Connections to SOLs: <table> <tr> <td>CS K.1-2</td><td>CS 3.1 - 3</td></tr> <tr> <td>CS 1.1-3</td><td>CS 4.1 - 3</td></tr> <tr> <td>CS 2.1-3</td><td>CS 5.1 - 3</td></tr> </table>	CS K.1-2	CS 3.1 - 3	CS 1.1-3	CS 4.1 - 3	CS 2.1-3	CS 5.1 - 3
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							
<ul style="list-style-type: none"> Slides - http://bit.ly/2Hma8Na 	<ul style="list-style-type: none"> Copy of the Tools of Programming http://bit.ly/csTools 						
Lesson Structure and Activities							
Warm Up [10 min] :Opener: <ul style="list-style-type: none"> Have teachers log into their Scratch accounts Open the starter program: https://scratch.mit.edu/projects/227504750/ <ul style="list-style-type: none"> Run the program by clicking the  icon Change the program: follow the steps in the slides 							
Launch (Engage) [10min] :Teacher Directed Instruction: <ul style="list-style-type: none"> Define - output (see slides) <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> Do practice exercises - encourage folks to pick their level - <i>mild, medium or spicy</i> Link: http://bit.ly/2Hma8Na 							
Summarize [15min] :Debrief : <ul style="list-style-type: none"> Journal: Besides math, how could you connect number calculations in Scratch to the core subjects? Think - pair - share discussion 							