

This exercise lets you choose a color scheme and determine the percentage of each color in a somewhat random way. You will pick colors from a picture, assign them numbers according to a word choice with letters assigned a numerical value. The numerical assignment is meant to be a starting point, you can always change the word, or just play with the proportions.

Materials needed:

- Color Picture
- Embroidery floss, colored thread, yarn (lots of colors) or use colored pencils
- Tape to secure ends
- Index cards cut in half, lengthwise (ending up with two 1.5" strips) or any other card stock cut into 1.5 " or 2" widths.

Exercise Steps

1. Take a look at the picture and pick out the colors you want to use. Pay attention to value, saturation, and hue.
2. Match the embroidery floss to the colors in the photo and set aside.
3. Assign numbers to colors - either in numerical order (ordinal) or use a **Fibonacci sequence** (defined below).
4. Create a grid as follows:

This is a table I built from a National Geographic photo of starfish.

Fibonacci	Ordinal	Color	Alphabet				
1	1	Violet (V)	A	G	M	S	Y
2	2	Dark Orange (DO)	B	H	N	T	Z
3	3	Light Orange (LO)	C	I	O	U	
5	4	Green (G)	D	J	P	V	
8	5	Dark Grey (DG)	E	K	Q	W	
12	6	Light Grey (LG)	F	L	R	X	

5. Pick a short phrase, or use your name.

Second table from the photo (sea star fish: Note that the green is not included in the phrase. I substituted the green for one of the light greys and changed the number of wraps to five)

Phrase	S	E	A	S	T	A	R	F	I	S	H
Color/Letter	V	DG	V	V	DO	V	LG	LG/G	LO	V	DO
Ordinal Number of Wraps	1	5	1	1	2	1	6	6	3	1	2
Fibonacci Number of Wraps	1	8	1	1	8	1	12	12	3	1	2

6. The numbers will determine the number of wraps for each color. Wrap the colors around one of the card pieces in order of the words, with the number (ordinal or Fibonacci) assigning the count of wraps for each color. Butt the colors up next to each other. Repeat the wrapping sequence at least twice. (If using colored pencils, draw the designated number of lines for each color).
7. See photo of my wrapped card. I substituted green for one of the light greys, Changing the number of wraps to five; repeating the pattern twice from left to right. I then separated the dark shades with a single wrap of light orange to create more contrast.
8. Decide which colors you want as focus, accent and background. You may wish to refer back to Kestrel Michaud's presentation in Unit 2 to help determine the percentage of each color to use. Remember, this exercise is a starting point. Play with the result until you feel it is balanced.
9. Self Evaluation
- What do you think of the color combination?
 - Are you happy with the proportions of each color?
 - Did you change the original? If so, how much?
 - Bring your work (either just the cards or a small piece made of the combination) to the discussion on Friday, February 26 to discuss the unit and this exercise.

The **Fibonacci sequence** is one of the most famous formulas in mathematics. Each number in the sequence is the sum of the two numbers that precede it. So, the sequence goes: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, and so on.