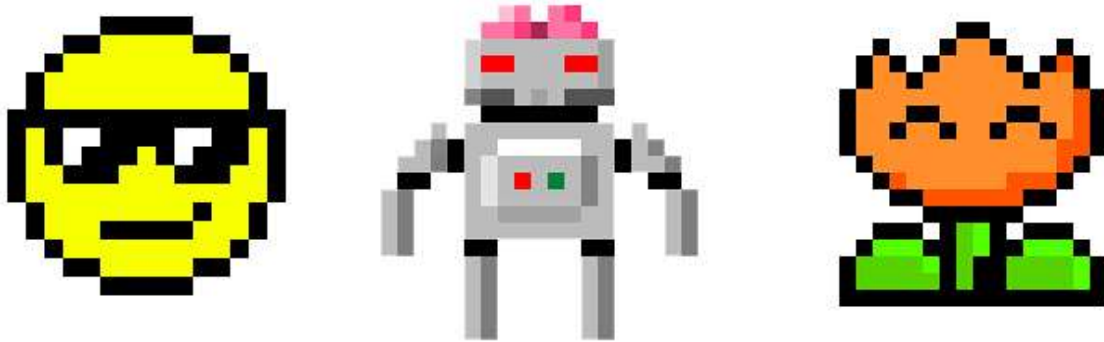


PART ONE: Create Your Art

Consider an image you could make by pixelating. See some images below for examples:



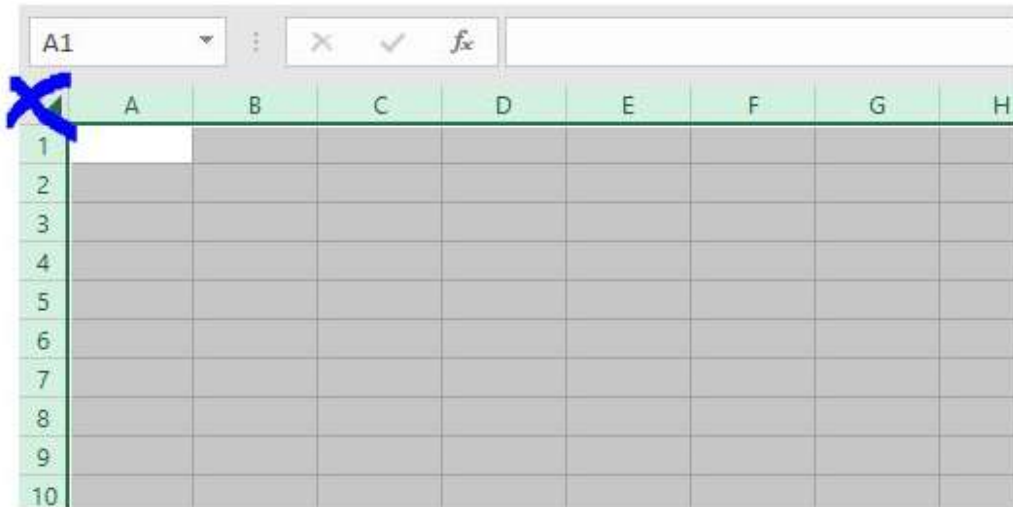
Select an image that is at least 20 pixels by 20 pixels. You may use graph paper to sketch and sample your image.

Follow the directions below to create your image in Excel. You may also see the video at the end of this section for guided instructions.

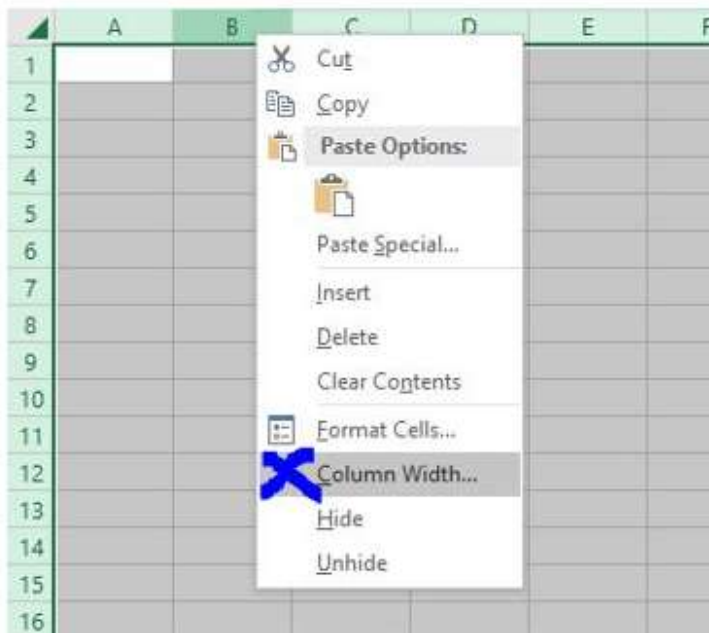
1. **Change cell dimensions.** Pixel Art looks best if the cells have square dimensions: that is the width and height of each cell is the same. Select all cells in the document (left click where the blue X shows below).



Excel Color By Numbers



Right click on any of the column names and select Column Width (see blue X below).



Set the column width to 3.

2. **(Optional) Set Background with image.** If you found an image you would like to replicate, you can place that image in the background as a guide to help you fill in the cells with the correct colors. You will need to have the desired image saved on your Computer.

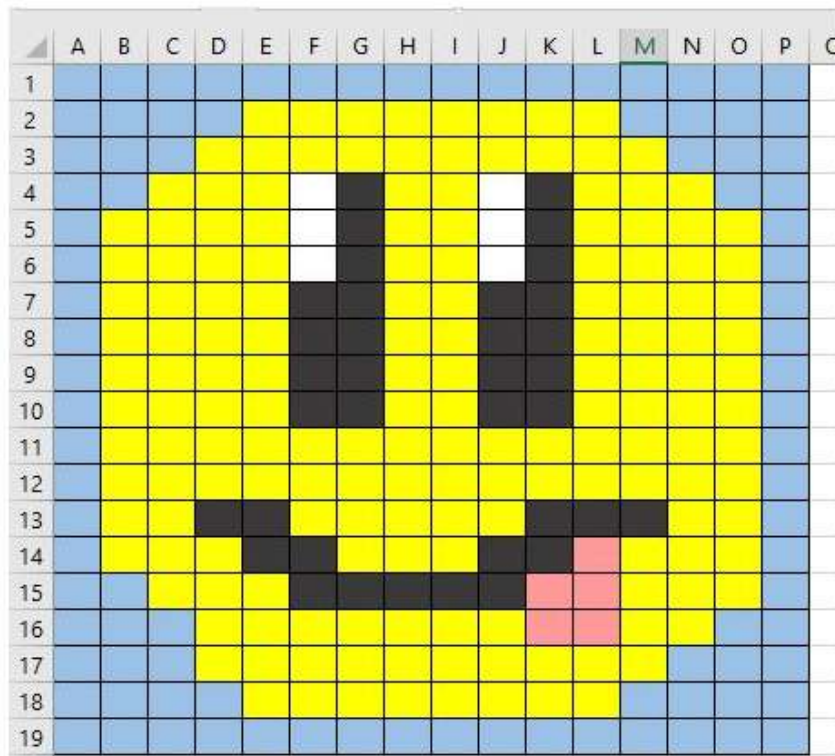
Go to Page Layout -> Background and set the background image as the Saved Image.

3. **Add Borders to your desired area.** Select all the cells that will make up your image. Each cell needs a border so we will know what area to color in later. Use the Border Button in the Font Group.



4. **Use the fill tool.** Give each cell a color. Use the Fill Tool (see image below) to change cell colors. You can use the preset colors or select MORE COLORS to use different varieties.

You're finished! See a sample image below:



PART TWO Color By Number:

You now need to fill in each cell with a given number. Follow the directions below to complete your color by number.

1. **Center the cell contents.** Select the entire art area. In the Home Tab, in the Align Group, select CENTER.
2. **Fill each cell with text.** Go to each cell and assign a number. The cells with the same color need to have the same number. See sample of finished art:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	C
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	
3	1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	
4	1	1	2	2	2	3	5	2	2	3	5	2	2	2	1	1	
5	1	2	2	2	2	3	5	2	2	3	5	2	2	2	2	1	
6	1	2	2	2	2	3	5	2	2	3	5	2	2	2	2	1	
7	1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1	
8	1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1	
9	1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1	
10	1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1	
11	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	
12	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	
13	1	2	2	5	5	2	2	2	2	2	5	5	5	2	2	1	
14	1	2	2	2	5	5	2	2	2	5	5	4	2	2	2	1	
15	1	1	2	2	2	5	5	5	5	5	4	4	2	2	2	1	
16	1	1	1	2	2	2	2	2	2	2	4	4	2	2	1	1	
17	1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	
18	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
20																	

3. **Create a new Sheet.** Press the add button next to the Sheet1 Tab to add a new sheet. In Sheet1, select the entire art project. Copy the art, go to Sheet2, and paste the art on cell B3.

Excel Color By Numbers

While the art is still selected, go to the Fill Tool and Select NO FILL COLOR. Your art should look similar to the image below.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1																			
2																			
3		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
4		1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1		
5		1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1		
6		1	1	2	2	2	3	5	2	2	3	5	2	2	2	1	1		
7		1	2	2	2	2	3	5	2	2	3	5	2	2	2	2	1		
8		1	2	2	2	2	3	5	2	2	3	5	2	2	2	2	1		
9		1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1		
10		1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1		
11		1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1		
12		1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1		
13		1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1		
14		1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1		
15		1	2	2	5	5	2	2	2	2	2	5	5	5	2	2	1		
16		1	2	2	2	5	5	2	2	2	5	5	4	2	2	2	1		
17		1	1	2	2	2	5	5	5	5	5	4	4	2	2	2	1		
18		1	1	1	2	2	2	2	2	2	2	4	4	2	2	1	1		
19		1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1		
20		1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1		
21		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
22																			

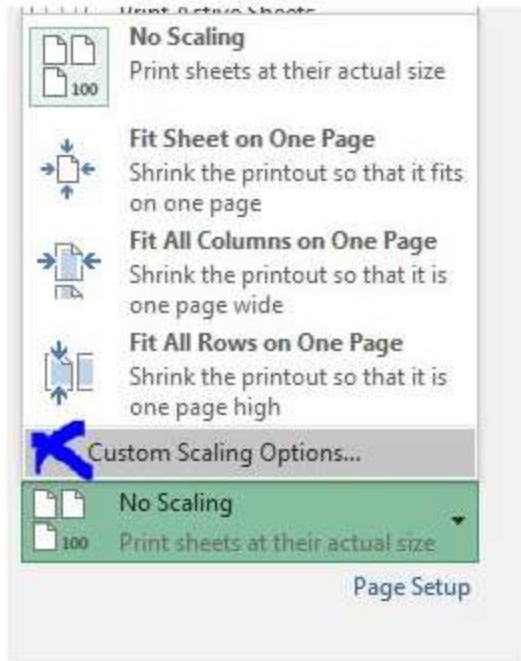
- Add a title.** Select cells B1:??1 (however wide the art is). Merge and Center. Format the title to your liking (the text color, font, and size should be changed)
- Add a key.** Below the art, make a note of what numbers are aligned with what colors.

Excel Color By Numbers

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1		Color By Numbers																	
2																			
3		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
4		1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1		
5		1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1		
6		1	1	2	2	2	3	5	2	2	3	5	2	2	2	1	1		
7		1	2	2	2	2	3	5	2	2	3	5	2	2	2	2	1		
8		1	2	2	2	2	3	5	2	2	3	5	2	2	2	2	1		
9		1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1		
10		1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1		
11		1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1		
12		1	2	2	2	2	5	5	2	2	5	5	2	2	2	2	1		
13		1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1		
14		1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1		
15		1	2	2	5	5	2	2	2	2	2	5	5	5	2	2	1		
16		1	2	2	2	5	5	2	2	2	5	5	4	2	2	2	1		
17		1	1	2	2	2	5	5	5	5	5	4	4	2	2	2	1		
18		1	1	1	2	2	2	2	2	2	2	4	4	2	2	1	1		
19		1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1		
20		1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1		
21		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
22																			
23						1	BLUE		3	BLACK		5	WHITE						
24																			
25						2	YELLOW		4	PINK									
26																			

6. **Change tab names.** You should have two tabs. One tab should be the Color By Number file, the other should be the answer file. Name your tabs accordingly.
7. **Print your Color By Number (optional).** To print the color by number, select File > Print. Change the scaling by choosing custom scaling. Adjust the percent until the image stretches the entire width (the sample below is a 140% scaling).

Excel Color By Numbers



Color By Numbers

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	2	2	2	2	2	2	2	2	1	1	1
1	1	1	2	2	2	2	2	2	2	2	2	1	1	1
1	1	2	2	2	3	5	2	2	3	5	2	2	2	1
1	2	2	2	2	3	5	2	2	3	5	2	2	2	1
1	2	2	2	2	3	5	2	2	3	5	2	2	2	1
1	2	2	2	2	5	5	2	2	5	5	2	2	2	1
1	2	2	2	2	5	5	2	2	5	5	2	2	2	1
1	2	2	2	2	5	5	2	2	5	5	2	2	2	1
1	2	2	2	2	5	5	2	2	5	5	2	2	2	1
1	2	2	2	2	2	2	2	2	2	2	2	2	2	1
1	2	2	2	2	2	2	2	2	2	2	2	2	2	1
1	2	2	2	2	2	2	2	2	2	2	2	2	2	1
1	2	2	5	5	2	2	2	2	2	5	5	5	2	1
1	2	2	2	5	5	2	2	2	5	5	4	2	2	1
1	1	2	2	2	5	5	5	5	5	4	4	2	2	1
1	1	1	2	2	2	2	2	2	2	4	4	2	2	1
1	1	1	2	2	2	2	2	2	2	2	2	2	1	1
1	1	1	1	2	2	2	2	2	2	2	2	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

1 BLUE 3 BLACK 5 WHITE

2 YELLOW 4 PINK