

STEAMCODED.ORG

## Coding a Flower in SVG on a 800 by 800 grid

Copy the code from: http://steamcoded.org/lessons/grid800x800.svg.txt and save the file as Flower.svg and open the file in a browser.

In the editor, add the SVG elements (per instructions below) where indicated in the SVG code, i.e. inside the second grouping (<g> element). Important: Save the file and refresh the browser after each step.

1: Create an outer grouping <g> element, style: stroke:black;stroke-width:4px;
2: Create the first inner grouping <g> element as a child element of the outer grouping created in step 1, style: fill:rgb(239,28,37);

3: Draw an ellipse at $(400,235)$, x-radius: 65 , $y$-radius: 215 as a child of the inner grouping created in step 2 , then create similar ellipses rotated every 36 degrees about point $(400,400)$, which is the center of the grid.

4: Create a second inner grouping $\langle g\rangle$ element as a child element of the outer grouping created in step 1, style: fill:rgb(249,148,30);

5: Draw an ellipse at $(400,320)$, x-radius: 80 , $y$-radius: 180 as a child of the inner grouping created in step 4, then create similar ellipses rotated every 36 degrees about the center of the grid.

6: Draw a circle around the center of the grid with a radius of 200, style: fill:yellow;
7: Create a third inner grouping <g> element as a child element of the outer grouping created in step 1, style: fill:black;stroke:none;

8: Draw a circle at $(400,225)$, radius: 10 as a child of the inner grouping created in step 7 , then create similar circles rotated every 30 degrees about the center of the grid.

9: Create a fourth inner grouping $\langle\mathrm{g}\rangle$ element as a child element of the outer grouping created in step 1, style: fill:rgb(58,181,75);

10: Draw an ellipse at $(400,325)$, x-radius: 35 , $y$-radius: 75 as a child of the inner grouping created in step 9 and rotate it 36 degrees about the center of the grid. then create similar ellipses rotated an additional 72 degrees about the center of the grid.

11: Draw a circle around the center of the grid with a radius of 60 , style: fill:rgb(0,174,242);

When complete, change the style attribute of the first element from "display:initial" to "display:none" which hides the grid. Then change the style style attribute of the second element from "opacity:0.5" to "opacity:1"

