Mural Program Storyboard

Let's write the program for the Circuit Playground on your mural piece.

1. **NAMING SECTION:** Declare the variables for your components. Use descriptive names so you know what is what when you are writing the rest of your program:

   ```
   //Name LEDs
   int _____________ = ____;
   
   //Name 2 switches/buttons
   int _____________ = ____;
   ```

2. **SETUP SECTION:** In the setup() function, initialize the LEDs and switches you declared in the naming section.

   ```
   void setup(){
       pinMode(______________, ________________);
   }
   ```

3. **Describe your 4 light patterns:**
   - Pattern 1:
   - Pattern 2:
   - Pattern 3:
   - Pattern 4:
BUILDING BLOCKS SECTION:

4. Write the functions for your different light patterns from #3, one in each box:

```c
void _____________________________() {
}
```
```c
}
```
5. Set the states of the two switches you named in #1 and setup in #2 to two new variables
   
   ```
   void loop() {
     int sensorVal1 = digitalRead(__________);
     int sensorVal2 = digitalRead(__________);
   }
   ```

6. Describe which pattern will run based on states of sensorVal1 and sensorVal2. Remember: sensorVal1 and sensorVal2 can have the state of HIGH or LOW.

7. ACTIVITY SECTION: Program the loop() function to choose light patterns based on the 2 switches.

   ```
   void loop() {
     int sensorVal1 = digitalRead(_______);
     int sensorVal2 = digitalRead(_______);

     if (sensorVal1 == ______ && sensorVal2 == ______) {
       _________________;
     }
   }
   ```

8. Copy your code into your program, test, and debug.
9. In your own words, describe how your program chooses which light pattern function to call in the loop() function: