Project: Wallpaper

1. Create 2 variations of a desktop background using repeated elements. The design should be easily altered by changing the values in the for loop to create variations in the design.

Requirements:

- Your canvas should be 800 x 450
- The program should include at least one for loop
- The for loop(s) should be used to increment values such as width, height, or color
- Variations should result from changing different values in the loop. The designs should not only vary in color. Play with size, number of repetitions, etc.

2. Finally, create a third variation that uses the random function to generate random variations of one of your variations from above. It should randomize the color or size while keeping the design in place.
3. Submit the three variations to Schoology

Project: Switch Game

Create a p5 program that will have at least 6 buttons - light switches. Each light switch should control several other lights, and maybe also the light you clicked. Create a solvable puzzle game in which you need to find the right order to press the switches so all lights are turned on at once.

Requirements:

- Create a game with at least six clickable buttons
- Create a flowchart of your game so you can guarantee that there is a combination of switches that you can click to turn them all on, solving the puzzle
- Create a p5 program where each switch turns a combination of lights on/off
- Figure out how to draw a new background and scene if you win so that the player knows that they have completed the challenge
- Figure out how to keep score and make something happen if the player has clicked too many times without solving the puzzle.
- Add sound to your game