Unplugged K - 8 Computer Science Enrichment Activities

Week 5 | *Variables* | [K-2 Link to files](#) [3-8 Link to files](#)

Big Idea: Computers use variables to store information that programs and applications use in order to do what we want them to. Programs use variables to store information such as the size, color, and location of objects, as well as count iteration of loops in a program. Our computational thinking concept is abstraction: removing distracting details and using a symbol or label to represent an idea. In this activity we will use variables to store information for our mad libs. Have fun!

Instructions: Read the directions for your grade level. It explains how many minutes per day you should complete Computer Science work for your grade level, along with the suggested computer websites on Ms. Sisney's class website. Click the **link to the files** above for your assignments. Make a copy of the files in order to type, write, or draw on the documents.

K - 2
Time: 30 - 45 minutes
    ● **MWF |** 10 minutes per day
    ● **T/Th |** 15 minutes per day
    ● **1-day |** 30 minute block
Modifications: Students can draw (rather than write) in the variables.
	Standards:
	CSTA
	    1A-AP-09 | Model the way programs store and manipulate data by using numbers or other symbols to represent information.
	Common Core English Language Arts
	    K | *Goal 4* | Craft and Structure.
	    1 - 2 | *CCSS.ELA-LITERACY.CCRA.R.4* | Craft and Structure.

3 - 5
Time: 60 - 75 minutes
    ● **MWF** | 20 minutes per day
    ● **T/Th** | 30 minutes per day
    ● **1-day** | 60 minute block
Modifications: Differentiate by changing the length of the stories that students create.
	Standards:
	CSTA
	    1B-AP-09 | Create programs that use variables to store and modify data.
	Common Core English Language Arts
	    CCSS.ELA-LITERACY.CCRA.R.4 | Craft and Structure.

6 - 8	Standards:

Time: 90 minutes
    ● **MWF** | 30 minutes per day.
    ● **T/Th** | 45 minutes per day.
    ● **1-day** | 90 minute block
Modifications: Differentiate by changing length of the stories that students create and the parts of speech that they must use as the variable.
	CSTA
	    2-AP-11| Create clearly named variables that represent different data types and perform operations on their values.
	Common Core English Language Arts
	    CCSS.ELA-LITERACY.CCRA.R.4 | Craft and Structure.