

Once and Flor-al

Abstract:

We aimed for a code that is used to construct any 2D object on paper based on the anatomy of a flower. The code is a very short hand style. The method is to create an object with 2D geometric shapes.

Visual Units

- 1 Petal = 1 US Quarter
- A Handful = Interpretive unit

Navigation Commands:

- Plant = starting point
 - Syntax: Plant_ "Location"
 - Locations: Center, top left, top right, bottom left, bottom right, bottom middle
- Branch = move in direction for so many units
 - Syntax: Branch_ "Direction" (unit of measure)
 - Directions: North, South, East, West

Interpretive Commands:

- Spikey - a lot of spikes around object
- Rounded - no sharp corners on object
 - Affects everything drawn underneath command
 - Syntax:
 - Spikey()
 - Rounded()

Drawing Commands:

- Grow = drawing command
 - Syntax: Grow_”Shape” (“Color”, height, width)
 - Height = up
 - Width = to the right
 - Shapes:
 - Stem = straight line
 - Leaf = triangle
 - Pot = rect
 - Flower = circle with 5 triangles around it
 - Color:
 - Rose (R) = Red
 - Daisy (D)= Yellow
 - Violet (V)= Blue
 - Rose + Daisy (RD)= Orange
 - Violet + Rose (VR)= Purple
 - Daisy + Violet (DV)= Green

Repetition and Control Structures:

- Repeat until ()
 - Syntax: repeat until (Leaf reaches border) {

 Branch_East (3 petals)

 Grow_Leaf

}

- If, Else
 - Syntax: if Leaf(color)=Stem(color) {

 Grow_Pot()

}else{

 Grow_Flower()

}

Codes & Drawings

Sean's Code

Plant_TopCenter

 Rounded()

 Grow_Pot (DV, 4 petals, 4 petals)

Branch_South (1 petal)

 Grow_Pot (DV, 8 petals, 4 petals)

Branch_SouthWest (1 petal)

 Grow_Leaf (DV, 4 petals, 2 petals)

Branch_East (3 petals)

 Grow_Leaf (DV, 4 petals, 2 petals)

Plant_TopCenter

Branch_South (1 petals)

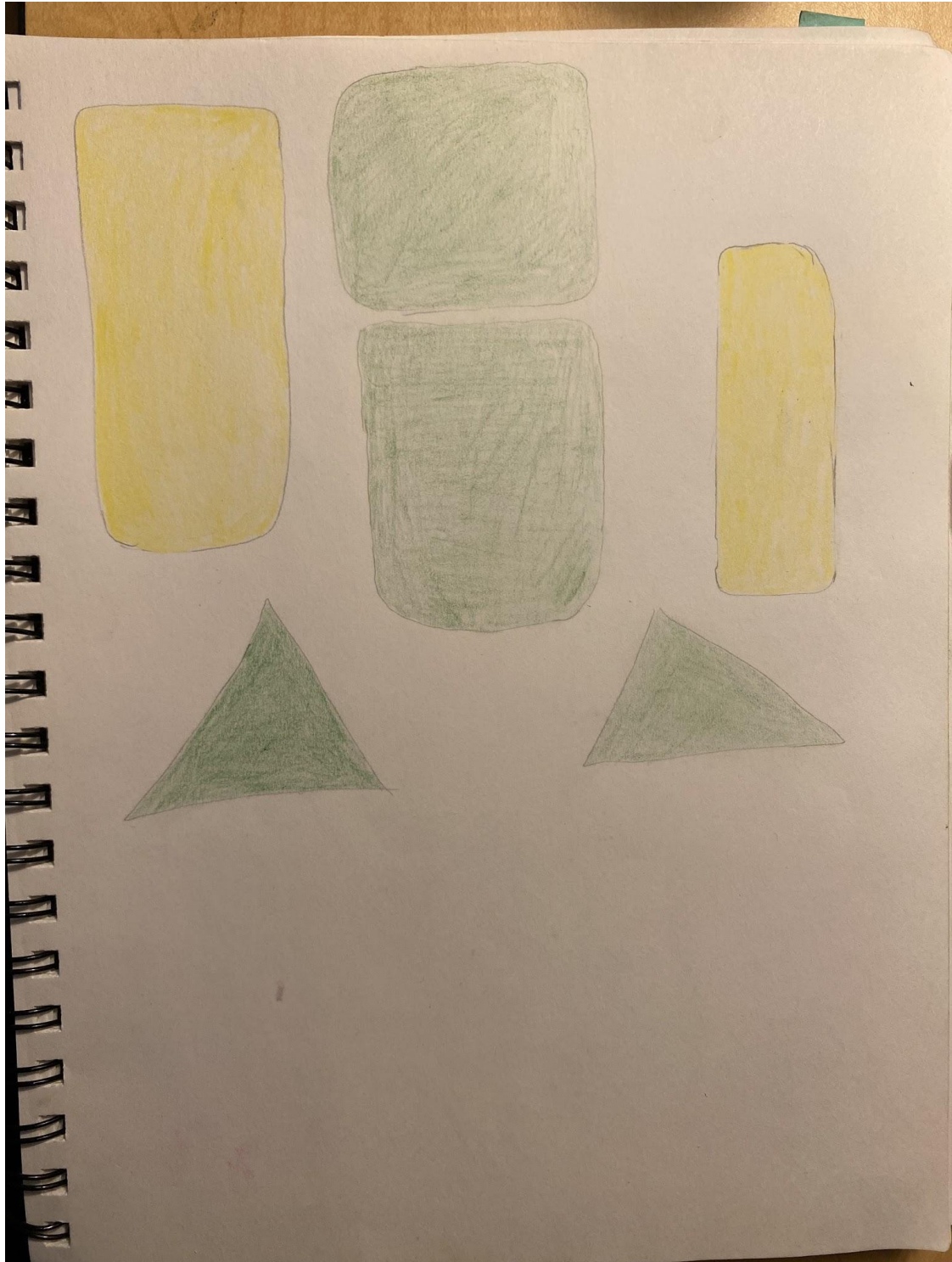
Branch_East (4 petals)

 Grow_Pot (D, 6 petals, 2 petals)

Branch_West (4 petals)

 Grow Pot (D, 6 petals, 2 petals)

Drawn by David



Lily's Code

Plant_BottomCenter

 Grow_Pot(R, 4 Petal, 3 Petal)

Branch_North(4 Petal)

 Grow_Stem(DV, 7 Petal, 1 Petal)

Branch_North(7 Petal)

 Rounded()

 Grow_Flower(RD, 3 Petal, 3 Petal)

Branch_South(3 Petal)

Repeat until(Leaf reaches Pot) {

 Spikey()

 Grow_Leaf(DV, 2 Petal, 2 Petal)

 Branch_South(3 Petal)

}

Plant_BottomRight

 Spikey()

 Grow_Leaf(DV, 2 Petal, 2 Petal)

Drawn by Cris



Cris's Code

Grow_Pot(R,D)

Plant_center

Branch_North (2 petals)

Grow_Flower (R, 2 petals, 4 petals)

Plant_center

Branch_North (6 petals)

Grow_Stem (DV, 5 petals, 2 petals)

Plant_Center

Branch_North (2 petals)

Grow_Leaf (DV, 2 petals, 2 petals)

Plant_Center

Branch_North (3.5 petals)

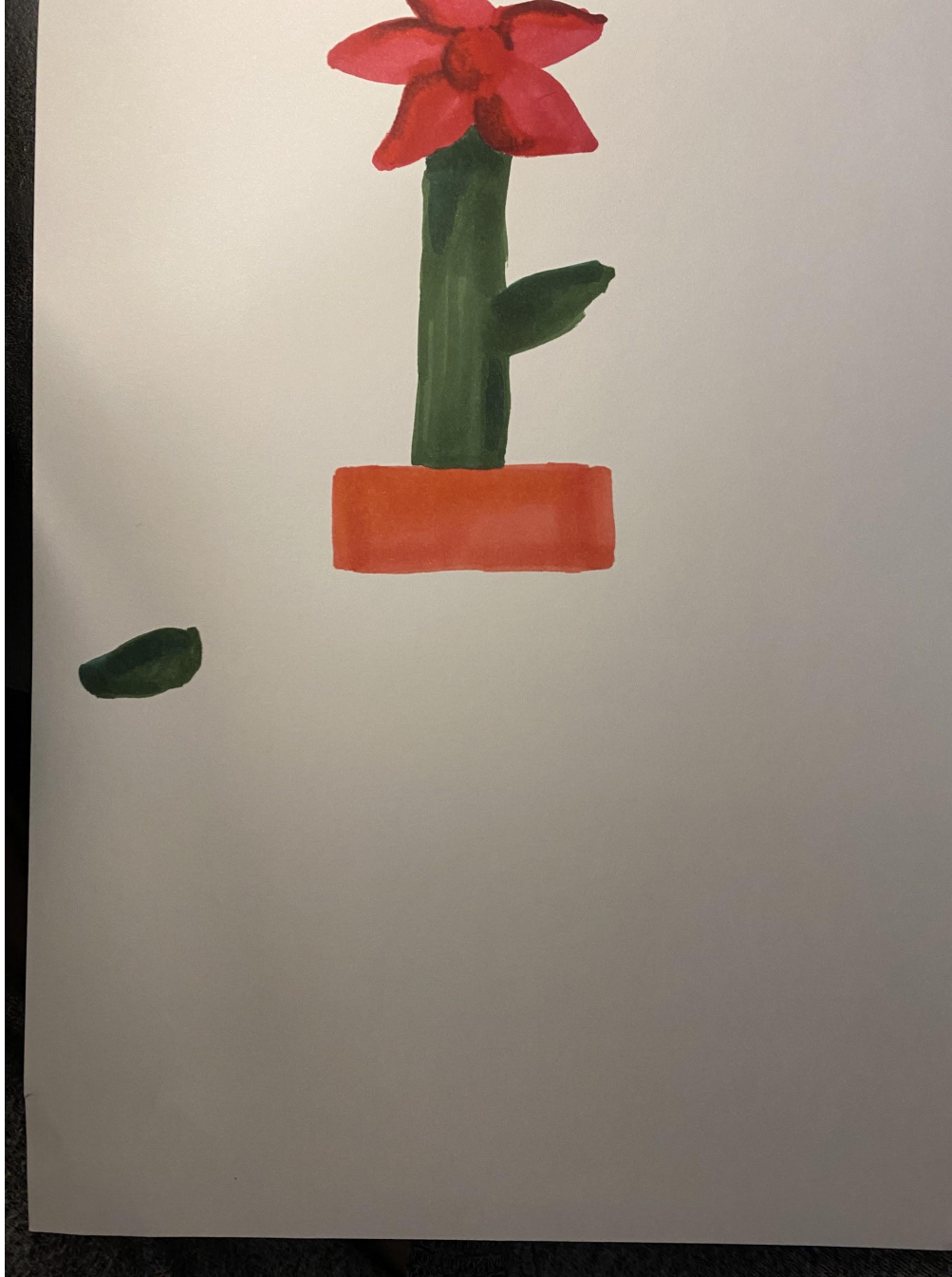
Branch_West (2 petals)

If leaf (color)=stem (color) {

Grow_Leaf

}

Drawn by Lily





David Zenteno

```
Plant_Center()
```

```
  (grow_Flower(RD, 2 Petal, 2 Petal))
```

```
Plant_Center()
```

```
  (grow_Stem(DV, 4 Petal, 1 Petal))
```

```
  Branch_South()
```

```
Plant_BottomMiddle
```

```
  (Spiky(R, 3 Petal, 2 Petal))
```

```
  (grow_Pot(R, 3 Petal, 2 Petal))
```

```
if (Pot(width) = Flower(width))
```

```
{
```

```
  Plant_TopRight()
```

```
  (grow_Flower(D, 1 Petal, 1 Petal))
```

```
}
```


Drawn by Sean

