11/18/13 Hi everyone in the Coding course! This is our final lesson and final week. I know many of you are "playing catchup" so I am going to feature one fascinating topic that you can read through and enjoy at your leisure whether this week or after this week is over. There is no new program to write so hopefully you can "end strong" and finish up the items from the last week or two by Friday of this week when we officially end.

Only Required Work of the Week

In our final week, I would like you to go through our WIKI one more time at tinyurl.com/sconlinec and
a) see if you can fill in several of the vocab words that have not yet been described
b) read through the Columbus Day projects and partner writeups; please add comments with your name, creating a nice fabric of connections amongst you

 Bridgid - I am going to work with a small group of 4th grade students with Hopscotch since they have easy access to iPads in their classrooms.

 Zhanna - I am trying to bring it to the 3d grade where the students do not know much about scratch.

Team Collaboration -- Bridgid and Zhanna -- The Ballad of Quood and The Melancholy Moon -- "we did not think about scratch in terms of storytelling and with this project we saw how wonderfully engaging a story can be presented, sort of like a movie."

 Bryan - Scratch user “yarayara” (one of my students) and I have already taught Scratch to a few other students in my class.

 Ruth - I am going to start teaching my 4th grade students (all girls) how to use Scratch.

Team Collaboration -- Bryan and Ruth -- Pixel Art Seasons -- We were very impressed with the fact that the movable sprite changes direction (turns his head from left to route) and the jumping is pretty awesome.

 Jessica - Students in grades 1-4 will participate in Hour of Code, a program sponsored during Computer Science week, December 9-13.

 Matt - I will introduce Scratch to my 5th grade students in December.

 Maureen- I have decided to use Kodable (which I was introduced to via this Scratch class) with my K classes this winter.

Team Collaboration -- Jessica, Math and Maureen -- Ghostly Spot the Difference This project is remarkable for the number of sprites programmed - 65 in all. It is a game that looks very simple to play but it is challenging to find the 8th difference in all the 3 levels

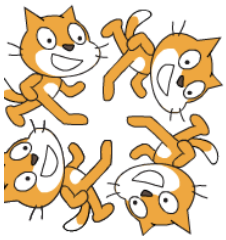
Here is Lesson 9
We begin the STAMP command that a few of you have seen but up until now it has not served any real purpose. What STAMP does is to take the current costume at that moment and paints it onto screen at that position.

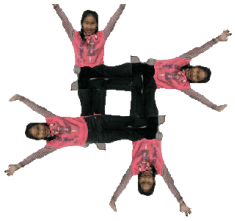
So consider this program 9.5 (shared program)

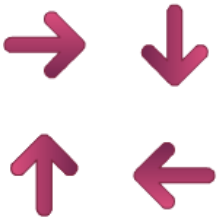
What does it do? Yes, it draws a square but it "stamps the costume" once at each corner. If the cursor is a * or an arrow or a cat or a person, here is what you get.

* *

* *





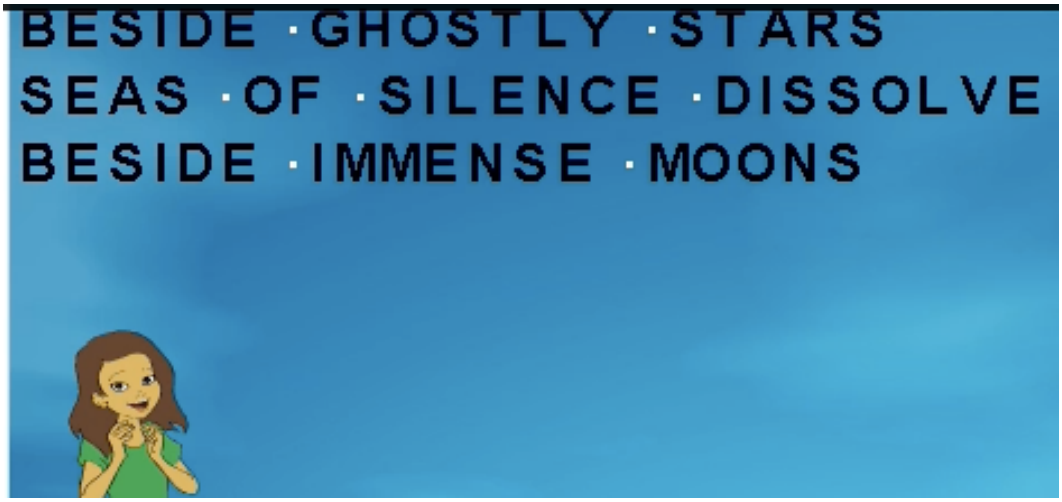


Got it?

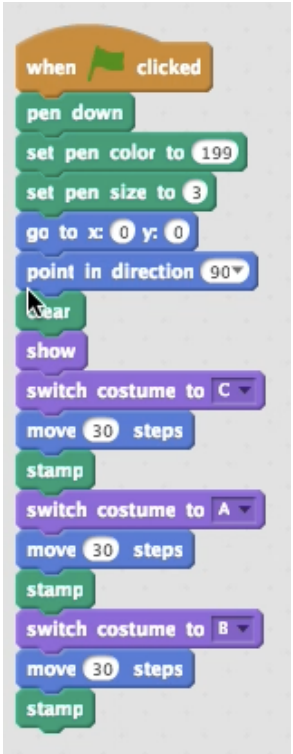
just takes the current costume and "stamps it" on the screen.

This leads us to the very clever program written by one Scratch programmer who uses STAMP to accomplish something I have been wanting to do for weeks -- write text onto the background! Here is the 25 minute video lesson that takes you thoroughly through all the steps -- http://youtu.be/FpeB5O7UjWU -- it does take a lot of time dissect and explain the code in a program.

I have used the Haiku program (Jessica's version) as the demo model to work with. I hope you will find it as cool as I do that you can now write on the screen and achieve this. The programmer who created this code is MEGADRATS and he or she uses 26 costumes and the STAMP command so that the poem is *stamped* onto the screen!



Check out this intro program that I wrote; it is much more basic than the one from megadrats -- Lesson 9.3 Putting Text onto the Background.

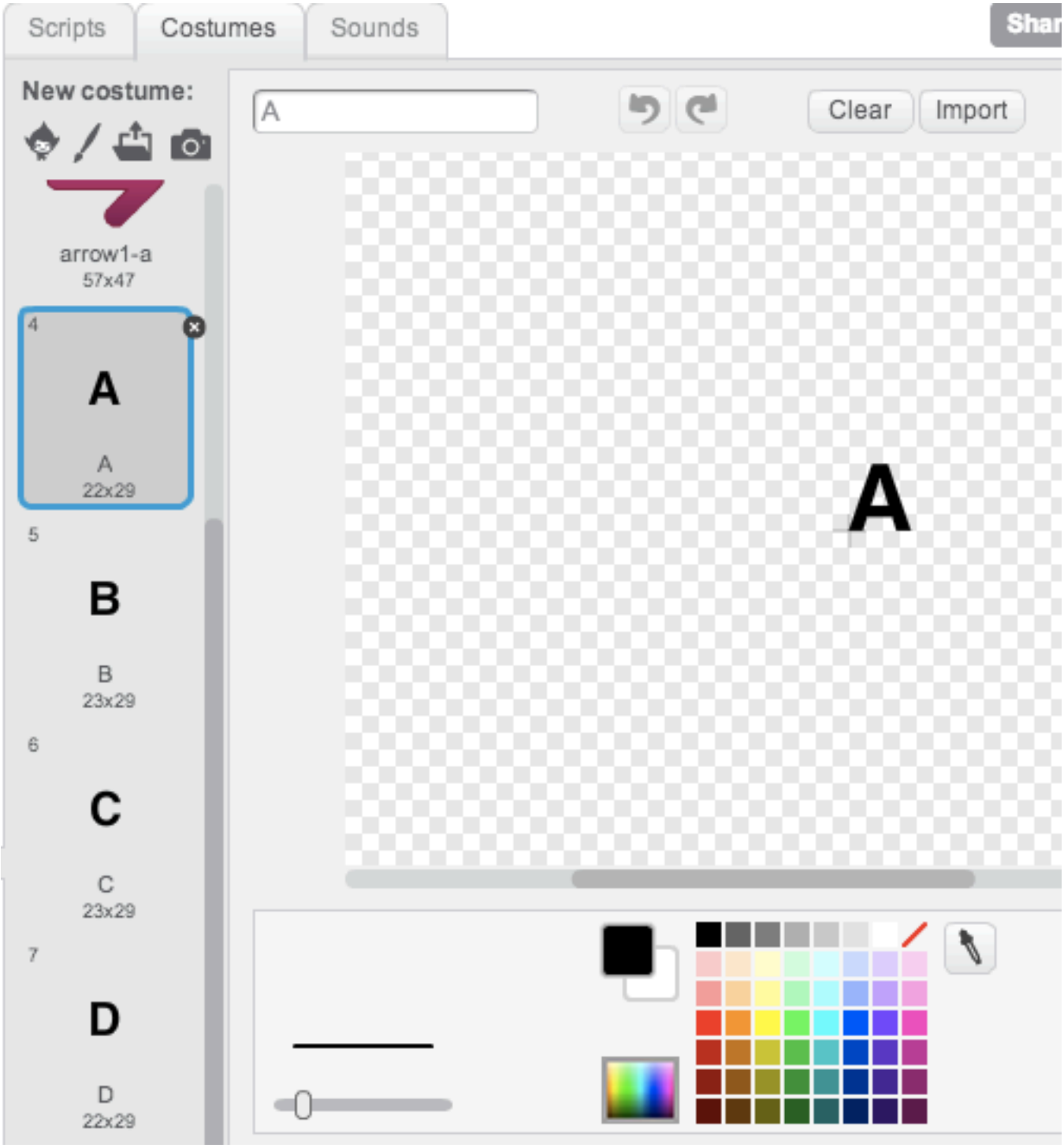


<------ the C costume is just the letter C which we then STAMP onto the screen!

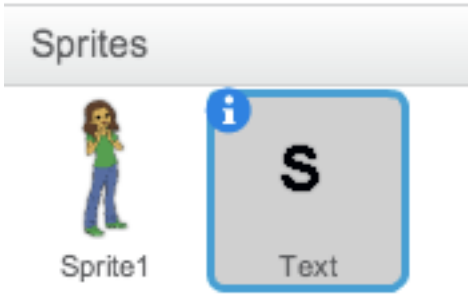
We then MOVE 30 pixels and then STAMP an A

Then we STAMP a B and so it looks like CAB to the user!

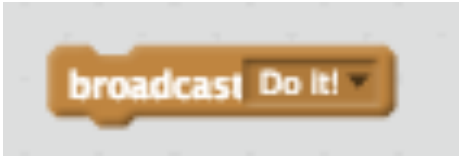
Note that the costumes for this script are just single letters on each costume.
The beauty of this approach (thanks, Megadrats) is using the STAMP command!



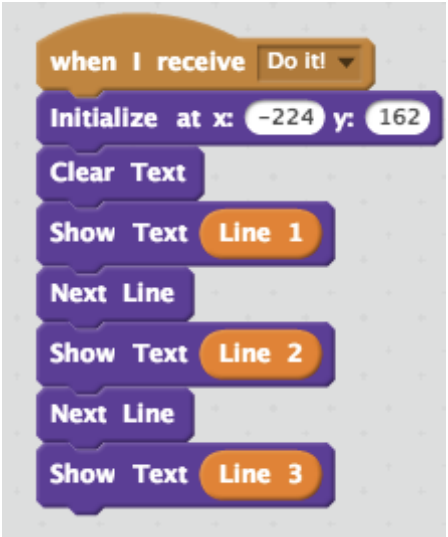
Here are the two Sprites used in this program
Sample 9.2 - Haiku Poem - Text onto Costume



Sprite1 is Jessica's Haiku program but it ends with the BROADCAST command that I added called Do It!

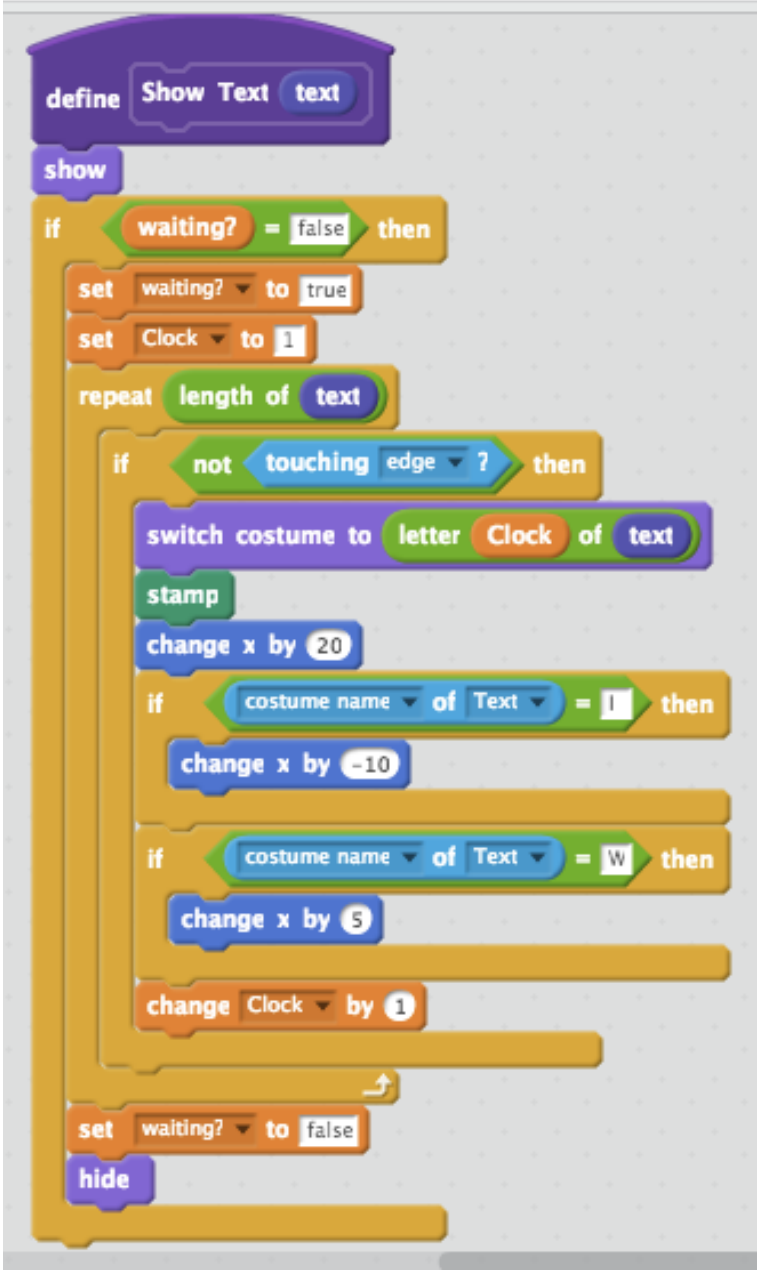


This corresponds to a script in the "S" Sprite program below. This program uses the construction of Megadrats who makes the work available to all of us and encourages us to use it. The video will show you step by step exactly how the BLOCKS called NEXT LINE (go to next line) and SHOW TEXT (type this line onto the background) work.



The INITIALIZE block by Megadrats specifies the location to begin the typing.

Here is the most important script from Megadrafts. The variable TEXT is the stuff to be printed on the screen. Notice the purple command to SWITCH THE COSTUME. What is it switching to? If the word TEXT is CAB, then it switches to Costume C and stamps, then it switches to Costume A and stamps and so on.



I was unable to figure out the significance of the flag called WAITING? Maybe you can help me make sense of that one. However, the reason for the IF THEN statements has to do with the width of I (narrow letter) and W (wide letter) so Megadrats is adjusting the spacing accordingly.

The program from Megadrats is now in my library as
Make Text in your Games! (Custom Blocks) remix

Take it and put it in your library and in your backpack.
As an optional assignment if you want one, it would be to use the Megadrats program as part of one of your programs.

I will end with a few interesting articles and videos on coding.

Tips to get your Kids Excited about Coding
http://thejournal.com/articles/2013/10/23/6-tips-to-get-your-kids-excited-about-coding.aspx?=THE21

Code: The New Literacy
http://www.youtube.com/watch?v=MwLXrN0Yguk

What Most Schools Don't Teach
http://www.youtube.com/watch?v=nKIu9yen5nc

T H E E N D

Be well everyone and hope you stay in touch. Teaching you and getting to know all of you has been a real joy. I wish you the best of success with your computer usage and your careers. Even though our 30 minute phone sessions/teaching sessions end this Friday 11/22, if I can help you at some point in the next 33 years by email or a 5 minute phone call, I would be glad to! Be well, everyone! Maybe one day, I will offer a Scratch 2 course.

Steve