



TO INDICATE GROUPS OR CATEGORIES OF ELEMENTS

#### SYMBOL VARIATION

TO INDICATE DIFFERENT INSTANCES OF THE SAME TYPE WITH TINY EXTRA SYMBOLS TO REPRESENT A SPECIAL ENTRY.

#### THICKNESS and LENGTH

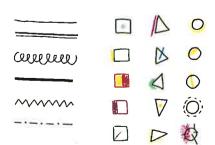
TO VISUALIZE INCREASING DURATIONS OR INTENSITIES

#### LEFT AND RIGHT

FOR INDICATING A
BEFORE-AND-AFTER SITUATION

#### SHAPE VARIATION

LOOK AT HOW MANY VARIATIONS THERE ARE FOR A LINE, A SQUARE, A CIRCLE, OR A TRIANGLE!



# DRAWING RULES + DATA =



Drawing with data requires setting up drawing rules that work well to represent any data, from a very small to a very large number.

Test how this works on the page by following the rules below to draw the outcomes for the remaining five numbers.

AS THE VALUE INCREASES	1	2	3	4	5	6

the dot gets bigger

the line gets thicker

the circle gets darker



the square grows redder



AS THE VALUE INCREASES	1	2	3	4	5	<i>6</i> →
the shape has more sides	$\triangle$		ii.			
the line gets wobblier	}					

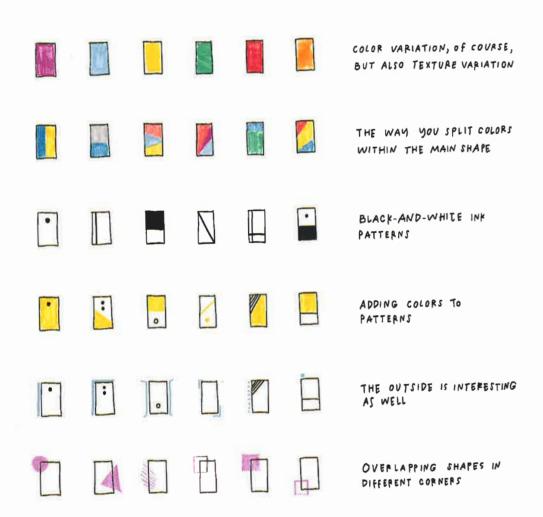


the square's pattern becomes more crosshatched



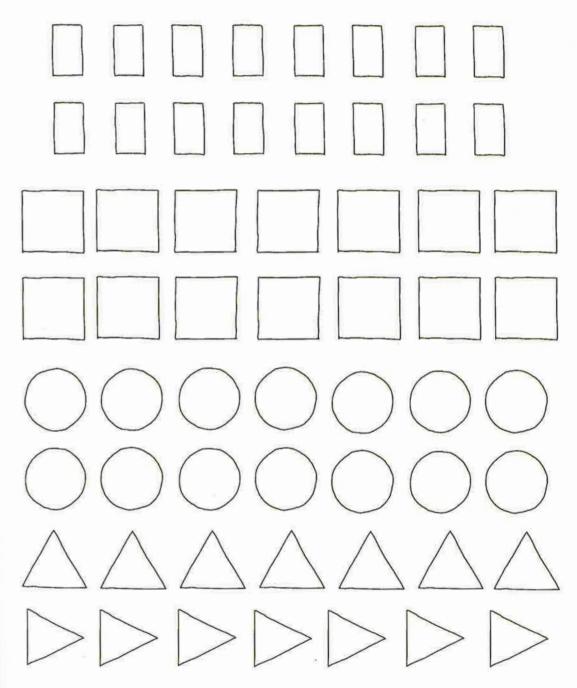
# HOW MANY VARIATIONS TO A RECTANGLE?

THIS IS A FIRST STEP TO BUILDING YOUR OWN VISUAL VOCABULARY: TAKE A VERY SIMPLE SHAPE, AND PLAY WITH ADDITIONS AND MODIFICATIONS.



COLOR COMBINATIONS, COLOR SPLITTING, and POSITIONS
AND ROTATIONS OF THE ELEMENTS ARE EASY WAYS
TO PRESENT VARIATIONS and DIFFERENCES IN YOUR DATA!

### THIS IS A PAGE FOR YOU TO PLAY ON!



EXPERIMENT WITH DIFFERENT COMBINATIONS, OVERLAPS, TEXTURES, and DRAWING MATERIALS, DRAWING AS MANY VARIATIONS ON THE MAIN SHAPES AS YOU CAN.

### COLOR PALETTE TESTING

On this page, test out possible color palettes for your drawings!

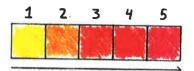
### CATEGORICAL COLOR PALETTES:

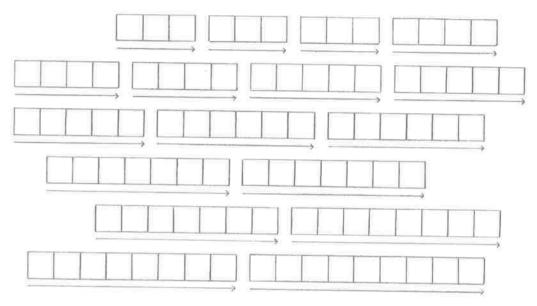
These colors are used to represent categories that are very different from each other, so the colors you choose must be different enough to easily tell apartl



### SEQUENTIAL COLOR PALETTES:

A set of colors that progress step-by-step in ONE direction, Used for increasing Values and intensities.





# DIVERGING COLOR PALETTES:

A set of colors that progress step-by-step in Two directions, Used to represent values and intensities that move in two directions from a central position.

